

Challenges of Exporting Differentiated Products to Developed Countries:

The Case of SME-Dominated Sectors in a Semi-Industrialized Country

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Abstract*

This paper surveys four Argentinean industries—light ships, television programs, wines, and wooden furniture—that have experienced substantial export growth in recent years, particularly to developed countries. The case studies first describe the structure of the industries, then characterize the emergence of export pioneers and the subsequent process of diffusion. Finally, they analyze the role played by public institutions. Across sectors, the appearance of a pioneer is largely explained by a knowledge advantage relative to other industry participants regarding foreign markets, which the pioneer acquired *previously* and *independently* of his decision to export. Diffusion occurs across as well as within sectors, as pioneers' knowledge is relevant to other industries. Since diffusion does not necessarily hurt the pioneer, public policy has a potentially important role in fostering diffusion within and across sectors.

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1. Introduction

In recent decades, several developing countries have undertaken impressive processes of export-led growth. Economies that previously exported almost exclusively primary products rapidly shifted their export structure toward manufacturing. Argentina, in contrast, has not experienced analogous export success in manufacturing. Despite the fact that Argentina initiated its industrialization process decades earlier than most other developing countries, the country's manufacturing exports have not shown outstanding dynamism and are not a dominant component of its export structure. Argentina has apparently been unable to leverage its pre-existing industrial experience in the global economy.

The opaque performance of Argentina's manufacturing, however, hides the stories of a number of entrepreneurs (and their firms) who are achieving considerable success in exporting manufactured and differentiated products to developed countries on a consistent basis—the type of export success most notably absent in the economy as a whole. These entrepreneurial stories are the focus of this paper. We develop case studies of their export activity and the subsequent export dynamism of their sectors, which their activity helped to generate. In particular, we identify the factors that made these export pioneers successful. Identifying these factors is critical for understanding why most other firms that could potentially export, fail to do so. Even though the case studies involve economic sectors with very different characteristics, the factors explaining the appearance of export pioneers are strikingly similar.

We develop a theoretical framework that takes elements from the pioneer-diffusion model of Hausmann and Rodrik (2003) and Hausmann, Rodríguez-Clare, and Rodrik (2004). As in that model, our framework emphasizes the existence of an uncertainty environment surrounding domestic firms before a new activity (in this case, exporting) has taken place. We further explain the concepts of “discovery,” “pioneer,” and “diffusion,” which allows for better characterizations of the regularities found in the case studies. We focus on pioneering activity involving exports that are substantial, sustainable, and primarily targeted toward developed countries.

Our case studies cover four industries—light ships, television programs, wines, and wooden furniture—that have experienced substantial export growth in recent years. These industries all produce differentiated products, and encompass a broad range of economic activities. The case studies first describe the structure of the industries. Then, they characterize

the emergence of the export pioneers and the subsequent process of diffusion. Finally, they analyze the role played by public institutions.

We find a number of regularities that are common across these sectors. Among them, the most remarkable regularity is that, in all of the case studies, the appearance of a pioneer is largely explained by a knowledge advantage relative to other industry participants regarding the tastes, operation, and business practices of foreign markets, which the pioneer acquired *previously* and *independently* of his decision to export. This regularity has several implications that reject *a priori* reasonable presumptions about potential determinants of pioneering export activity. First, export pioneers do not differ from other entrepreneurs solely in terms of entrepreneurial ability or a lucky realization of an uncertain investment. Second, their advantage does not relate to production knowledge, but to marketing knowledge. Third, the knowledge necessary to export does not seem to be acquirable as a result of a conscious effort to develop an export strategy. Export pioneers only seem to emerge among those who already possess this knowledge.

These findings do not warrant pessimism. The results characterize an environment that is only present at a particular period of a country's export development process in which exports of differentiated products to developed countries are only incipient. The pioneers' actions diffuse to other firms in their sectors that later follow their steps. Furthermore, diffusion also occurs across sectors, as the advantage of pioneers is based on knowledge that is relevant for other industries as well. Public policy then has a potentially important role in fostering such diffusion within and across sectors. The potential importance of public policy is strengthened by our finding that, in contrast to the implications of Hausmann and Rodrik (2003), diffusion does not necessarily hurt the pioneer. On the contrary, diffusion always benefits the pioneer during its early stages, in most cases due to increased foreign awareness of the country as a potential exporter.¹

This paper is organized as follows. Section 2 explains the scope of the study. Section 3 describes the theoretical framework. Section 4 presents the findings that are common across case studies. Section 5 discusses policy lessons that can be derived from these findings. Finally, Section 6 presents the four case studies of this research work: light ships, television programs, wine, and wooden furniture.

¹ See Vettas (2000) for a model of endogenous demand in which diffusion can benefit the pioneer.

2. Scope of the Study: Exports of Differentiated Products to Developed Countries

The objective of this study is to understand and characterize the emergence of export activity in economic sectors previously oriented toward the domestic market. We studied firms and sectors in a semi-industrialized country (Argentina), focusing mainly on exports to developed economies as the destination market. The economic sectors that were studied have some common features: they produce differentiated goods and are mostly populated by small- and medium-sized enterprises. This section explains the reasons for constraining the scope of the study to exports to developed economies and describes the criteria that were used to select the case-study sectors.

2.1 Scope of the Study

Argentina is a country with a considerably diversified industrial base, largely developed during the period of import-substituting industrialization. In most industrial sectors, there are well-established firms that have been operating (even occasionally exporting) for decades. Despite the long presence of local firms supplying the domestic market, export activity in most sectors has traditionally been scarce. The lack of export activity is particularly salient in the case of differentiated goods; a substantial fraction of exports of industrial products consists of commodities such as paper pulp, aluminum, and petro-chemicals.

During the past two decades, many developing countries initiated processes of impressive export growth largely directed toward developed countries. The strong export performance of those countries is usually attributed to a combination of policy changes (such as opening their economies to foreign trade and investment) and worldwide technological advances (such as drastic reductions in transportation, information, and communication costs). As occurred with many other Latin American countries, Argentina also liberalized its foreign trade and investment regimes and benefited from similar technological advances. However, export growth in Argentina has been considerably less spectacular than in other countries, mostly with regard to differentiated-product exports to developed countries. While Argentina's total exports grew by a factor of 3.3 from 1991 to 2005, exports of differentiated products to OECD countries grew by a factor of 2.6. These exports accounted for only 4.5 percent of total exports in 2005.²

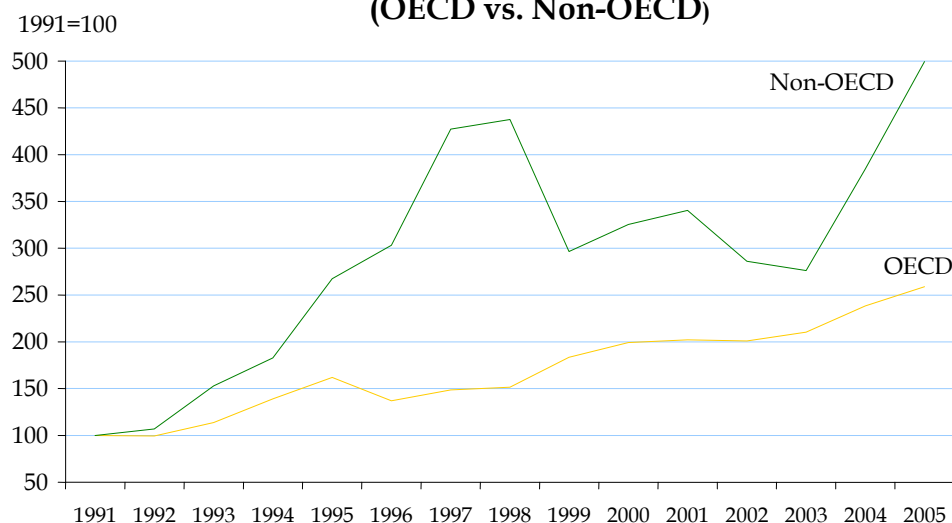
² The classification of goods as differentiated or non-differentiated follows Rauch (1999). OECD countries are members of this organization in 1991.

We distinguish between exports going to developed countries and exports going to developing economies because of the very different hurdles involved in exporting to countries in each of those categories. In particular, successfully entering markets in developed economies with differentiated products requires potential exporters to make substantial efforts to upgrade the physical characteristics of their products and to make their marketing practices more sophisticated. Most Argentine producers of those products lack the knowledge and information to make those efforts efficiently and thus, they choose not to attempt a committed export strategy.

A detailed description of the hurdles domestic firms need to overcome to export is provided in the next section and later on in the case studies. Here, we want to point out that one of the main pay-offs of making those production and marketing efforts is a reduction in the products' degree of substitutability relative to those offered by competitors (in other words, products become more differentiated).³ As a consequence of the higher differentiation, foreign sales to developed countries tend to be more stable. Figure 2.1 shows the evolution of Argentina's exports of differentiated products to OECD versus non-OECD countries from 1991 to 2005. The graph shows that while exports of differentiated goods to non-OECD countries are sensitive to changes in costs relative to other countries, such as those induced by the Brazilian devaluation in 1999 and by the Argentine devaluation at the end of 2001, exports of those goods to OECD countries follow a path that is notably less volatile.

³ The equilibrium relationship between product quality and the extent of differentiation is analyzed in Coibion, Einav and Hallak (2007). Marketing efforts can also affect the extent of differentiation even for physically identical products.

Figure 2.1
Argentine Exports of Differentiated Products
(OECD vs. Non-OECD)



Source: Authors' calculations based on UN-COMTRADE and Rauch (1999).

This slower but more persistent export growth is driven by an increasing number of firms that have been able to overcome the challenges of exporting differentiated goods to developed markets. The analysis of why those firms have achieved this type of export success and how this success induces export success of other firms is the focus of this paper. Even though they represent a very small fraction of the population of firms, understanding what determines their success is critical because it allows us to understand why other firms fail to export. This knowledge is essential in creating effective public policies for the promotion of exports.

In addition to focusing on emerging export activity in sectors that produce differentiated goods and export to developed countries, the case studies presented here cover sectors mostly populated by small- and medium-sized enterprises (SMEs).⁴ Large firms—often multinationals—must also meet similar requirements to access developed-country markets, but they have different (and usually smaller) constraints in overcoming them. While it is also important to understand these firms, we prefer to keep our focus on firms in sectors that share a common set of basic characteristics even at the cost of narrowing the scope of the study. The breadth of industries to which the analysis applies is still wide enough to represent a large fraction of the economy. Therefore, the conclusions of this study could potentially be the basis

⁴ A few large firms in the Wine and Television Program industries are exceptions. However, smaller firms in both industries still capture a large fraction of production and exports.

for the design and assessment of a variety of public policies aimed at fostering industrial development.

2.2 Choice of Sectors for Case Study

We chose to study in detail firms in four economic sectors: Light Ships, Television Programs, Wine, and Wooden Furniture. These sectors are similar along several dimensions. First, they export differentiated products. Second, they all ship a substantial fraction of their exports to developed economies. Third, none of these sectors shows high levels of economic concentration. Fourth, they have experienced strong export growth in the past 15 years. There are sectors other than these four that share the same characteristics. Appendix 1 presents a brief statistical analysis of export performance in Argentina at the sectoral level in which a set of quantitative and qualitative criteria are applied to identify such sectors.

Among the sectors with such common characteristics, we chose these four because they span a diverse set of broadly defined economic categories: agriculture-based manufacturing (Wine), traditional industrial manufacturing (Wooden Furniture), non-traditional industrial manufacturing (Light Ships), and services (Television Programs). As a result, they can generate broader lessons as a group than possible alternative choices.

3. Theoretical Framework

Hausmann and Rodrik (2003) and Hausmann, Rodríguez-Clare, and Rodrik (2004)—which together will henceforth be called “HR”—argue that the emergence of new economic activities in developing countries is characterized by a substantial degree of uncertainty regarding production costs. This uncertainty is only resolved in a particular country once the new activity is carried out there, even if it has been performed in other countries for years. Then, for a new activity to emerge, a pioneer needs to embark on a costly venture of uncertain outcome. This venture might be successful, but it might also turn out not to be profitable. HR argue that, in addition to the venture risk, another factor hampers pioneering activity. Even if the uncertainty turns out to be favorably resolved, knowledge of the successful outcome could be easily transmitted to other firms that might imitate the pioneer, dissipating the rents he has generated.

From a social perspective, there is a problem analogous to the standard dilemma found in the patents literature: finding the extent of patent protection that optimally balances the trade-off

between incentives for invention and early diffusion. As opposed to this standard dilemma, however, when the “invention” in question is the “discovery” of a new activity’s production costs in a particular country, it is not possible to resolve this trade-off through the patent system because such knowledge simply cannot be patented. As a result, HR assert that developing countries suffer below-optimal “discovery activity,” as the potential monopoly rents of pioneers—which would induce them to invest in those activities—is rapidly dissipated by the early entry of imitators.

The HR framework is in principle suitable for analyzing emerging export activity in differentiated products from a developing country (like Argentina) to developed countries. Since Argentina’s exports have been historically concentrated on agricultural and industrial commodities, this activity is likely to be subject to uncertainty about production costs.⁵ To the extent that the nature and outcome of the risky investments that a pioneer makes to discover all the implications of an export venture are observable to other firms, which can then imitate, the pioneer’s private returns will be lower than the social returns he generates. As in the HR framework, such a market failure will induce below-optimal investment by pioneers.

In this section we present a framework that adapts elements from the HR model. Based on the case-study findings, we provide more specific content to the conceptual apparatus of that framework. We first argue that generating sustainable export growth requires a firm to adopt a set of business practices that is substantially different from the set of practices that are necessary to compete successfully in the domestic market. We distinguish between the two by calling them, respectively, the “export business model” and the “domestic business model.” Then, we redefine the terms “discovery,” “pioneer,” and “diffusion,” which are the central concepts in HR, to be consistent with the theoretical framework we propose.

⁵ We argue later that exporting, as a new activity, is subject to additional layers of uncertainty that go largely beyond uncertainty about production costs.

3.1 Export Business Model versus Domestic Business Model

A firm in a developing country that attempts to succeed in selling differentiated products to foreign markets—especially those of high-income countries—needs to change several of its business practices. We categorize those changes into two broad groups: “product upgrade” and “marketing upgrade.” The central elements that characterize product and marketing upgrades are not necessarily identical for every sector. However, many of those elements, which are described next, are shared by some or all of the industries included in this study.

3.1.1 Product Upgrade

Consumer demand has idiosyncratic and specific components in different countries. In particular, consumers in developed countries tend to demand products of higher quality, which in general have more sophisticated designs, are made of better materials, or are less likely to malfunction. Because of the different characteristics of consumer demand in foreign countries, domestic producers in developing countries who attempt to enter foreign markets need to upgrade their products and manufacturing practices to satisfy the higher quality standards and/or specific needs and preferences of the markets they target.

Product upgrade imposes several requirements on domestic firms. First, they need to upgrade and customize the design of their products, which requires the capability to map the specificity of foreign consumers’ needs and the higher quality standards into their design and product-development processes. This adjustment might involve subcontracting these activities to third parties or developing the capability inside the firm (for example, by hiring specialized designers). Second, firms need to upgrade the production process to meet the higher quality standards of developed countries. Meeting this requirement usually creates the need to develop new practices for quality attainment. Third, firms might also require that suppliers and service providers upgrade their products/services to accompany their own upgrade, which often involves deepening customer–supplier relationships.

3.1.2 Marketing Upgrade

Substantial changes in marketing practices are also an essential requirement for successfully exporting to foreign (developed country) markets. First, firms need to develop the capability to understand the preferences and needs of foreign consumers. In the domestic market, these firms are naturally embedded in an environment that continuously provides them with spontaneous

signals about consumer needs and their reaction to the firms' products, but analogous feedback from consumers in the foreign market is not as easily available or interpretable. Therefore, firms need to learn how to obtain this information in a more systematic manner. Firms also need to understand the nature of competition in foreign markets in order to decide what markets to target and define a positioning strategy in those markets. While their accumulated experience in the domestic market allows them to easily predict competitors' and consumers' reactions to their own strategies, this experience is usually of little use in predicting those reactions in the foreign market. In the case of branded products, firms also need to formulate a branding strategy. In the domestic market—which is often small relative to the size of foreign markets—brand recognition is likely the consequence of the firm's long presence in the market. Entering foreign markets, in contrast, requires a well thought-out brand positioning strategy, since competition in those markets is usually more intense.

In addition to focusing on the end customer, firms need to understand the structure of distribution networks in the export market in order to choose and develop the distribution channels most appropriate for reaching consumers in their target segment. They also need to understand the needs, requirements, incentives, and constraints of their distributors, who are their next-tier customers. Addressing their needs and requirements (such as timely delivery, quality consistency, and packaging requirements) is a key factor in gaining access to foreign distribution channels. Failure to conform to the channel's requirements can be interpreted as a signal of non-reliability and risks the continuity of the business relationship with the channel. Satisfying the requirements of distributors is distinctively important for exports to developed countries since the negotiating power of distributors in those countries is often larger than the negotiating power of domestic distributors (potentially due to their larger scale and larger set of potential suppliers). A good match between the domestic firm and the foreign distributor is also important. For example, large distributors might have more access to retail outlets but fewer incentives to make specific investments to foster sales of a small supplier. In some sectors, firms might need to implement post-transaction elements of customer service specific to the foreign market. Repair and maintenance, for example, requires mobilizing resources in each of the targeted foreign markets to establish the necessary network of service providers.

3.1.3 Two Contrasting Business Models

There are two main types of business models, and the difference between them hinges on product and marketing upgrades. In the “domestic business model,” product and marketing upgrades have not been implemented. Most domestic firms, which are unable to export on a consistent basis, follow this business model. In the “export business model,” product and marketing upgrades have been implemented; firms that are successful in exporting differentiated goods to developed countries follow this model.

We divide the required changes in business practices into product and marketing upgrades for analytical and expositional convenience. However, it is important to note that the two upgrades are fundamentally intertwined. In particular, both need to be implemented to transition from the domestic to the export business model.

3.2 Central Concepts: “*Discovery*,” “*Pioneer*,” and “*Diffusion*”

This paper refers to the central concepts of “discovery,” “pioneer,” and “diffusion.” In a hypothetical case, *discovery* can be narrowly defined as being one significant action that is crucial for a particular industry’s export success. For example, a discovery could be finding that a specific modification to the product design dramatically increases its acceptance in the targeted market or realizing that on-time delivery is a baseline requirement. However, our case-study findings indicate that there is seldom such a “silver bullet.” In fact, we find that there are always several changes that must be implemented jointly to develop a sustainable business in a foreign market. Consequently, we adopt a broader definition of *discovery*: we define it to be the implementation of a successful export business model for the first time in a given country.

Firms that fail to implement the required upgrades might still be able to carry out sporadic exports or export regularly to developing countries. However, they will not be able to achieve substantial and sustainable exports to developed countries, which would require a number of improvements and adaptations in the firm’s way of conducting business that need to be undertaken jointly.

We define a *pioneer* as being the individual (or firm) who makes the discovery, i.e., the one who first implements a successful export business model. The discovery might come about as the result of the pioneer’s actions or because of luck. For example, part of the implementation of a successful export business model might result from the pioneer imitating a product design or

replicating the way foreign firms relate to distributors. Or, a discovery might be due in part to the successful outcome of an uncertain investment or even to mere coincidence. Hausmann and Rodrik (2003) mention discoveries with precisely these two components; pioneers imitating the products of foreign firms and also uncovering low production costs for those products in their countries. However, a successful export business model can also be developed in part through a lengthy process of experimentation and learning, along which the outcome of specific decisions and investments provides the pioneer with valuable information that helps him make subsequent choices. In addition, the ability to implement a successful export business model can also stem from an information and knowledge advantage held by the pioneer as a result of his experience in related or unrelated activities. As will be discussed later, this advantage turns out to be crucial.⁶

The successful implementation of an export business model by a pioneer generates knowledge that eventually diffuses to other firms. *Diffusion* can take a specific or a general form. *Specific diffusion* is the transmission of knowledge about particular elements of the product and marketing upgrade implemented by the pioneer. For instance, specific diffusion could involve the characteristics of a new package or the details of the pioneer's marketing efforts. *General diffusion* is broader in scope; it is the transmission of the knowledge that a successful export business model does exist, even if some or all of its elements are not known.

4. General Findings

4.1 An Environment of Uncertainty

When domestic producers assess the potential profitability of an export venture before discovery and diffusion have taken place in their industry, they face various sources of uncertainty. In general, a potential source of uncertainty stems from each of the dimensions—described in the previous section—along which firms need to upgrade product and marketing. For example, firms face uncertainty related to the cost of acquiring the necessary equipment and implementing quality control practices or to their ability to find the right suppliers for the sourcing of parts required for the upgrade. They also face uncertainty about which markets to target and about their ability to design or adapt products that appeal to foreign consumers in those markets.

⁶ The introduction of experimentation and learning and information advantage as factors facilitating discovery implies a potential tension between the standard connotation of the word “discovery” and the definition provided in

The uncertainty associated with the profitability of a potential export venture—before discovery and diffusion have taken place—is in general so large that domestic firms avoid undertaking the risk involved in seriously upgrading their product and marketing practices. In addition to the uncertainty associated with each dimension along which firms are required to upgrade, a more profound layer of uncertainty is associated with the firms' ignorance over what dimensions are most relevant to their particular case. Furthermore, they are often even unaware of some of the dimensions along which they need to upgrade. In such an uncertain environment, their export efforts are limited to attending a trade fair, contacting a foreign distributor, or advertising their products in a foreign outlet. But such a limited export investment does not lead to a sustained and substantial presence in foreign markets. In fact, this type of export experience often ends shortly after it has started.

The deepest source of uncertainty relates to the need for marketing upgrades. Marketing upgrades require information and knowledge about the intricacies of foreign markets that domestic firms typically lack. They need to understand the preferences of foreign consumers, make positioning and branding decisions, find appropriate distribution channels, understand the needs and business practices of distributors, and (in some cases) mobilize resources for post-sale services. However, they neither have the information about how to satisfy these requirements nor do they know how and where to acquire it. In the domestic market, firms rely upon intuition, experience, frequent contact with consumers and distributors facilitated by geographical proximity, and embeddedness in the local culture. These are powerful tools for marketing domestically, but are ineffective for marketing abroad. In order to export, domestic firms need to develop new and largely unfamiliar marketing practices.

In the case of product upgrades, on the other hand, the tools that firms rely upon to produce domestically are more similar to those needed to produce for the export market. A possible explanation is that the information and knowledge required for product upgrades tends to be more codifiable: it is available in manuals, trade magazines, and it is transmitted in educational institutions to technicians, specialists, and professionals that domestic firms can easily hire if required. Marketing requirements—such as understanding the needs and

this study. Subject to this caveat, we keep this terminology to maintain consistency with the original HR framework.

preferences of foreign consumers or understanding the “way of doing business” in the foreign country—are considerably more difficult to codify.⁷

4.2 The Knowledge Advantage of Pioneers

We find that the pioneer, in all four sectors, has a substantially superior understanding of foreign countries’ culture, idiosyncrasies, and/or way of conducting business. This understanding resolves a large number of uncertainties that exist for other entrepreneurs in the industry, and therefore facilitates the conception and execution of the export business model. Facing fewer hurdles than his peers, the pioneer faces more certain investment prospects for product and marketing upgrade.

The fact that pioneers have such a distinctive knowledge advantage would not be surprising if the advantage were endogenous to a previous decision to become an exporter. However, this is not the case. The knowledge advantage of pioneers is always based on prior experience with foreigners and foreign markets that is unrelated to their subsequent decision to export. In all the cases, we find that pioneers had previous experience socializing in foreign countries. Socialization allows for the creation and sharing of explicit and tacit knowledge—in this case, in areas such as human relations, business practices, and tastes in a foreign country.⁸ Pioneers later found this knowledge critical in their export ventures.

In the Light Ships and Television Programs industries, the pioneers were importers first. The import activity, which involved regular trips abroad and frequent contact with foreign agents, promoted socialization abroad in their respective business communities.

In the case of the Wine industry, the pioneer lived for many years in the United States. First, he studied in New York for four years, and then, years later, spent three years as a visiting professor at the University of California–Berkeley. The latter experience allowed him to witness the transformation of the wine industry in Napa Valley and socialize with the wine community there. Even though he was already a very successful domestic producer at the time of his stay in California, the strategic location of Berkeley was not a factor in his decision to accept the

⁷ Our claim here contrasts with a large body of literature emphasizing the non-codifiable nature of production knowledge. In the industries we study, however, access to production knowledge does not appear to be a relevant bottleneck for export success.

⁸ The creation and sharing of tacit knowledge through socialization is studied by Nonaka (1994) in the context of organizations.

visiting position, which was offered to him by a friend. In fact, the pioneer was barely aware of the transformation that was occurring in Napa Valley at the time.

The pioneer in the Wooden Furniture industry spent three months in the United States as a teenager in a visitor exchange program. Later, he worked selling seeds and fertilizers to farmers for years. In that job, he frequently socialized with Americans who were sent to Argentina to provide sales and marketing training.

In all of the cases, the pioneers' access to explicit and tacit knowledge about how to market abroad and how to deal with foreign businessmen allowed them to focus on the dimensions of upgrade that were the most relevant. Most other domestic producers, lacking this knowledge, were not able to conceive a thoroughly planned export strategy.

4.3 Newcomers versus Incumbents

In none of our cases is the pioneer's advantage based on superior production knowledge. In fact, the pioneer in the Wooden Furniture industry is not even a producer (he is a commercial agent), and the pioneers in the Light Ship and Television Program industries are both newcomers to production after being importers for years. Even for individuals with previous production experience, the challenges of producing goods that satisfy export requirements appear to have been relatively easy to overcome. Their marketing knowledge drastically reduced the uncertainty associated with implementing an export business model and therefore provided them with the incentives to invest in product upgrades. In stark contrast, the production-knowledge advantage of pre-existing producers was not sufficient to encourage them to undertake such upgrades. This is evidence of the intertwined nature of product and marketing upgrades; firms invest in product (and marketing) upgrades only when marketing uncertainty is sufficiently small.

The Wine industry is the only one of our case studies in which one of the largest domestic producers also becomes a pioneer. We consider two possible explanations to account for this fact but cannot determine which of the two, if either, is valid. A first explanation is that factors specific to the wine industry played a role in narrowing the scope of uncertainty that the pioneer faced relative to large producers in other industries who did not pioneer export activity in their sectors. On the one hand, Argentina is endowed with favorable climatic and soil conditions for wine grape production—Argentina has been one of the largest wine producers in the world for decades. On the other hand, Chile underwent a dramatic transformation that spurred

remarkable export growth in this industry prior to Argentina. The Chilean experience provided a visible benchmark for assessing the potential profitability of the export business in a similar country. Both the presence of favorable natural conditions and the successful experience of a proximate neighbor could have substantially reduced the degree of uncertainty that domestic producers faced about whether the implementation of a successful export business model was feasible in Argentina. In that case, it would not be surprising that one of the large domestic producers also becomes an exporting pioneer. While partially appealing, this explanation is unable to account for the fact that the pioneer in this industry implemented an export business model that was quite different from the export model of Chilean wine exporters, as he targeted a substantially higher segment of the market. A second explanation is luck: the inadvertent exposure of one of the industry's largest producers to the transformation of the U.S. wine industry later proved critical in developing an export business model.

4.4 Diffusion: The Role of the Pioneer

In the section on the theoretical framework, we distinguished between general and specific diffusion. The pioneer's implementation of a successful export business model often generates both types of diffusion. First, his export success is usually accompanied by a significant growth in size (for example, in sales and/or number of employees), which is easily observable by other firms and is taken as a signal that a profitable export business model exists. Even though these other firms might not know the details of the export business model, knowing that one exists provides them with incentives to learn the unknown details, for instance by paying careful attention to the pioneer's actions or by hiring a pioneer's employee. Second, pioneers often generate specific diffusion as well; some of their specific actions are observed by followers, who can then imitate.

Even though diffusion can potentially hurt the pioneer, there has not been any evidence in our case studies that the prospects of diffusion deterred a pioneer's investment relative to a benchmark in which diffusion did not occur. Furthermore, when the pioneers recollected their decision process at the time of investing in discovery activity (for example, in developing the export business model) they did not recall having any concerns that diffusion might deplete their profits.

Somewhat surprisingly, the opposite was mostly true: the pioneers themselves were explicit promoters of diffusion. A potential explanation for this counterintuitive behavior is that pioneers might benefit from diffusion to other competitors, in particular in the early stages of their new export activity. First, consumers often identify country of origin as one of the main characteristics of a foreign product, so a pioneer might benefit from the existence of other exporters who can help develop “brand” recognition for the country as a whole. Second, pioneers might benefit from the appearance of other exporters as they increase the demand for specialized infrastructure and specialized (high-quality) intermediate inputs and services. Third, economies of scale in the costs of international transactions appear to be relevant in some industries; pioneers might benefit from the diffusion to producers of similar products that help them diversify the portfolio of products they offer in foreign markets.

4.5 Other Mechanisms of Diffusion

In addition to the pioneer’s actions, there are several other channels of diffusion. In our case studies, diffusion also occurred as a result of a pioneer’s employees opening up their own shop, other firms hiring a pioneer’s employees, and communication among competing firms and between buyers and suppliers. Business associations, government agencies and public–private institutions also play a prominent role in diffusion, which is discussed in more detail in the next section. However, this role is apparent during later stages of the diffusion process; in our case studies, none of these entities played a critical role at the stage of discovery or early diffusion.

4.6 Pattern of Specialization

Discovery is presumably not equally likely to occur in every sector. Pre-existing conditions might also play an important role in determining the set of economic activities among which discovery is more likely to take place. In this regard, an intriguing pattern emerges from the case studies: each sector’s export growth is based on products with an important design component.⁹

In two of the sectors (Light Ships and Wooden Furniture), export products employ design features from the Italian design tradition, which is highly regarded worldwide. The massive flow of Italian immigration to Argentina contributed to a local design capability that persists in the form of a younger generation of designers who maintain close links with Italy. In these two

⁹ The term “design” is understood here in a broad sense. In the Wines case study, the design function is performed by the enologist. In the Television Programs case study, this function is performed by the creator(s) of the format.

industries—and potentially in several others—this capability might provide Argentina with a distinctive advantage for participating in world markets with products that are design intensive.

However, the fact that export success is primarily observed in design-intensive market segments within the case-study sectors might alternatively be explained by relatively high wages in Argentina—due to a large agricultural income—that prevent the country from successfully participating in market segments producing more standardized products, which are typically more dependent on cost competitiveness.

5. Lessons for Public Policy

By identifying the key advantage of pioneers, this study sheds light on the factors that prevent other domestic firms from exporting. Domestic firms typically fail to understand foreign countries' culture, idiosyncrasies, and/or way of conducting business, which limits their ability to design and implement a successful export strategy. The magnitude of the uncertainty they face is so large that it discourages them from making a committed export effort. Their problem is not a lack of technological capability, but rather a lack of international marketing capability. Firms that are able to design a focused marketing strategy solve the production requirements without great difficulty.

Another striking pattern emerging from our findings is that the pioneers' knowledge advantage precedes their decision to become exporters. This finding has strong implications since it suggests that a firm's desirable attributes, such as high productivity or a strong willingness to sell abroad, are not sufficient to export differentiated products to developed countries; firms are also required to possess knowledge that they cannot easily acquire. Hence, a relevant policy question is whether public policy can leverage this knowledge to favor other potential exporters.

Suggesting or designing specific policy instruments to attain this objective is beyond the scope of this study. Such a task requires considerable creativity and specific knowledge of institutional detail. This study primarily seeks to describe the nature of the existing constraints for export growth and provide a framework that allows for a more focused approach to policy design and evaluation. Nevertheless, the results of this work suggest that since the distinctive knowledge of pioneers transcends the specifics of their own industries, public policy should attempt to foster the diffusion of this knowledge not only within those industries but also across

industries. In particular, the pioneers' experience generates lessons that are useful for most producers of differentiated products who attempt to establish a stable presence in developed-country markets. To the extent that this knowledge can be spread throughout the economy, export success should become less dependent on the singular features that characterize the pioneers in our study. Public policy could support environments—such as business conferences, business association meetings, and business-oriented educational institutions—that promote interaction between pioneers and other actual or potential business participants. These environments would facilitate the transmission of explicit knowledge and allow for elements of the pioneers' tacit knowledge to take an explicit form and hence become easier to communicate.

Our finding that early diffusion generally benefits pioneers implies that, in contrast to Hausmann and Rodrik (2003), concerns over the depletion of pioneers' rents are not warranted to an extent that justifies public policies curtailing diffusion. In particular, a policy solution like the patent system, which attempts to induce discovery by restricting diffusion, might be a harmful policy as it might deter rather than induce discovery activity.

While we find that public policy has had almost no role in the early stages of export emergence, it has had a significant role in the later stages of this process. In particular, in the Wine and Wooden Furniture sectors, public institutions, business associations, and public-private agencies have played an important role in diffusing production knowledge. Few entities, however, attempt to diffuse marketing knowledge, which is the type of knowledge most clearly lacking. Even among the latter entities, it is very hard to assess the effectiveness of their intervention without substantial evaluations of their specific programs.

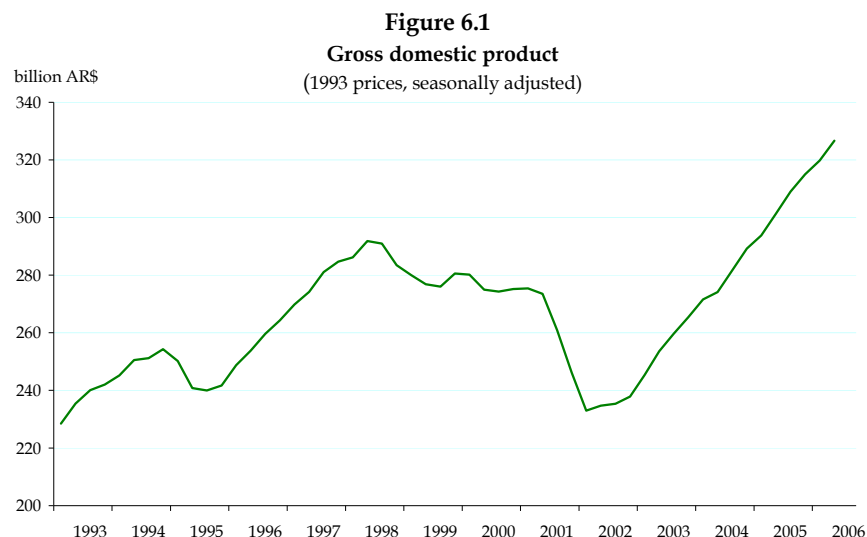
Finally, the findings of this study also inform the debate regarding what sectors should be targeted for export promotion. Export-promotion policies are usually regarded as being more effective when applied to sectors with a comparative advantage (however that may be defined). Despite common wisdom that Argentina's comparative advantage lies in sectors intensively based on natural resources, the findings presented here suggest that the country has the potential to become a successful exporter of differentiated products (even if those products are not based on natural resources), as long as the information and knowledge constraints associated with initiating an export venture are substantially mitigated. Furthermore, upgrading exports of resource-based products (such as climbing up the value chain) also requires mitigating similar constraints—to the extent that upgrading involves product differentiation—as we observe in the

wine industry. Therefore, the set of desirable policies for export promotion of differentiated products might be similar regardless of whether products are based on natural resources or not.

6. Evolution of Argentina's Economy

Before presenting the four case studies, this section provides a summary description of the evolution of Argentina's economy in the past few decades. During that time, government policies and the external conditions faced by exporters in Argentina have varied widely. After decades of protectionism, Argentina initiated a consistent process of unilateral trade liberalization in the late 1980s, which was mostly completed by the early 1990s.¹⁰ The nominal average tariff decreased from 37 percent in 1985 to 12 percent in 1991, while most non-tariff barriers were removed. Argentina was also a founding member of Mercosur, which was created in 1991 and included a transition period that ended in 1995 with the formation of a customs union. In addition to substantial unilateral and regional trade liberalization, other structural transformations took place simultaneously, including the removal of restrictions to FDI, the liberalization of the capital account, and a drastic privatization and deregulation program. These reforms were accompanied by substantial economic growth until the onset of a recession in the third quarter of 1998, which turned into a prolonged depression and led to the financial, currency, and debt crisis of 2001. GDP growth since reaching the trough of the crisis has been consistently strong. Figure 6.1 shows the path of Argentina's GDP since 1993, at constant prices.

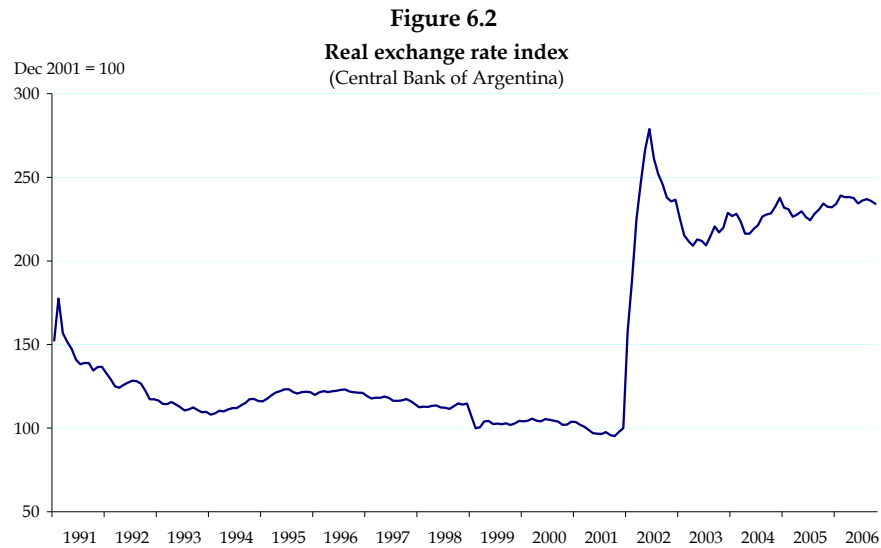
¹⁰ A drastic program of trade liberalization was implemented in the late 1970s, but lasted only a few years.



Source: INDEC (National Institute of Statistics and Census of Argentina).

During the past few decades, Argentina's export sector has undergone large real exchange rate fluctuations. Figure 6.2 displays the path of a real exchange rate index.¹¹ The chart displays a sudden appreciation following the launch of the convertibility regime, as moderate rates of inflation persisted for several months following the peso's peg to the U.S. dollar. The exchange rate remained relatively unchanged, appreciating slightly from 1995 to 1998. It appreciated suddenly in 1999 due to Brazil's devaluation of the real, and remained at that level up to the crisis of 2001–2002. The crisis led to a sudden and large devaluation, and an overshooting period that lasted through 2002. The real exchange rate has since depreciated gradually and is now roughly at about twice its value during the previous decade.

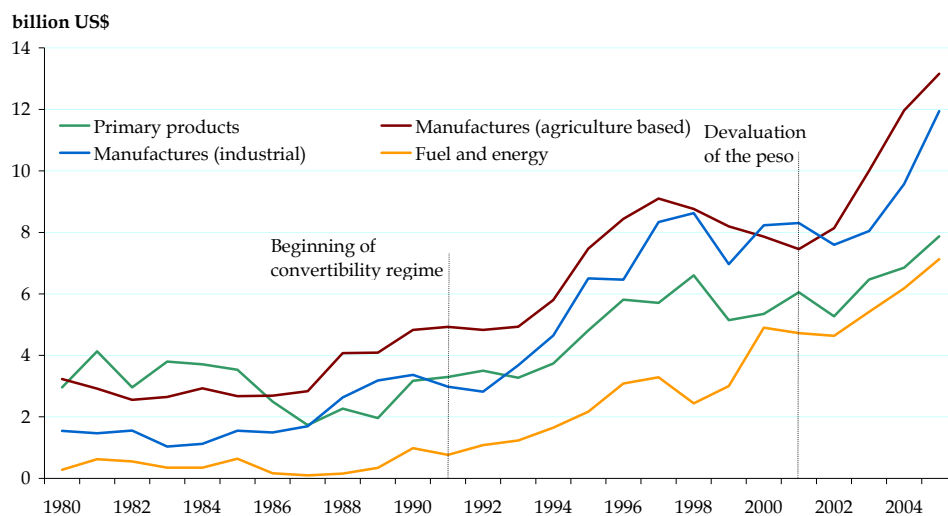
¹¹ Calculated by the Central Bank of Argentina and based on exchange rates and prices in the United States, in countries using the euro, and in Brazil.



Source: Central Bank of Argentina.

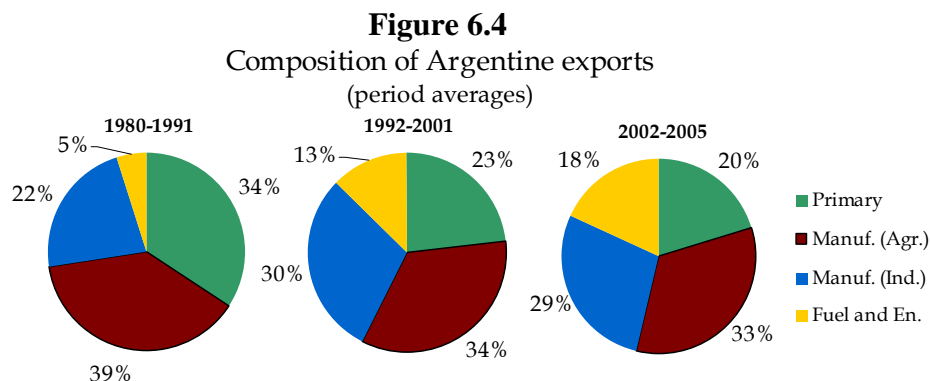
The combined effect of reforms and the macroeconomic environment has had a significant impact on the evolution of Argentina's exports. Export growth, which averaged 2.97 percent annually in the period 1970–1988 (in constant U.S. dollars), averaged 5.89 percent in the period 1988–2005. Figure 6.3 displays Argentina's total exports since 1980, broken down into four major components. Exports in all components were relatively unchanged during the 1980s, although there was some growth in exports of manufactures (both industrial and agriculture based) toward the end of the decade. Export growth in all components picked up during the early 1990s, but stalled again during the late 1990s in all sectors except fuel and energy. Growth continued after the devaluation of the peso in January 2002, although there was a temporary decline in 2002.

Figure 6.3
Argentine exports (1980-2005)



Source: INDEC (National Institute of Statistics and Census of Argentina).

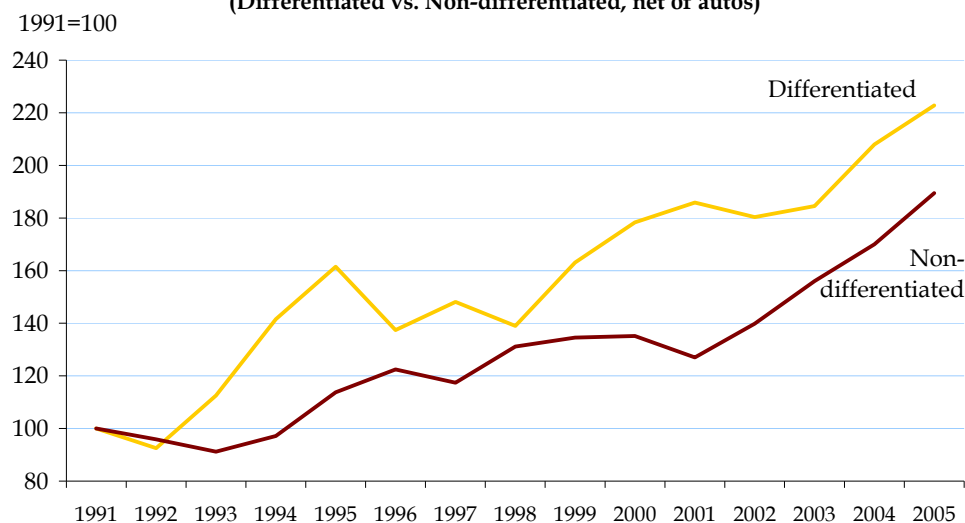
Even though all major export categories have grown substantially in the past 25 years, different rates of growth have led to a substantial change in Argentina's export mix (see Figure 6.4). Primary products and agriculture-based manufactures, which jointly dominated exports from 1980 to 1991 (72.5 percent of the total), declined to a 53.5 percent share of exports in the 2002–2005 period. Most of this decline was due to primary products, whose share declined from 34.2 percent to 20.3 percent between the two periods. Exports of fuel and energy picked up most of the increase (from 5.0 percent to 17.9 percent of exports), followed by industrial manufactures, whose share of the total increased from 22.4 percent in the 1980–1991 period to 30.0 percent in the 1992–2001 period and 28.5 percent in the 2002–2005 period. In addition to the rise in fuel and energy exports, the most striking change in Argentina's export mix has been industrial manufactures' displacement of primary products as the second-largest component (behind agriculture-based manufactures).



Source: INDEC (National Institute of Statistics and Census of Argentina).

The largest sector propelling growth in industrial manufactures has been the auto sector. Exports of autos and parts grew substantially during the 1990s (almost nine-fold over the decade) following Mercosur integration, which entailed an agreement for compensated auto trade between Argentina and Brazil. Auto exports have again picked up since the devaluation of the peso, as auto terminals have started to ship outside Mercosur. However, industrial product aggregates and the large volume of auto exports mask a more broad-based growth in exports of relatively sophisticated products to OECD countries. Figure 6.5 shows Argentine exports to OECD countries, net of autos, and classified into differentiated and non-differentiated products. This graph is similar to Figure 2.1, except that automobile exports are not included. In addition, differentiated exports to OECD countries are compared here with non-differentiated product exports to those countries.

Figure 6.5
Argentine exports to OECD nations
 (Differentiated vs. Non-differentiated, net of autos)



Source: Authors' calculations based on UN-COMTRADE and Rauch (1999).

Growth in exports of differentiated products to OECD countries has outstripped that of non-differentiated products during the past decade and a half. Whereas exports of the latter products (as well as all non-fuel export components, see Figure 6.3) stalled during the real appreciation of the peso in late 1990s, exports of differentiated products to OECD markets grew substantially from 1999 through 2001. While exports of non-differentiated goods to OECD countries picked up immediately following the devaluation of Argentina's peso, exports of differentiated products were slower to react.

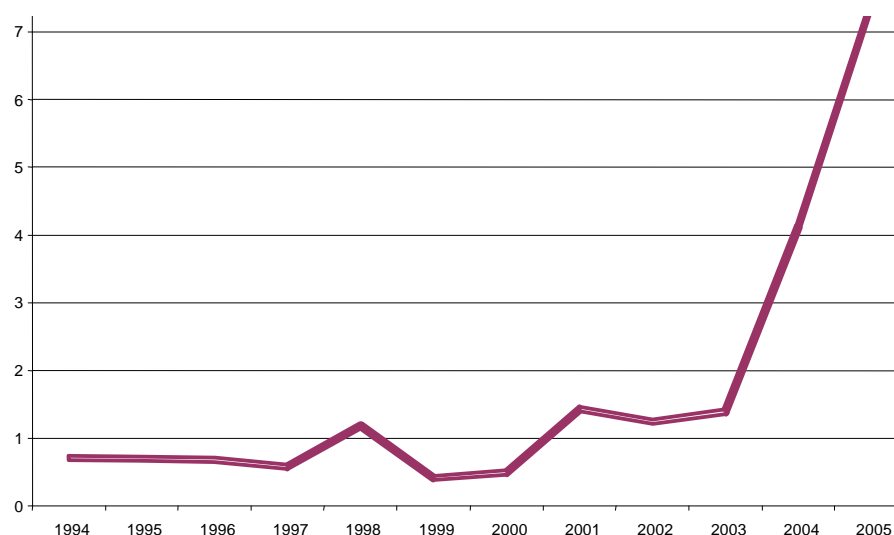
7. Case Studies of Emerging Export Activity in Four Argentine Sectors

7.1 Light Ships (Case I)

The development of Argentina's light-ship building industry started at the beginning of the twentieth century, with the arrival of British immigrants with an interest in nautical sports. The inflow of these immigrants—and the clubs and sports activities they established—created a consistent domestic demand for light ships, leading to the appearance of local producers. A domestic light-ship building industry has therefore existed for decades in Argentina. Though there were early attempts to export, these efforts were isolated and lacked continuity compared to the trend observed in the past decade.

This case study specifically focuses on motorboats, since they account for most of the growth in exports of light ships. Nevertheless, export outcomes for the sailboat industry (the other main component of the light-ship building industry) are briefly reviewed at the end of this section.

Figure I.1. Light-Ship Exports (in US\$)



Source: Argentine Boating Industry Chamber, Cámara de Constructores de Embarcaciones Livianas.

The extent of export growth in the past 10 years can be quantified both in terms of volumes and export destinations.¹² In terms of volume, exports declined from US\$2.6 million in 1991 to a low of US\$252 thousand in 2000, and have since grown almost 40-fold to US\$8.0 million in 2005. The path of total exports is shown in Figure I.1.¹³ The most outstanding

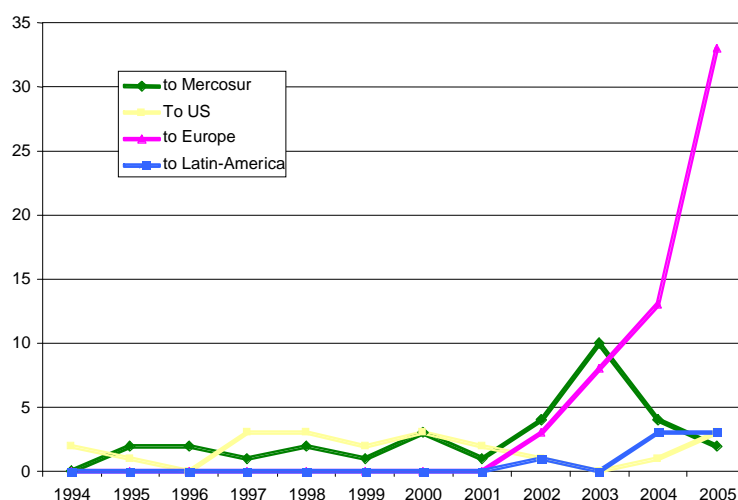
¹² Light ships are defined for statistical purposes as those weighing up to 15 tons within the 4-digit category HS 8903 (yachts and other vessels for pleasure, etc.; row boats, etc.). The value for the weight threshold is largely arbitrary, and the decision to establish it in terms of weight is motivated by data availability since the basic measure of ship size in the industry is length rather than weight. The overall pattern of export growth (as described below) is robust to small changes in the threshold, but not if the weight restriction is entirely lifted. This is because the position also includes large luxury yachts, and there is one firm in Argentina that has been conducting sales of these vessels (which have very high unit values) intermittently throughout the 1990s. Ships in this weight class have a high degree of imported components, including both ship parts and a customized interior design. The weight restriction is intended to exclude this type of ship.

¹³ Although the figure clearly shows explosive export growth, the official customs statistics presented here are not as informative as they are for other sectors because industry sources claim that under-invoicing is widespread. This claim can be confirmed by checking U.S. websites that post advertisements for used Argentine boats: the prices quoted on some used boats are higher than the export price recorded by customs when the boat was new. Consequently, official statistics do not accurately capture the size of the sector's overall exports.

characteristic observed here is the sustained high growth rate since 2003: almost 200 percent in 2004 and 80 percent in 2005.

Figure I.2 shows exports broken down by destination. Prior to 2002, approximately 55 percent of motorboat exports went to the United States and the remaining 45 percent to Mercosur. Since then, exports to Europe have surpassed all other destinations, reaching 60 percent of all exports in 2005, and driving most of the growth over the period. On the other hand, exports to the United States declined to an average 6 percent of units sold. As described below, Argentine firms directed their initial export attempts toward the U.S. market and later reoriented their efforts to specific markets within Europe.

Figure I.2. Motorboats Exports by Destination (in units)

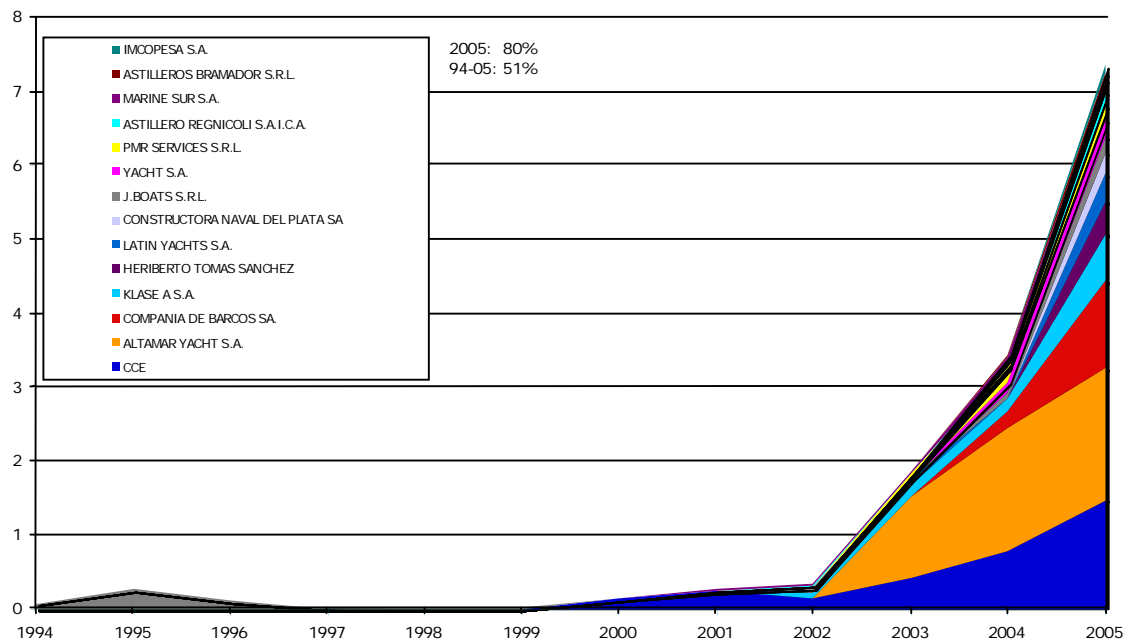


Source: Argentine Boating Industry Chamber, Cámara de Constructores de Embarcaciones Livianas.

7.1.1 Main Exporters in Argentina

Figure I.3 breaks down export figures by firm. Compañía Constructora de Embarcaciones (CCE) was the first firm to achieve substantial motorboat exports after 2000. Other producers have since followed CCE, and official statistics put current exports at close to US\$10 million.

Figure I.3. Light-Ship Exports by Firm (in US\$)



Source: Argentine Boating Industry Chamber, Cámara de Constructores de Embarcaciones Livianas.

CCE was the first company to achieve non-negligible and consistent motorboat exports. Other firms have followed CCE, so export shares have become increasingly diversified.

Table I.1: Exports by Firm from 2001 to 2005

Year	Number of exporters	Value of exports by top eight firms (%)
2001	25	95.3
2002	52	83.6
2003	47	86.0
2004	46	80.3
2005	52	73.2

Source: CEP (2005).

As of 2005, CCE was the main exporter in terms of units sold (19 percent), but there are other relevant players in the industry, including Altamar Yacht (13 percent) and Klase A (11

percent). These two firms have sustained consistent export growth since their entry in 2003, as shown in Figure I.3. Other (so far) small-scale exporters have appeared in the past two years. Table I.1 shows that the number of exporting firms increased after 2001, while the share of exports by top exporters decreased consistently over the period. In 2001, the eight largest exporters accounted for 95 percent of total exports, but their share decreased to 73 percent in 2005.

Europe is currently the largest export destination for Argentine producers and—as explained below—is the market on which they focus most export of their efforts. In 2005, the largest importers of light boats from Argentina were Spain (33.1 percent), Italy (21.3 percent), and the United States (10.6 percent), with remaining exports going to 23 other destinations.

The light-ship building industry includes sailboats as well as motorboats, and these have also undergone sustained export growth. Of total light-ship exports in 2005, 66.0 percent were motorboats (HS 890392), 23.3 percent were sailboats (HS 890391), and 10.8 percent were other small boats (HS 890310 and 890399). Motorboats and sailboats cannot be grouped together for the purpose of this study because there are important differences in production processes, commercialization abroad, and the characteristics of the final product. Both industries do share some common ground, however, in terms of raw materials, suppliers, and commercialization for the domestic market, and there are manufacturers that produce both products.

Sailboat exports have followed a similar path to the one described for motorboats. Export volumes grew abruptly after 2002, with Europe as the main export destination. As with motorboats, the share of exports to the United States also declined after 2002, despite being the main destination in the earlier period. Europe was also a main market for Argentine sailboats in 2005 (receiving 65 percent of units), followed by Latin America excluding Mercosur (28 percent), Mercosur (6 percent), and the United States (1 percent). The firm Río Tecna S.R.L. was the first to achieve sustained sailboat exports, followed and eventually surpassed by Compañía de Barcos S.A.

7.1.2 International Trade

According to CEP (2005), the largest exporters of light ships in 2004 were Italy (19 percent), the United States (13 percent), France (13 percent), Germany (11 percent), Spain (8 percent), and the United Kingdom (8 percent).

In order to reduce costs (especially labor costs), handcrafted production centered on individual artisan workers with broad sets of shipbuilding skills is being replaced on a global scale by serial production and industrial techniques. Additionally, another trend in the light-ship building industry is the consolidation of multiple shipyards into large business groups in order to reduce costs by sharing design and engineering expenditures. In Europe, the most important of these groups are Ferretti, Azymuth, and Rodríguez, which account for more than 10 percent of the total sales, and more than one quarter of the total production in Europe comes from its 10 largest firms.

The international market for light boats is divided mainly between Europe (21 percent) and the United States (72 percent). European customers buy equivalent proportions of motorboats (53 percent) and sailboats (47 percent), while the United States demands more motorboats (69 percent) than sailboats (31 percent). The European market for motorboats is currently growing at a higher rate than that for sailboats.

Across the world, the final consumers that demand these products employ them for recreational and sports purposes. The greater demand for motorboats is linked to a preference for more comfortable and better-equipped boats. Additionally, motorboats are perceived as being easier to drive and therefore have a broader appeal. Some consumers base their preferences for these boats on associations with concepts such as freedom and status.

7.1.3 Value Chain of the Light-Ship Industry

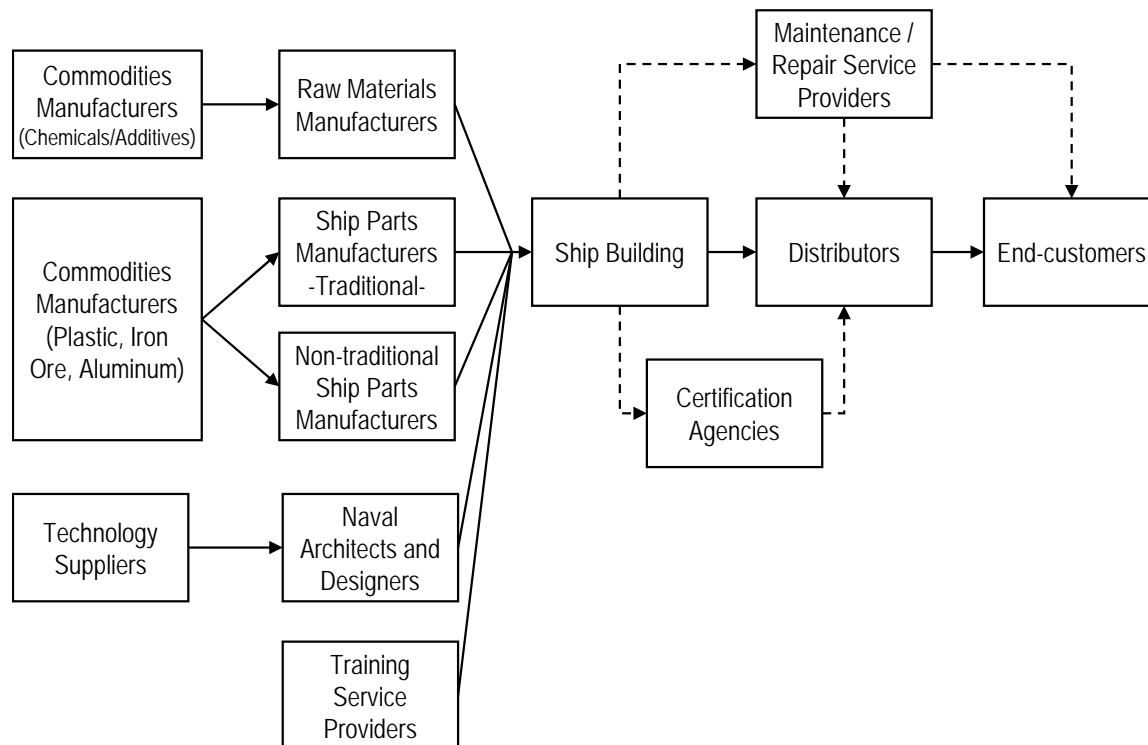
The light-ship building industry is part of the metal-mechanic sector and is classified as heavy manufacturing industry. The main activities carried out by firms in the sector are the construction, repair, and refitting of ships.

The production process involves the following stages: design; reception and processing of materials, parts, equipment, and facilities; construction of the structure of the boat through the assembling of parts; and the assembly of final components. This task is carried out in shipyards and workshops. Shipyards focus on construction but also repair and refit boats, whereas workshops are dedicated almost exclusively to the last two tasks. According to the Federación de la Industria Naval Argentina (FINA), there are approximately 100 shipyards and workshops currently in operation in Argentina, and 60 of these belong to the light-ship building sector.

Suppliers of boat parts and components are called *navalpartistas*. These firms may belong to very different industrial sectors, as their products can range from engines and electrical equipment to televisions and refrigerators. The light-ship building activity also requires trained workers in a number of handicraft skills. The level of craftsmanship involved usually increases with the scale of the boat, since larger boats usually undergo further customization for individual clients.

This section describes the value chain of the light-ship building industry. Figure I.4 shows the structure of the value chain from the final customers to the suppliers of parts and raw materials.

Figure I.4. Value Chain of the Light Ship Industry



Source: Authors' compilation based on industry surveys.

Commodities manufacturers. Not all items grouped as commodities here are commodities in a strict sense. The grouping refers to all inputs whose use has no discernible impact on the final customer's purchasing decision. These products may be important to the quality of the end product, but the consumer is rarely capable of verifying the products used or the consequences of

their use. The consumer must trust the builder to employ all components and raw materials in a satisfactory way.

Raw material manufacturers. Raw material manufacturers include suppliers of, for example, fibers, resins, paints, and aluminum. Most of these products are purchased in bulk and, as with commodities, do not influence the purchasing decisions of the final customer. Firms that manufacture commodities and raw materials are usually larger than light-ship builders. Because of this, these manufacturers are usually unwilling to tailor their products to the specific needs of the shipbuilder. For instance, the aluminum supplier is one of the largest companies in Argentina, and shipbuilders represent a minuscule share of its sales. Shipbuilders have been unable to negotiate with this supplier to provide a type of aluminum specific to shipbuilding.

Ship parts manufacturers. Ship parts manufacturers can be classified in two distinct groups: traditional and nontraditional suppliers. Traditional suppliers produce parts that are specific to shipbuilding, such as propellers, axles, and rigging. These suppliers have capabilities that are specific to shipbuilding, such as manufacturing technology, design expertise, or knowledge of working with materials that are specific to the industry. Nontraditional suppliers provide inputs that are usually supplied to other industries, for instance windshields, aluminum parts, and CAD-CAM (computer-aided design) services.

Technology suppliers. Some parts of a ship require very specific design and testing. For example, the design of the boat's propulsion system requires an evaluation of hydrodynamic properties. Due to the high degree of knowledge and specific machinery that is required for the task, this type of design is limited to just a few suppliers worldwide. These suppliers patent their designs and sell shipbuilders the right to use them. Designs developed by technology suppliers are adapted to a specific boat model by naval architects and designers.

Naval architects and designers. Ship design has become increasingly challenging as final customers have become more sophisticated. Design concepts have been imported from other fields or products. For example, car manufacturers have designed speed gauges to be big and expressive to enhance the perception of speed. This design trend rapidly carries over to shipbuilding because the final customer expects new design features to be present in ships as well. Design is influenced by customer tastes, which are affected by trends and cultural factors.

Ship design was traditionally carried out by a naval *engineer*. However, design has become central to shipbuilding in recent years and the ship's industrial design, while still important, is now second to the *architectural design* of the boat. Increasing emphasis is currently placed on the boat's living space—the deck and interiors. The name of professional ship designers has changed from “naval engineers” to “naval architects” or “naval designers.”

Training service providers. Training service providers include universities, consultants, nonprofit organizations, and international agencies that jointly sponsor and deliver training courses to shipbuilders and their key suppliers.

Shipbuilders. The role of the shipbuilder is similar to that of a car manufacturer. The shipbuilder integrates all suppliers to execute the production of a designed product. The shipbuilder buys raw materials to manufacture some parts of the ships, such as the hull. The builder also buys undifferentiated parts and subcomponents, the nature of which will not be apparent to the final customer. The final customer does not need to know about these products because it is the builder's role to select the appropriate suppliers. The builder also integrates branded products such as the engine, mechanical components, and ship instruments. Other branded products include comfort appliances such as a refrigerator or a microwave oven. Lastly, the builder integrates branded or unbranded comfort items such as sofa beds, tables, toilets, and seats.

Distributors. Distributors play a central role in gaining successful access to each market, and require precise knowledge of the products that they seek to sell. Distributors may have access to a sample boat to show to prospective customers, but this is not the case in all markets due to the small scale of Argentine exporting firms. In addition to detailed knowledge of the boats themselves, the distributor must be able to work with clients to specify the customization of the boat.

Certification agencies. Certification agencies set the standards used by shipbuilding manufacturers. Certification agencies assess and certify that the materials, technology, products, facilities, and manufacturing processes are in accordance to national and international laws. Some countries or regions require certification to allow boat sales. In others, certification acts as a differentiating element to assure distributors and the final customer about the quality of the product. The certification agency most frequently used worldwide is Italy's RINA.

Maintenance/repair service providers. Maintenance and repair service providers play a critical role in the success of the shipbuilding industry. Ships need to be serviced on a regular basis (such as for tune-ups) and on an as-needed basis (for example, to repair breakdowns or damage). Ensuring access to maintenance and repair service providers is a key factor for competing in foreign markets. In a domestic market, most of the suppliers to the shipbuilder are local; thus, there is a well-established network of parts and service providers ensuring that the final customer has access to the necessary services. In the case of foreign markets, shipbuilders need to plan and provide for the delivery of these services. To successfully leverage the existing network of service providers in each target market, shipbuilders have to provide detailed manuals and support material.

7.1.4 Brief History of the Light-Ship Industry

The light-ship building industry in Argentina has a long history beginning in the early twentieth century, when Argentine and European immigrant artisans joined in establishing the first shipyards to build wooden boats near the River Plate. According CEP (2005), 90 percent of light-ship building capacity is currently located in a single location—an area comprised by the Tigre and San Fernando counties in the northeastern part of the province of Buenos Aires and on the delta of the Paraná River. This was an area previously populated by British immigrants with an interest in nautical sports and is still a hub for a number of marine sports, including yachting.

Approximately 200 companies are located in the Tigre-San Fernando area, where light ships are required for transport and communication between the islands of the delta. Growth of nautical sports (yachting, water skiing, and windsurfing) in the Luján River, the delta channels, and the River Plate encouraged the creation of new shipyards and associated industries.

New materials were introduced to light-ship manufacturing in the 1950s, including fiberglass and the use of polyester in sails. These materials allow for lighter boats, resulting in higher speeds and longer product life. The industry established a chamber in 1969, the *Cámara de Constructores de Embarcaciones Livianas*, with the aim of promoting the shipbuilding activity. A further construction material development was the introduction of fiberglass reinforced plastic (FRP) in the 1970s, which potentially allows for the implementation of serial production techniques. The industry was characterized by small- and medium-sized enterprises

(SMEs), most of which were family businesses that mostly focused on production for domestic water sports. Average annual production reached 7,800 units in the early 1980s.

Argentina's convertibility regime in the 1990s was beneficial to imports of both final products and technology. Until 1993 there had been slight increases in volumes produced, but nothing substantially different from levels in the late 1980s. Production increased significantly from 1994 through 1999 and subsequently declined through the later stages of economic recession through the end of the convertibility regime in 2001.

The devaluation and subsequent depreciation of the local currency following the end of convertibility caused a sudden improvement in relative prices for the light-ship building industry, making Argentine boats more competitive on international markets. Although the international price for several cost components decreased (such as labor costs, indirect costs, and some local materials), imported and tradable materials represent an important proportion of total production costs. In particular, motor engines account for the largest share of imported input costs.

One of the main obstacles to light-ship exporters is the lack of financial resources with which to promote export growth. According to CEP (2005), firms obtain financing from their own resources (78.6 percent of firms) and from anticipated payment from customers (43 percent of firms).

Most companies in this industry are SMEs, with an average of 20 employees per company. Shipyards tend to specialize in the production of a specific type of boat: motorboats, sailboats, or cruisers. Depending on the size of the boats, these firms can work by order (in the case of larger ships) or can produce short series.¹⁴

7.1.5 Domestic Business Model versus Export Business Model

Producers operating under the domestic business model regard the light-ship building industry as an artisan activity, and are part of a community with a lifestyle centered on the river. Both traditional builders and their customers are yacht and boating enthusiasts, and builders view their business as providing nonstandardized products that are customized to the specific needs of the members of their community. Firms are almost entirely dependent on domestic customer demand and local financing conditions, and export ventures are rare and limited to utilizing surplus

¹⁴ In the light-ship building industry, serial production refers to the fact that production is carried out on the base of standardized models or matrices, resulting in very similar finished products, with slight differences in finishing details.

production capacity when domestic demand is low. Most of these exports are also limited to the neighboring markets of Uruguay and Brazil. Skills in business management, finance, commercialization, and marketing are underdeveloped.

The production and marketing decisions of firms operating under the export business model disregard the features of the domestic market, so the production capacity of these shipyards surpasses the requirements of this market both in terms of quantity and quality. New products are designed to satisfy specific niche demands in foreign markets. Unlike firms operating under the domestic business model, firms using the export business model separate activities into business units and employ distinct managers for the areas of production and marketing. Some managers and technical staff have been employed abroad, with leading international firms in the industry.

Product upgrade. Shipyards using the domestic business model are managed by artisans and craft specialists, such as carpenters and mechanics, who have a long tradition of wooden shipbuilding. They do not take full advantage of new material technologies (such as FRP for the hull and polyester for sails) that allow for product innovation and the implementation of serial production techniques. Firms operating under this model produce low quantities (due to the small scale of the domestic market but also because most firms seek to supply a broad portfolio of products) and hence fail to achieve economies of scale that justify the process innovation allowed by these new materials.

Companies operating under the export business model frequently introduce improvements in production processes, quality, and design, which in turn require changes in the organizational structure of the firm. Production is standardized and documented (ships are accompanied by detailed technical information) to enable technical support abroad. This allows minor servicing to be carried out by brokers and representatives in foreign markets. Standardization also enables the exporter to send technicians overseas to the destination market, since it potentially limits the range of problems that customers may find with the product and facilitates dealing with these problems without returning the ship to a shipyard.

Domestic market producers build ships to fulfill local customer needs. A singular trait of yachting around Buenos Aires is that the sport can be practiced over the expanse of the River Plate, the widest fresh water estuary in the world. Ships are therefore designed for fresh water and are not required to be resistant to sea corrosion. Domestic business model producers offer the

same product abroad that they produce for the domestic market. But in the Europe and other world markets, light ships are typically used in salt water and are required to be resistant to sea corrosion.

Shipbuilders with foreign market orientation have developed a derogatory term—“*cholo engineering*”—for production methods used by handicraft shipbuilders. They claim that handicraft shipbuilders employ second-rate engineering practices to build ships in a fake-modern style, using new materials such as FRP without updating the old techniques used for wooden boats to realize the materials’ potential.

Export business model firms employ professional managers specialized in production or marketing, who are delegated major functions within the firm. The owner is usually the only chief executive in firms operating under the domestic business model, although family members may focus on managing specific tasks. This distinction does not just follow from scale, as several firms under the domestic business model are larger than export business model firms.

The flow of information between the production and marketing divisions is crucial for exporting firms, since products are developed for specific market niches and are customized—within the constraints allowed by each model—for individual clients. The product development divisions in exporting firms use market-survey information regarding the demand for specific product attributes in developed markets, so upgrades are dependent on the product marketed.

The upgrade of production processes benefits from changes in global patterns of technology adoption. Shipyard managers access publicly available technical information and attempt to implement innovations for both process improvement and product quality upgrade. The adoption of already available technology enables upgrades to the quality and standardization of products. As a commercial manager said, “*This is an industry that has no secrets at all. Everything (you need to know to build a boat) is published. There are no technical or intellectual rights, either.*”

Although access to these technologies may be public, it is not necessarily available to all producers in Argentina’s light-ship building industry; producers need to find the right information and they need to be able to read technical material in English. As the export business model is deployed, the use of production documentation and blueprints becomes extended, and explicit and codified knowledge replaces tacit knowledge.

The design and production of the product under the export business model is substantially different from that under the domestic business model. This is the case, for instance, with moldings techniques used in production. Firms operating under the domestic business model make moldings by hand and employ substantial labor to file fitted parts, since matrices for boat parts follow wood-boat practices and lack precision.

Under the export business model, motorboats are designed precisely. Whole arrays of new matrices are constructed from scratch, and are engineered to produce high-quality parts with extremely detailed corners and junctions. Although in no case do local firms reach a scale to fully implement serial production (as with the Italian light-ship building industry), export business model firms do have the scale to integrate computer-aided design (CAD) technology into the production process.

A key aspect of product quality is style. When new exporters decide to target their products to foreign markets, they depend on their design capabilities. For example, producers in Argentina realized that they had an advantage as followers of the Italian design tradition, which is highly valued across the European market but not everywhere in the U.S. market. Exporters employ these design capabilities and adopt product design practices to emulate European industry leaders such as Azymuth and Ferretti. They employ in-house, world-class designers (mostly Argentine professional designers with extensive training in Italy) and involve them in the production process. More importantly, export business model firms identify the nuances in the style requirements of different foreign markets and are aware of the need to make the appropriate design style choices for each market.

The organization of export business model firms has also involved adaptation upstream in the value chain, to resolve issues in the supply of special parts. Firms in the industry were exposed to products from world-class suppliers during the 1990s. Export business model firms have since applied a strategy of developing a network of distributors outside ship part manufacturers for the traditional shipbuilding community. Shipbuilders share tacit knowledge with their suppliers and work collaboratively in the design stage of their parts.

Marketing upgrade. Commercialization and marketing activities are underdeveloped in the shipyards operating under the domestic business model. These managers lack specific skills in business administration or marketing. According to a leading designer, “*Although (domestic-market producers) know how to build ships, they do not have a clue about how to manage the*

shipyard as a company.” Upgrading to the export business model involves a substantial change in business administration and marketing capabilities.

The standard commercial practice for domestic producers is to rely on customers to finance the manufacturing of their products. The sales function is usually delegated to third parties such as dealers or brokers, under annual representation contracts. The marketing of these products domestically is based on brand recognition (often the last name of the shipyard owner), which is obtained from a long presence in the market and word-of-mouth transmission. The fact that producers are members of the local nautical sports community plays a role in this type of transmission. Exports are sporadic and targeted at neighboring markets, mostly when domestic demand is low. Firms employing the domestic business model do not participate extensively in international trade fairs, and their involvement is limited to attempting to sell their existing product lines.

Managers under the export business model require substantial marketing knowledge and experience, and these shipyards generally internalize the marketing function instead of delegating entirely to brokers. Exporters market their products to final consumers by producing high-quality marketing materials and websites, advertising in the world’s main boating magazines, and establishing permanent commercial representations in key foreign markets.

Each exporting firm develops a specific marketing strategy regarding the appropriate choices for target market size and product categories. Firms operating under the export business model make marketing decisions regarding product development by matching company capacities and skills with the competitive environment they face on international markets. Exporters have to find opportunities in foreign markets in terms of pricing and positioning that match company capabilities in terms of scale and style; they have to discover niches in underserved market segments that can be supplied by firms that are relatively small by international standards. To this end, exporting firms must have detailed knowledge of products already supplied in foreign markets.

As a result of this targeted marketing, exporters focus on a particular segment: for instance, certain motorboat categories in relatively small markets. Limiting the number of products helps these firms standardize production and assure quality, and facilitates the expected scaling up of demand. Since products in this segment are to some extent adapted to customer requirements, limiting the range of the product line allows producers to keep projects

manageable under design and production constraints.¹⁵ Shipyards that started exporting to the United States found that the market was too large and required greater variation in customer adaptation than they could adequately serve at the time.

In contrast to this strategy of presenting a limited portfolio of export products, firms oriented at the domestic market offer a broad range of products, as they seek to cover all of the domestic market's requirements.

The selection of a specific target market entails the positioning and pricing of the product in terms of competing alternatives. Argentine exporters avoid the premium segment and specifically seek to compete by offering the same quality as second-tier brands, while selling at prices comparable to brands in the third or fourth tiers. This constitutes the main competitive advantage of boats offered by Argentine shipyards.

Downstream, the export business model requires building an international commercial network. Reaching foreign markets requires exporters to understand the requirements of foreign dealers. Consequently, exporters consistently participate in international boat shows (such as those in Genoa, Venice, Barcelona, and Valencia) and devote substantial efforts to developing qualified networks of distributors for their products. Involvement in foreign trade fairs also allows exporters to make direct sales to customers.

A key promotional activity undertaken by exporters is brand development. Light-ship exporters undertake substantial marketing efforts toward controlling and making use of country-of-origin bias. Country of origin has been identified in the literature as an important cue that might be used by global marketers to influence consumers' valuation of a given brand. Based on consumer surveys and laboratory experiments, researchers have identified country of origin (COO) as a factor that affects the cognitive, affective, and normative dimensions of customer behavior. COO is a cue for product quality, and has symbolic and emotional value to customers since there are social and personal norms related to product origin (see Verlegh and Steenkamp, 1999, and Agrawal and Kamakura, 1999).

In the early stages, Argentina had no recognition as a producer of light ships. Domestic model shipyards did not concern themselves with the country-of-origin issue, as almost all their business is local. Consumers' country-of-origin bias and perceived quality are specifically

¹⁵ The sailboat export business has employed a similar strategy, focusing on boats for competition and highly customized boats. Exporters in this industry consider that this focus helps them avoid competition from larger firms on the international market.

important in the light-ship industry because potential resale value is a key attribute considered by buyers. One of the challenges that the industry faced was that the resale value of Argentine boats was significantly lower than for boats with name-brand recognition. Although potential clients appreciate that Argentine boats cost roughly 20 percent less than equivalent products from major international competitors, many are reluctant to buy Argentine boats due to their lower resale value. To solve this problem, the marketing strategy under the export business model seeks to improve the image of Argentine boats. Marketing campaigns are targeted accordingly, and are succeeding in obtaining the specialized press in target markets to recognize Argentine origin as an added value. Argentine boats are also attaining a level of international recognition from their increasing presence in foreign markets, from the prestige acquired by specific designers, and from the performance of Argentine nautical sportsmen and women at international competitions.

The export business model also seeks to build brand recognition in foreign markets through co-branding strategies, using quality certification—certifications from the European Economic Community and the Registro Italiano Navale are currently standard for Argentina's export boats. Upgrading marketing practices also entails providing quality-assurance services that were new to industry in Argentina. Under the domestic model, technical-support services are an extension of workshop activity and do not meet delivery, quality, or satisfaction-assurance standards, and the products do not obtain international quality certification.

7.1.6 Pioneer

One of the most important shipbuilders is Luis López Blanco. His company, Compañía Constructora de Embarcaciones (CCE), has led the industry in exporting light ships. A follower company, Altamar, has become the largest exporter in term of value since 2003, but CCE remains the leader in terms of units sold and has served as an example of a well-executed export model for Altamar and subsequent followers.

López Blanco started his career by working as an accountant and business administrator for shipyards and other firms in the nautical industry during the late 1970s. He worked as an employee for a shipyard until the mid-1990s, when he started CCE. CCE represented Ferreti, a premium Italian brand of motorboats, and Cummings, a U.S. motor engine license, as well as domestic brands. His main business was the commercialization of new and used boats.

López Blanco considered the domestic production model of shipbuilding to be flawed, and thus, he sought to become involved in production. By his account, domestic producers are proud of using handicraft techniques in shipbuilding. He regarded pride in the craft as a hindrance to developing a high-quality, exportable product. As an importer and distributor of leading foreign brands, he was acquainted with the product features and some of the marketing practices of the firms for which he acted as a representative. He decided to start a production venture in 2000, after identifying a relatively unattended segment in the domestic market. A particular segment of boats (with a length of 10 to 11 meters and double mast) was being produced by only one other shipbuilder in Argentina, so he created a product to compete in that segment of the domestic market.

Although López Blanco was experienced as a businessman in the industry, he was clearly a newcomer to the production side of the light-ship business. Instead of applying the standard building practices from the domestic business model, he employed state-of-the-art molding techniques that required higher engineering and design inputs, and increased the standardization of production processes. For this purpose, he employed workers with specific skills that were not widely used in the industry, such as industrial designers and naval engineers.

In 2001, CCE developed the Aqualum 35 motorboat with the aim of emulating industry leaders such as Azymuth and Ferreti. López Blanco considered the boat to be a substantial quality upgrade from competing products in the domestic industry. In addition to employing a wider range of skilled workers, production required the use of new materials and suppliers.

Even though he made his first sales locally, López Blanco began attending the Genoa and Venice international boat shows in search of foreign buyers for his Aqualum 35 motorboat. By his own account, colleagues in the industry considered that he was wasting too much time and money on boat shows. He followed this up by producing high-quality marketing materials and taking out advertisements in some of the world's main boating magazines, as well as establishing permanent commercial representations in several foreign markets. CCE achieved its first successful export by sending a boat to Italy in 2001.

To open up new markets, he decided to sell his boats abroad below cost, and he added quality-assurance services that were new to Argentina's industry. For instance, on one occasion he decided to send a technician to the United Arab Emirates to rework an instrument panel for a client that he heard was dissatisfied with that part of his new boat. However, growth was

interrupted by the Argentine crisis in 2001. López Blanco sold personal goods to cover the firm's financial needs during that time.

Since 2002, most of the firm's business opportunities have arisen from López Blanco's participation in international boat shows, first as import broker and later as producer. From the time he worked as a local representative for international brands, López Blanco had socialized with the community of Italian dealers. This allowed him to learn about market demand for specific types of products and their features, as well as about commercial practices in the industry.

Interaction with the Italian dealers underscored the importance of producing high-quality marketing materials written in the language of each customer market. Socialization with Italian dealers also taught López Blanco about specific product features valued by clients. For example, he changed the design of control panels to follow the style of instrument panels on premium automobile brands such as Audi and Ferrari. López Blanco also decided to equip the Aqualum 35 with Italian comfort appliances, which improved customer's perception of the boat's quality. The rationale behind using imported rather than domestic appliances was not only to employ premium brands, but also to set foreign customers at ease by providing appliances that they already recognized and trusted.

From participating in boat shows, López Blanco set up a qualified distribution network for his products, obtaining representation deals all over the world with companies that represent other first-line brands. CCE's products have been exported to Germany, France, Italy, Spain, Norway, Greece, and Venezuela.

Beginning in 2003 and 2004, López Blanco perceived that Argentine origin was gradually becoming a value added for his boats; according to him, that is when specialized yacht journalists started to identify Argentine origin as a positive rather than damaging characteristic. López Blanco perceived that country-of-origin was particularly important for motorboats due to the issue of resale value (as explained above), and so he set out to improve the image of Argentine boats abroad by targeting his marketing campaign accordingly.

In addition, CCE also focused on building international brand recognition for Aqualum, and obtained quality certification from the European Economic Community and the Registro Italiano Navale.

The firm's efforts in terms of improving quality, design, and technical support led to changes in its organizational structure, and has also allowed CCE to develop a larger boat (between 40 and 43 feet) entirely designed by computer and CAD systems for the European market, for which CCE charges a higher cost mark up.

7.1.7 Diffusion

As Figure I.3 shows, diffusion in the motorboat sector began in 2002. The diffusion process is still in the early stages, as the first followers are just now starting to appear. CCE's experience was key in encouraging other firms to undertake export ventures. Builders in the light-ship building community regarded López Blanco as an eccentric for pursuing foreign markets prior to the devaluation of the peso. His approach set an example, however, when he started to successfully export his Aqualum 35 model to Europe during the crisis in 2001.

Altamar Yachts and Klase A. Altamar are two of the followers that have adopted the export business model, emulating the management and marketing practices developed by López Blanco, while possibly benefiting from greater financial resources.

Altamar Yachts was established with the explicit purpose of focusing on the export market, and by 2005, had achieved US\$1.5 million in official export revenues. The company initially attempted to export its product line to the United States and focused on the Miami, Florida market. This venture failed, however, and Altamar learned that it needed to orient its product development to meet the requirements of specific foreign markets. Altamar executives learned from CCE that they could only expect to become competitive in specific niches, so they focused on smaller markets. In 2003, most of its sales were made to Mercosur countries, but the company subsequently reoriented its marketing efforts toward Europe, where it has sold mostly to Spain and the Netherlands. The company has also sold boats to Chile, Brazil, Venezuela, the United Arab Emirates, and Trinidad and Tobago, and has developed a network of five distributors in target markets.

Exports by Klase A amounted to US\$500,000 in 2005. Klase A is still attempting to reconvert its production process toward the export market. It started by selling boats to Mercosur countries, and later turned to the European market, following CCE and Altamar Yachts. Most of its sales are still in Argentina, however, and the firm is transitioning from the domestic to the export business model.

Altamar Yachts and others shipyards have benefited from the diffusion of the pioneer's export business model, and CCE is widely regarded as the industry leader in terms of production and marketing practices. The diffusion process started mainly with word of mouth around the small community of light-ship builders. In addition to this, specific actors promoted the diffusion of CCE's business model: designers and commercialization agents.

Designers helped expand knowledge of customer preferences (linked to Italian design in the targeted market segments) among firms. Firms have become aware of the relevance of commercialization agents in developing sustained exports, as previous export ventures had attempted to bypass agents and broker deals directly through presence at boat shows. Finally, business chambers such as the *Cámara de Constructores de Embarcaciones Livianas* (CACEL) provide a channel for diffusion by enabling contact between shipyards.

Notably, both CCE and its followers regard diffusion to be a positive mechanism because it expands the presence of Argentine firms, and thereby brand recognition, in international markets. In particular, diffusion promotes an improvement in the image of Argentine boats if more firms are able to successfully export products of adequate quality to foreign markets.

This perception is complemented by the fact that the size of the international market largely exceeds the current export capabilities of local firms, reducing the potential rivalry between Argentine shipyards. Additionally, more firms in the light-ship building industry imply a larger sector, which could benefit all the shipyards to the extent that it leads to the development of industry-associated services.

7.1.8 Public Policy Recommendations

Governmental institutions played a secondary role in promoting the development of the light-ship building industry's exports. The impact of the intervention of these agents is currently considered to be very low. It appears that the role of public policies has not been crucial in supporting firms in the sector.

Shipyards received support from the Fundación ExportAR (a governmental organization dedicated to promoting exports of Argentine products) to attend trade fairs, which in some cases occurred before CCE's own marketing campaign but did not yield sustained exports. Thus, ExportAR's support was not critical in enabling the shipyards to establish their brand names.

Interactions between industry representatives and the government of the Province of Buenos Aires occurred through CACEL, so the impact of the province's support may be indirect and hard to detect. CACEL represents both exporting and non-exporting firms, so in practice, it acts as a venue for the diffusion of the business practices of exporting firms.

A number of specific public policies can be implemented to promote further growth in exports in the light-ship building industry. Two actors that would be required to play central roles are universities and the local government of San Fernando.

First, there is a need to develop education and research on naval-related knowledge. This would significantly benefit local shipyards, since knowledge is an important input, and skilled technicians are scarce. Universities with PhD programs in naval engineering played a significant role in technology development in Italian shipyards. This requires close links between universities and firms in the industry. The University of Buenos Aires (UBA) has a hydrodynamics laboratory with a testing channel, but it is in a state of disrepair, and the university's naval engineering program came close to being terminated in the 1990s. Although both UBA and the National University of Technology (UTN) have expressed interest in setting up new programs linked to the naval industry, neither university conducts research and development related to the light-ship industry, possibly because leisure boats are disregarded by the traditional engineering community.

Specific efforts to establish links between the private sector and universities to promote the light-ship building industry should be considered. In Argentina, there is at least one major naval engineering program (UBA) and a sailboat architecture program (UNQ), but there is no specific program for light ships, and neither program is near the San Fernando area. In Italy, the link between the private sector and universities is considered key and is heavily promoted.

Second, establishing an industrial district for the sector would lead to greater visibility for the industry (both locally and internationally), lower supply costs (by aggregating demand for inputs), and better infrastructure. Efforts along these lines could take advantage of the existing industrial concentration in the San Fernando area.

The local government of San Fernando and the the Province of Buenos Aires, played a role in promoting the recognition of the industry within Argentina and in promoting the Argentine brand name abroad. However, in order for it to undertake further export promotion ventures, it may require material and human resource upgrades.

7.2 Television Programs (Case II)

Argentina has a long tradition of film production, and successfully exported films during the first half of the 20th century, mostly to Spain and Latin America. Exports disappeared almost completely after the 1940s, however, and the country's experience with film did not spill over to the television industry. In the mid-1980s, the return of democracy and the end of censorship ushered in a new creative environment resulting in the development of original films and television commercials. A small production company won an Oscar Award for *La Historia Oficial* during this period, an event that marked the emergence of the independent production company as a new type of player in the film industry.

For many decades, the most common way to export television content has been in the form of a finished program, which in Spanish is known as “la lata” (the can). This often involves dubbing the product into the language of the importing country. The leading exporter of this type of product is the United States. Latin America's share of television programming exports involved mostly the sale of “telenovelas” (Latin American “soap operas”), and while Latin America's exports were a negligible fraction of international trade, Argentina only had a small share of these. Argentina's exports were carried out by the broadcast networks and were oriented toward nontraditional markets such as Russia, as the conventional wisdom in the industry was that Latin American viewers did not find the Argentine Spanish accent appealing.

During the early 1990s, most television channels were privatized. This led to a reorganization of the broadcasting industry. The practice of outsourcing production became common, setting the ground for the development of independent production in the television industry. Although these production firms started out by producing content for privatized broadcast channels, they gained exposure to international markets and later sought to develop products for those markets.

Argentine production companies succeeded in becoming involved in international markets by means of the television format, and programs based on these formats currently represent most of Argentina's growing exports in this industry. In brief, a format is a complete guidebook for the production of a specific television program, usually developed jointly with the program itself. Under a format, television programs are purged of local content and licensed to other firms that retain the main structure and features of the program but adapt specific

components to local tastes. Developing a format involves the codification of production and marketing knowledge, and therefore results in an asset that the production company can also resell or readapt for foreign markets.

Television formats fall into distinct genres under two categories—non-fiction (such as news programs, talk shows, reality shows, and game shows) and fiction (such as dramas, special features, and sitcoms). To date, formats have been most successful in the non-fiction genres, but trade in fiction programs is currently growing in the form of “formatted telenovelas.” Formatting strips traditional soap operas of their specific domestic context and replaces it for that of the purchasing country. Adaptation of fiction genres is usually more complex than for non-fiction.

Exporting a format can lead to exporting a large number of services. At the very least, a buyer will purchase the format and related consulting services. This involves the production company assisting the buyer in adapting the format to a local market. Although the information needed to adapt a format to a specific domestic market may be to some extent codifiable, exporters seek to retain this information and deliver it by means of consulting services. In addition to the format, a buyer can also hire a wide range of production services that includes scriptwriters, directors, production managers and assistants, casting specialists, costume designers and tailors, theatrical designers, hairdressers, and post-production editors, among others.

7.2.1 International Trade

The evolution of the international television industry toward the widespread use of formats began in the United Kingdom. Traditionally, production projects in the United Kingdom were carried out within large, vertically integrated organizations with their own technical, creative, and production staff. Until the early 1980s, the United Kingdom’s television environment was dominated by a few large, bureaucratic organizations that produced programs in-house for their own captive, terrestrial broadcast channels. Since then, the United Kingdom has witnessed the development of a large number of independent producers, who play an increasingly important role in the domestic and global industry. According to Barnatt, Starkey and Tempest (2000), the change was spurred by the 1990 Broadcasting Act, which imposed quotas on the BBC and ITV television companies to source at least 25 percent of their programming from independent producers by 1993.

Planet 24, a UK television production company owned by Bob Geldof, created the *Survivor* format in 1994. It initially failed to attract the attention of any major broadcasters in Britain or the United States, but was eventually sold to Swedish television company Strix Television as *Expedition Robinson* (alluding to Robinson Crusoe). The show proved to be a major hit in Sweden in 1997, and remained successful through 1998 and 1999 in European countries such as Denmark, Norway, and Switzerland. This format-based show gave rise to the reality television phenomenon and was the first highly rated and profitable reality show on broadcast television (Moran and Malbon, 2006). Its first season in the United States aired in 2000 under the name *Survivor*, and enjoyed a huge ratings success. Jointly with ABC's prime-time game show *Who Wants to Be a Millionaire?*, it sparked a reality-television revolution. Networks deferred sitcoms and conventional drama series, and rushed reality shows into development. Unlike past programming trends, however, this one was based on formatted programs and program genres that could be adapted with relative ease to the structure of television formats.

The largest player in the worldwide format business is currently Endemol, a television think tank formed by the merger of two Dutch production companies in 1994. Specializing in non-fiction programs, Endemol rapidly grew to become the world's leading format creation and production company, with offices in 23 countries. The company achieved rapid growth through acquisitions as well as through internally developed television production companies.

Format-based programming is displacing other types of production content from the airwaves: the number of formatted shows broadcast worldwide has risen by more than a third from 2002 to 2005, while the number of format hours broadcast increased by 22 percent from 2002 to 2004. International format sales (net of production costs) amounted to €2.4bn in 2004. The United States is the single most important format market in terms of production value, followed by Germany and France. The United Kingdom is the biggest exporter of formats: 32 percent of all format hours broadcast worldwide originate in the United Kingdom.

Sales of fiction formats are small compared to formats in genres such as reality shows, talk shows, and game shows. Game shows account for 50 percent of global format airtime, and the reality show genre accounts for the highest production value (Fey, Schmitt, and Bisson, 2005).

Exports of formatted *telenovelas* have also grown substantially in recent years, and these attract large audiences in both developed and developing countries. Eastern Europe is the fastest growing market for exports of formatted *telenovelas*, and a dedicated regional channel, *Romantica*, was launched in 1998. The channel has seen substantial growth in the number of subscribers and demands a large volume of *telenovela* hours. The Hispanic market in the United States is also a large and growing market for *telenovelas*: in early 2004, 17 of the top 20 Spanish language television programs among Hispanic viewers were *telenovelas*. Although this market is served by a large number of Spanish-language channels showing *telenovelas*, there is no dedicated *telenovela* channel.

7.2.2 Overview of Argentine Exports

Argentina was one of the first developing countries to follow the trend in the United Kingdom, as the privatization of broadcast networks led to the emergence of an independent production industry concurrently with that in the United Kingdom. From the mid-1990s, the separation of functions between broadcasters and production companies drove the latter to use formats when attempting to sell products to broadcasters. Production companies have since developed their own formats for both domestic and international markets, and formats now constitute the bulk of the industry's exports.

Argentine television exports span the whole range of related services, from selling format rights to consulting and production services. Depending on the services involved, the current price of purchasing one hour of television content from an Argentine producer can range from US\$500 to US\$100,000. This variability results from the different types of television programs and production services sold. Official statistics for television exports are difficult to find due to this variability and because the product is not processed through customs, so figures can only be estimated.

Regular exports from Argentina began in 1997 and have grown consistently since, with higher sales values and an increasing number of participants. A conservative estimate of the average export price for television programs and formats is around US\$6,000 per hour. In 2005, an estimated 45,000 hours were sold, resulting in at least US\$270 million in exports.

Approximately 300 Argentine firms are active in the format-production industry, employing 24,506 workers directly. Although some of the firms are large (such as television

broadcast channels), most are small- and medium-sized enterprises (SICA, 2006). The format-production industry broadly consists of independent domestic companies, foreign-owned companies, and broadcast networks.

Most firms are independent domestic producers, and their activities may range in scope from supplying a few specialized services to supplying all production inputs (such as renting equipment and studios, castings performers, filming on location, providing specific human resources, selling film materials, and catering) and creative inputs (script writing, directing, production, scenery and wardrobe design, editing, and acting). Few independent producers are capable of exporting entirely on their own, and most depend on larger companies such as the international offices of broadcast corporations or international companies. Independent production leaders such as Promofilm and Cuatro Cabezas, however, do conduct all aspects of exporting television content.

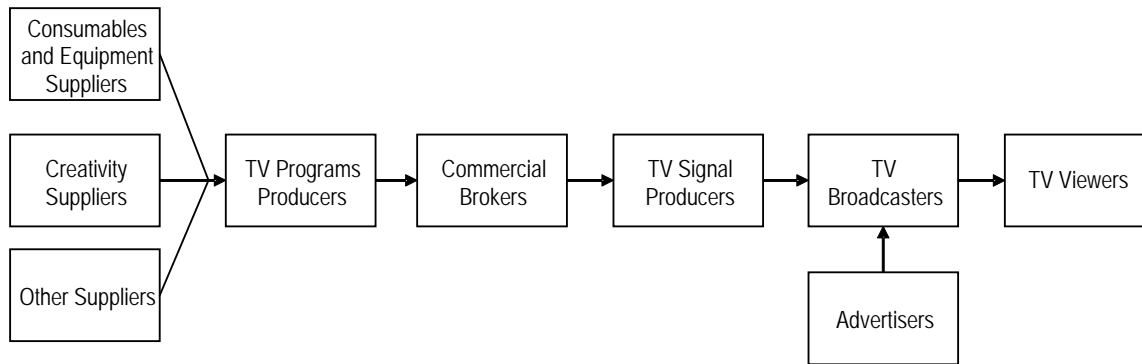
National broadcast and cable channels have taken on a large role in the industry. This trend became more important after *Telefé Contenidos* (which is now the largest exporter in Argentina) was established in 1999. Firms of this type usually supply both production and creativity inputs, and also act as international brokers for their own products and those of smaller production companies.

Foreign-owned companies are also large exporters, and tend to specialize in specific types of programs that usually correspond to the genre in which they started their business. Relevant examples of these are Dori Media and Endemol.

7.2.3 Value Chain of the Television Program Industry

This section provides a schematic description of the value chain for the production of a television program in Argentina, from the suppliers of inputs, to the producers, to the final customers (television viewers).

Figure II.1. Value Chain of the Television Program Industry



Source: Authors' compilation based on industry survey.

Although the value chain of television production is depicted in Figure II.1 as a series of lined boxes, it is particularly complex. Each television program is a unique project requiring a distinct assemblage of skills and capabilities, and production depends on a range of (often freelance) individuals. As a result, the “value chain” has the form of a network, particularly upstream of the television program producers. Roles in the value chain can be played by distinct firms, or these can be aggregated under a single firm. The next section describes each tier in the production of television programs.

Creativity Suppliers. Suppliers of creative content include scriptwriters, directors, production staff (not to be confused with the producers of the finished television program), casting specialists, costume designers and tailors, post-production editors, theatrical designers, hairdressers, and actors. These are usually freelance workers whose services are purchased by the program’s producer, who acts as the integrator and business maker. Suppliers of this content are critical to the success of the television program because they tailor the product to the preferences of the target market and provide the distinctive qualities that can make a program appealing to viewers. The size of the population of creativity suppliers is an indication of the maturity of the television industry. In Argentina, there is a large population of television scriptwriters, organized under the Argentine Scriptwriters Society (*Sociedad General de Autores de la Argentina*), as well as specialized websites and interest groups that organize and lobby for the community and train new authors and writers.

Consumables and Equipment Suppliers. Consumables and equipment suppliers include the owners of film sets and studios, firms that rent equipment, and suppliers of film consumables

such as media (tapes and optical discs). These suppliers are less critical than creativity suppliers in terms of the characteristics of the final product, but in some cases establish long-term working relationships with producers.

Other Suppliers. Production requires supporting services such as catering, staff for secretarial and janitorial work (often temporary), and suppliers of office and hardware products needed on a filming set.

Television Program Producers. The output of television program producers is a ready-to-watch television show. In a sense, television program producers are like ready-to-eat food producers in that they integrate a broad array of “ingredient” suppliers to produce a high-value product. However, relationships between program producers and their suppliers are not like those in the food industry. Since each television program is unique, it is tailored and produced as a project rather than as a part of a process line. Television producers are not engaged in business transactions with every supplier all the time. However, they are engaged in persistent business relationships, particularly with suppliers of creative content. This type of relationship is termed a latent organization in the organizational sociology literature, because business relationships are long term and are based on the reliability of the resources and capabilities of each individual agent in the latent organization. Capabilities and the track records within the latent organization provide quality assurances that allow the network to function (Barnatt, Starkey and Tempest, 2000).

Television-signal distributors and television broadcasters. Before the appearance of cable television, content production and the broadcasting function were integrated into the same firm. Since the creation of cable television, the roles have been split between the producers of channel content on the one hand, and the distributors of the cable television signal on the other. Content producers create specific “television channels”—a series of television contents, such as programs and infomercials, that are usually presented as an individual channel on a television set. Channel content is sold to cable signal distributors, who package content as channels from different sources and market paid television services to final consumers. It is still common, however, for television-signal distributors to be involved in broadcasting. This is the case with “traditional” television networks such as ABC in the United States, or Grupo Clarin’s ARTEAR and Multicanal in Argentina.

7.2.4 Trends toward Integration of the Value Chain

The value chain for television program production has swung from integration to disintegration and, in recent years, back to integration under a different form. Traditional integration involved television channels doing broadcasting, signal production, and television program production. Television channels owned the studios and all human resources were channel employees. These integrated organizations evolved into a set of more specialized firms, with all roles described in this section fulfilled by independent firms. Since 2000, a number of companies have started to integrate under different frameworks. Some television channels regained a role in television program production: *Telefé* created *Telefé Contenidos* and *Canal 13* acquired stakes in two independent production companies: *Ideas del Sur* and *Pol-ka*. Another form of re-integration also occurred when the domestic branch of *Endemol* (a production company) purchased the traditional studio set *Estudio Mayor*.

7.2.5 Domestic Business Model versus Export Business Model

Argentina's current export boom in television programs is driven by a new business model for creating, producing, and trading television content. Production companies follow a specific set of practices to conceive and implement program ideas and adapt them to local markets abroad under the framework of the television format. The model is based on the division of television production into distinct stages, with conception or idea development clearly separate from production, as well as an explicit aim to isolate the components that can be sold abroad. The development of this model allowed the specific services that are embodied in a format to be exported on their own for the first time. This is in contrast with exporting a finished program, where it is almost impossible for the product from the exporting country to divest itself of local traits. Producing a program under the format model does not serve a purpose unless the format is to be exported, so format creation is necessarily linked to an export business model.

Under the domestic model, the conception and production of television content is carried out in a unified manner. A production company will attempt to export the finished program if it was successful in the domestic market, but under this model, exporting is necessarily a secondary activity and cannot motivate production independently. Watching an (often dubbed) imported television program requires an exercise in cultural openness from the viewer, so international

trade of television programs under this model was dominated by production companies that could lower cultural barriers between viewers and their product.

Product upgrade. The adoption of the export business model implies a change not only in the characteristics of end products experienced by viewers but also in the nature of the process that leads to the final product. To develop formats, producers must create television content with a strong plot structure or framework but must also allow for variation in production procedures, which requires a more flexible, professional, and organized staff. The minimal requirement to export a format is for a television program to be purged of local content and licensed to other firms that keep the main structure and characteristics of the program but adapt specific components to local tastes. At the other extreme, exporting a format can entail a substantial part of the adaptation work as well as production, either in the country of destination or origin, or in a third country. Production in this case requires all associated services to be capable of deploying for export.

Companies that follow the export business model also develop specific relationships with other agents in the value chain. In order to be flexible and potentially scalable as required by specific projects, independent production companies form working relationships with a large network of independent suppliers. Associates of production companies must upgrade their practices to supply the independent producers who are leading the export of production services. In addition to the performing and production services mentioned above, freelance networks are often developed with companies providing studio sets, animation, and stunt services.

The domestic production model in the television industry is centered on finished programs aimed at reaching domestic audiences. Since producers under this model have a relatively in-depth knowledge of the relevant market, most uncertainty involves aspects of production and whether the product will adequately match these relatively well-known tastes. Production companies under the export business model add a further layer of uncertainty to their business, as they need to learn the taste patterns of viewers in foreign markets. This requires an additional set of skills from creative and production crews, such as knowledge of these tastes or the ability to respond to directives on these tastes, which requires that they carry out their roles differently than when producing for their country of origin.

Producing the adaptation of a format requires learning the characteristics of target markets. This requires acquiring information on specific cultural components of the target

market (such as a specific demographic group within a country or region) by contracting local consultants and upgrading production crews to develop skills in social and market research.

Game shows are the most common type of format, and many of these are remade in multiple markets with local contestants. Key examples include *Survivor*, *Who Wants to Be a Millionaire?*, *Pop Idol*, and *Big Brother*, all of which have been successful worldwide. Game and reality shows are highly adaptable as formats. Under the domestic business model, these entertainment programs are often based on charismatic hosts and impromptu comedy and lack plot structure. To drive ratings, they are designed to exploit idiosyncratic tastes and local customs, making the finished program itself very difficult to export. However, these types of programs are among the easiest to strip of local features. Under the export business model, product design and production are separated with a view to developing an exportable format. Among the largest companies developing these formats for export from Argentina are Endemol, a Dutch TV think tank, and Cuatro Cabezas, an independent production company.

Fiction formats must overcome substantial cultural barriers in order to be exported, since elements such as plot and character development may be harder to isolate from local characteristics. Under the export business model, the product is designed to avoid relying on the idiosyncratic tastes and local customs of the country of origin, and match more universal tastes. When producers started to design fiction programs for formatting, they broke down plot structure into a core story of universal applicability with added modular components, and developed adaptable characters and “exchangeable” specific content. For instance, *Rebelde Way*—a *telenovela* produced by the Cris Morena Group (CMG) that became Dori Media’s biggest hit and has been hugely successful in 50 countries—is based on the problems of high-school teenagers. The extent of differentiation through format adaptation has allowed this program to be successful in several European countries in the form of both the domestically adapted format and the Argentine finished program. In Spain, the Argentine version of *Rebelde Way* competed with the Spanish one in the same time slot.

Marketing upgrade. The emergence of new categories of television programming products—new types of finished programs, formats, and regional content for cable channels—has changed the marketing of television products.

Entrepreneurs under the export business model pay close attention to global programming trends and may in turn be part of larger networks, allowing them to increase their

exposure to and connections with destination markets. Distribution in the domestic market is relatively simple. To a large extent, it depends on long-term relationships between producers and programming managers or their staff. Access to the international marketplace is more competitive and can occur through several routes. As with the domestic model, one route is based on personal contacts and established business relationships with international distributors, but these are relatively harder to establish. An alternative route for expanding exports is seeking new sales at industry trade fairs.

Argentine industry leaders travel regularly to world industry fairs, particularly in Cannes, France, and the United States. Producers cultivate commercial relationships with network managers and potential future associates in production or commercialization. They also screen the market for programming trends and for new opportunities to design and create their own formats for specific market niches.

Learning about new format types at trade fairs also allows Argentine producers to supply production services for popular and internationally well-known formats. Argentine firms can then market production services, adapting and producing formats that they do not own. The ability to market this additional export activity follows directly from the production upgrades provided by the export business model.

Exporters must have a marketing strategy to present their products at international fairs. For Argentine producers, this requires overcoming country-of-origin bias. Argentine producers use different approaches to solve this issue, such as entering into joint ventures with companies from third countries, adopting the form of local branches of international corporations, and building a reputation through the gradual accumulation of experience providing formats and services in markets of relatively easier access. Access to these markets, in turn, is facilitated by ownership of a successful television program that may act as a flagship or showcase product for the independent production company.

A recent marketing strategy by Argentine producers has been to present and sell *telenovelas* as a format. This approach has proven to be successful and has helped build brand recognition for Argentine products on international television markets, since these types of products had not been formatted successfully in the past.

7.2.6 Pioneer

One of the first production companies to produce content independently for the newly privatized broadcast channels in the 1990s was a newcomer to the industry: Horacio Levin's Promofilm. Promofilm was originally an advertising company targeting the domestic market, but some of the firm's projects in the late 1980s started to change its business focus. The company's first production efforts had been standard television advertising spots, but in order to sell commercials for toy companies, Levin started to trade in cartoons and animated films with state-owned channels. He purchased foreign entertainment films for children that programming managers had not heard of before, and successfully introduced the films into the domestic market, which at that stage was the only market in which he was seeking to become involved. Levin's first innovation was therefore on the commercial side of the television business, and under the domestic business model.

By his own account, Levin was able to broker these deals because he understood some of the flaws in the television industry from the inside. For instance, he knew that newly privatized broadcasters had to a large extent disregarded global programming trends. According to Levin, *"We were far away from the world.... In those days, nobody (in the television industry) took notice of what was going on in the world."*¹⁶ He thought the television production business at that time was open to newcomers, but he regarded himself as young and inexperienced.

Levin compared television produced for international markets with domestic products, and came to the conclusion that most domestic programs were produced without well-planned content frameworks, relying on celebrities and impromptu comedy. He sought to identify programs with more solid program structures that could be successful independently of features such as the charisma of television celebrities. In particular, Levin decided to become a television producer by adopting generic features from U.S. television shows.

Promofilm's first experience in production was under the form of "advertainment"—an entertainment program with a single major sponsor that was moderately successful. He later employed a genre that was new to the domestic market: talk shows. Promofilm merged the talk-show formula to components with an Argentine appeal (specifically, the show was focused on social issues), creating a program named *Causa Común*. The program was launched very

¹⁶ Interview with Horacio Levin, authors' translation of "Estábamos mucho más lejos del mundo aquí En aquella época nadie le importaba lo que pasaba afuera."

successfully in 1993, and Levin became well known in the Argentine television industry as the creator of an unusual hit.

According to Levin, program managers working for the television broadcast channels took notice of his approach. He says that he made an effort to keep up to date with best practices in the industry: *“I was always interested in the outside world, I found it very tempting.... I greatly enjoyed looking for things abroad to bring them back (to the domestic market).”*¹⁷

Levin made it a practice to travel to world industry fairs and meetings four times a year—twice to Cannes, France and twice to the United States. He also developed a close relationship with the owners of Globomedia, a Spanish independent production company. Levin met the owners of Globomedia when they visited Buenos Aires to attempt to sell a format for a game show. The relationship led to joint production ventures, and the companies merged in 2000. His visits to trade fairs and his relationships with Spanish colleagues gave Levin first-hand knowledge of the latest trends in the global industry. He met and established relationships with colleagues from other countries, and learned about new production models and genres that at the time were unheard of in the domestic market.

Levin was observing these trends in global television markets just as formats started to come into use. For him, the initial appeal of this practice was that he could employ successful programs and introduce them to the domestic market—as he had earlier done with cartoons—but he could also start playing a role in production. Levin’s next step was to employ this new production model, and adapt it to the domestic market.

Levin presented an idea for a new game show to Channel 13 of Argentina. Despite the proven success of the format, Levin states that network executives saw the product as a substantial risk because they were cautious about mainstream ideas from the international television industry that were still new to the domestic market. In negotiating a deal to produce the show, Levin acquired most of the upside and downside risk. Channel 13 paid for a fraction of fixed costs, and the remaining cost were left to Promofilm.

The program—known as *Sorpresa y Media*—was adapted from part of a Spanish program. Levin purchased the format from Spanish producers and worked out a new show,

¹⁷ Interview with Horacio Levin, authors’ translation of “A mi siempre el mundo exterior me resultó muy interesante, muy tentador.... Me gustó mucho ver que había afuera para traerlo acá.”

developing further additions. The product performed very well in terms of audience and commercially.

An unusual aspect of *Sorpresa y Media*'s success was that it achieved high ratings despite airing on Sunday nights. This time slot had been relatively neglected by networks, but after the program's success they started to pursue audiences more aggressively by scheduling programs with higher production value. Producing *Sorpresa y Media* allowed Promofilm to gain further production experience and upgrade its capabilities for domestic production. The program involved a large staff and substantial logistics, and Promofilm developed the operating practices of producing a live prime-time show. Levin seized on this success to upgrade Promofilm's human and equipment resources.

Producing *Sorpresa y Media* also generated a successful showcase product for Promofilm to display to regional broadcasters. *Sorpresa y Media*'s arrival as a flagship product for Promofilm was timely; while it was enjoying success in the domestic market, countries such as Venezuela and Colombia were privatizing and opening their television markets as Argentina had done five years earlier.

Levin felt that the increased openness in regional markets would allow him to attempt the same production model and methods abroad. In 1995, he decided to create his first joint venture with Spain's Globomedia. Their agreement was to share production strategies and logistics as well as formats, expanding to Latin American markets with the aim of "*putting Promofilm and Glomedia's experience into play in other countries.*"¹⁸ Levin's decision to undertake a joint venture with Spanish colleagues had several advantages: it reduced the uncertainty due to the financial risk of the new venture and provided him with an enhanced perspective on the global television market, allowing him to scan the world for new formats.

Promofilm-Globomedia developed its first formats based on its successful Argentine television programs, adapting them for the Latin American market. The pilot case was *Sorpresa y Media* in Venezuela. Since this was a new venture for both companies, neither Promofilm or Globomedia had a clear plan to adapt the format to foreign tastes. In the first months the show was aired in Venezuela, it became clear to the team that they could not replicate the show's success by rigidly repeating the practices used in Argentina. According to Levin, they discovered

¹⁸ Interview with Horacio Levin, authors' translation of "Llevemos la experiencia de Promofilm y Globomedia a otros países."

that they needed to make changes in style and content to make the show less melodramatic (a component that appealed to Argentines) and more upbeat—more “*chébere!*” (to appeal to Venezuelan culture). The program was subsequently adapted for Brazil, Ecuador, and Colombia.

Adapting *Sorpresa y Media* to different foreign audiences allowed both companies to gain substantial experience with this process. Learning from this experience, they took steps to adapt other formats.

Another significant stage of experimentation took place with the earliest type of globally traded television format: game/reality shows. Being aware of the European television market proved to be a key commercial ability for Promofilm, as scanning for new formats and opportunities led the company to one of its most successful formats: *Expedition Robinson*.

The Promofilm-Globomedia joint venture was an early adopter of the *Expedition Robinson* format, and purchased the rights to produce the show in Latin America and Spain. Six months later, CBS bought the rights to produce the show in the United States. The show (known as *Expedición Robinson*) aired in 2000, on the Telecinco network in Spain and Channel 13 in Argentina, and was a huge success.

Expedición Robinson was the first reality show ever seen on Argentine and Spanish television. It was a local production, adapting the Swedish version of *Expedition Robinson*, and was contemporaneous with the show’s first seasons in Germany-Austria, the Netherlands-Belgium, and the United States.

The program’s production involved a crew of more than 100 people, including producers, scriptwriters, camera and sound technicians, and art directors. Production occurred on location in Panama, involving considerable logistics. However, the uncertainty surrounding such a complex production was overshadowed by the risk of putting the program on the air.

Although the production of *Expedición Robinson* seems like a major commercial risk for a small company like Promofilm-Globomedia, Levin perceived the uncertainty to be low. He explained, “*I do not remember ever taking a significant risk, I was pretty sure that the business would cover my costs. However, I was impressed by the huge success it had. The country (Argentina) froze during the final episode of Expedición Robinson, everybody in Channel 13, artists or network executives were asking me who was going to turn out to be the winner.*”¹⁹

¹⁹ Interview with Horacio Levin, authors’ translation.

Promofilm-Globomedia's ability to successfully adapt *Survivor* to the Argentine and Spanish markets garnered international credibility for the firm. This was made clear when the company heard from Planet 24—the owners of the original rights to the format—that they were so pleased with their performance that they were recommending the production services of Promofilm-Globomedia during meetings for the sales rights of *Survivor*. This translated into contracts to produce 17 different versions of the program from 2000 to 2003, for foreign markets such as Spain, Italy, Chile, Colombia, Venezuela, Hungary, Russia, and the United Kingdom, among others.

The *Expedition Robinson* venture showed the company that it could go beyond its previous export ventures, which focused on Latin America as a main target, to become part of the global television industry's value chain. Its experience with *Expedición Robinson* enabled Promofilm-Globomedia to further enhance the skills and training, as well as the size, of its workforce. In addition to acquiring greater technical skills, Promofilm-Globomedia acquired the ability to delegate to independent creative and production teams that could be deployed flexibly to simultaneous productions. According to Levin, "*Success arrived when the Promofilm staff understood what it took to reach people's desires in each country ... and adapt the show to each place.*"²⁰

Promofilm trained this network of people using resources that were to a certain extent already available in Argentina. These included skilled technicians and managers, as well as people involved in Argentina's long history of audio-visual production. Resource availability allowed Promofilm to grow quickly and at relatively low cost, while still achieving world-class quality. The availability of these factors also provided favorable conditions for the subsequent diffusion of Levin's export business model.

Promofilm-Globomedia used talk shows and reality shows as a platform for experimentation in creating its own formats for export to foreign markets. The company adapted talk shows and reality shows to the particularities of other markets such as Colombia, Chile, Ecuador, Mexico, and the Hispanic market in the United States. These activities led the company to deal with the region's main broadcast networks, such as RCTV and Venevisión in Venezuela, Caracol and RCN in Colombia, Azteca in Mexico, and Telemundo in the United States.

²⁰ Interview with Horacio Levin, authors' translation.

Promofilm has since successfully created and produced programs for Telemundo such as “*Protagonistas de Novela*” in 2000, the first reality show that the company produced exclusively for the U.S. Hispanic market. A version for Argentina was not produced, so this was the first time that the company aired a show without previous experience in its home-base market. The program was successful and was later produced by Promofilm for five other countries in Latin America, and has recently aired in Greece.

Promofilm has continued to export formats without pre-testing in the home market. In 2004 it produced *El Conquistador del Fin del Mundo*, a journey through the Argentine Patagonia featuring teams from five countries competing at game events. The show was produced and broadcast simultaneously on five Latin American networks: TV Azteca (Mexico), Gamavisión (Ecuador), Telemundo (United States), UCTV (Chile), and SBT (Brazil). The show was also adapted for Basque TV.

Leveraging its earlier experience with the “advertainment” genre, the company created and produced formats for documentary/reality programs such as *Lo Dejo en tus Manos* (a home-renovation program sponsored by Loews) and *Mi Primer Hogar* (a home-renovation program sponsored by The Home Depot), exclusively for Telemundo.

In 2004, Promofilm purchased the format for *Temptation Island*, a game/reality show owned by Fox, and adapted it to four different foreign markets: the Fox and Telemundo channels in the United States, Hungary, and Brazil.

The company’s growth led to the opening of offices in various countries in Latin America and the United States, employing teams of local professionals to meet the growing demand for formats and programs. But production capabilities were evolving quickly, and competition caught up with Promofilm both at home and abroad.

7.2.7. Diffusion

Promofilm was the main actor promoting diffusion of its own export business model. After the success of *Sorpresa y Media* and the sale of production services to prime markets such as the United States, Promofilm attained the stature of an industry leader. The outlines of Promofilm’s business model were common knowledge to the community of television producers in Argentina, and Levin felt that he had nothing to fear in sharing specific knowledge with others.

Promofilm's crew and Levin himself acted as vectors of diffusion. Production companies such as Cuatro Cabezas, Telefé Contenidos, ARTEAR, Cris Morena Group, Ideas del Sur, and Pol-Ka followed Levin as the next generation of exporters, and learned from Promofilm's experience.

There were, however, other vectors of diffusion of the export business model. International format providers such as Endemol and Promofilm's Spanish associate Globomedia also spread the export business model via two channels: by providing guidance for the domestic production of formats, and by establishing domestic offices to buy formats for export to foreign markets. Early in the diffusion process, Globomedia and Endemol purchased the operations of independent production companies in Buenos Aires.

Diffusion at the domestic level was facilitated by the existence of production capabilities that existed in a dormant state within the Argentine television and film industries. The most important cultural attribute required to export or adapt television formats is the ability to adapt programs to different local tastes. The success of Promofilm generated positive spillovers in the form of a demonstration effect.

There are currently at least four large and 20 small industry followers. Two of the large firms remain independent producers: Cuatro Cabezas and Endemol Argentina (currently P&P, following an acquisition)—while the other two are leading national broadcast corporations that have incorporated the production function: Telefé with its Telefé Contenidos division and ARTEAR (Channel 13) with two captive production companies (Pol-Ka and Ideas del Sur).

Cuatro Cabezas is one of the larger followers and is currently the export leader. It has been successful at selling original formats from programs developed originally for the domestic market. On its way to becoming an exporter, Cuatro Cabezas repeated the same learning path as Promofilm. It was initially a newcomer to the industry and it mainly targeted the domestic market. Despite some initial failures, the company reoriented itself to produce entire television shows independently from national broadcasters, innovating on the content side of the business while employing the traditional production model.

Its main product, a format derived from a program called *CQC* (*Caiga Quien Caiga*) is a long-run commercial export success. It started as an innovative program on Argentine television, with good response from the Argentine audience. The show is a comedy-based weekly news roundup, and is presented by a trio of anchors who employ heavy doses of irony, as well as street

reporters who ask politicians and celebrities uncomfortable questions, seeking to provoke funny reactions. Alumni from this program have moved on to starring in other programs, which in some cases have also led to successful export formats.

The success of this program provided Cuatro Cabezas with a flagship product with which to attempt sales to foreign markets. Notably, the company's ability in converting the show into a television format was a direct consequence of an intervention by Horacio Levin. The program was adapted for Spain in 1996, when Levin purchased the rights for his associates of Globomedia. Spain was the first country where Cuatro Cabezas exported a format. Later the company took an independent path and established its own office in Madrid. It also adapted the show for France, Israel, Chile, and Italy. With offices accommodating 100 people in Madrid and Santiago, Cuatro Cabezas currently supports the production not only of *CQC* but also of *E24*, a documentary/reality show.

The experience with this flagship product enabled Cuatro Cabezas to learn the commercial side of international format trading. Although the company had produced a strong product for the local market, it had not acquired knowledge of international trends in the television industry or a strong reputation. Critically, however, the type of content with which Cuatro Cabezas was successful in the domestic market was of a nature that could be formatted: it relied on a rich program structure that was relatively independent from the show's television personalities.

Cuatro Cabezas evolved into a think tank for the development of innovative formats, and its format-creation capabilities allowed it to overcome its initial inexperience in the commercial area. The company has sold other formats for broadcast television, such as *El Rayo*, *Puntodoc*, *SuperM*, *Algo habrán hecho*, *La Liga*, *E24*, and *Nos pierde la fama*, all of which were originally developed and tested in the domestic market. The firm's success has allowed it to access international cable markets. For example, Cuatro Cabezas has produced programs for HBO (*Sexo urbano*), TNT (*Proyecto 48*), The History Channel (*Historia secreta de las ciudades*) and Discovery Travel and Living (*Ciudades y Copas* and *Casas*).

Since Promofilm started to develop capabilities to deal with formats in the early 1990s, Cuatro Cabezas and Telefé were followers in the domestic market as well. These companies employed formats in 2000 to air successful reality shows such as *El Bar* (Cuatro Cabezas) and *Big Brother* (Telefé). As followers in the adaptation of formats for the domestic market, these

companies also developed new capabilities and skills that could later be leveraged for format creation and export.

The pattern of diffusion is intertwined with the evolution of the industry's structure. Following a period of expansion in the activities of independent production companies during the late 1990s, broadcasters such as *Telefé* and ARTEAR started to take on greater production roles in 2000. Promofilm-Globomedia has entered into a partnership with Televisa and has developed a television channel from scratch in Spain.

Telefé, a major television channel in Argentina, underwent a substantial change in strategy in 1999. The company split its production business into two divisions: *Telefé Contenidos*, in charge of production services and format creation, and *Telefé Internacional*, a division in charge of international commercialization.

As with other exporters, *Telefé* started by importing and adapting formats, specifically reality shows and sitcoms. *Telefé Contenidos* produced *Big Brother* in 2001 and 2002. The company has continued to act as a format importer, and in 2004 produced a domestic version of the successful U.S. sitcom *The Nanny*. Employing these format genres was considerably innovative for the domestic market, and required substantial adaptation skills from *Telefé Contenidos*. In 2006, the company started airing a second version of the U.S. sitcom *Married with Children: Casados con Hijos*.

Telefé benefited from diffusion through a business relationship with the pioneer. *Telefé* staff learned about implementing the production aspect of adapted formats while leasing studios to Promofilm, when this company filmed *El Frijolito*, a Mexican-style soap opera for the U.S. Hispanic market (Telemundo). From this experience, *Telefé Contenidos* reverse-engineered the aspects of the production process that allowed Promofilm to fictionally set the program in Mexico despite producing it in Buenos Aires.

After its success in adapting international formats to Argentina's domestic markets, *Telefé Contenidos* started to create its own content under the export business model. The channel's inward orientation has changed since the 1990s, when the company targeted the domestic market exclusively and aired mostly light comedies and soap operas. Programs developed under the export business model (either as exports or imports) currently occupy every broadcast hour on the network. One important event in the reorientation of production was, as

commented above, the local production of “Big Brother.” According to a consultant, “*With the production of any reality show, the level of professionalism developed is high.*”

Telefé Internacional has sold Telefé’s own format products (such as *El Deseo* and *Resistiré*), and acted as an international broker for small independent producers such as Ideas del Sur, helping it sell programs such as *Los Roldán*, *Disputas*, *Tumberos*, and *Sol Negro* (through the end of 2005). Telefé Internacional has been involved in brokering sales by several companies: Yair Dori Internacional (*Rebelde Way*, *Rincón de Luz*, *Mil Millones*), Cris Morena (*Floricienta*, *Rebelde Way*, *Rincón de Luz*), RGB (*Abre tus Ojos*, *Kachorra*, *Provócame*), Central Park (*Jesús El Heredero*) and ARTEAR/Pol-ka (*Padre Coraje*).

Telefé has also started to develop fiction formats from programs that have been successful in the domestic market, such as *Simulators*, produced by Daniel Szifron. It is also attempting to extend the international success of *Resistiré*, which is a psychological fiction drama with a running back story as well as storylines that wrap up in each episode. Innovation in terms of new format types, as was the case with Cuatro Cabezas’ sale of CQC, allows local producers to further extend their sale in foreign markets beyond the sales of production services and formats in traditional genres.

ARTEAR, Argentina’s other leading broadcast channel, followed a path similar to that of Telefé but started later. ARTEAR’s practice until 2003 had been to develop relationships with independent production companies such as Promofilm, Pol-Ka, and Cuatro Cabezas through an open-contract policy. The policy changed when the network hired Adrian Suar, founder and CEO of formerly independent production company Pol-Ka, in the role of general manager and tasked him with creating a pool of captive production capacities: Pol-Ka and Ideas del Sur were taken over by ARTEAR. In 2004, the companies produced the miniseries *Epitafios* for HBO. ARTEAR and Pol-Ka are now producing the *Desperate Housewives* format for Argentina as well as six other Latin American countries, and plan to create an international format brokering company.

Foreign investment has also provided a channel for the diffusion of the export business model in Argentina, and the main players in this role have been Endemol and Globomedia. Endemol Argentina started as an independent production company in 1997, under the name “Producciones y Publicidad.” In 2001, the company merged with Dutch television think-tank Endemol and changed its name to P&P Endemol.

The company's biggest success has been the *Big Brother* reality show, with versions in airing many countries after the initial Dutch version, and the company has specialized in developing formats for inexpensive production. The company was sold to Spanish telecommunications and media corporation Telefónica in 2000. This caused Endemol to become a natural ally of Telefé, another company in Argentina that is also owned by the Telefónica group.

Endemol Argentina is currently widening its scope to fiction, documentary series, news programs, and children's programs. The company exported 700 hours of television programming in 2005, including formats such as *Cuestión de Peso* to Italy and Spain, and *El último pasajero* to Vietnam, Turkey, Indonesia, and Chile.

The Promofilm-Globomedia venture reached a new stage in 2000, when the partners decided to merge both companies and change their export strategy, as they had failed to retain a leading position in Latin American markets. It became clear to the partners that the strategy of replicating a domestically successful format with a quality upgrade (as they had done on the domestic market with *Expedición Robinson*) was under intense competition.

Independent production companies in their destination markets discovered how to catch up with minimum production capabilities. In a period of three to four years, countries such as Venezuela, Chile, and Colombia upgraded their own production industries. Promofilm's office in Venezuela, which at its peak employed almost 150 people, was closed, along with offices in several other Latin American countries. The company retained its offices in Mexico, as well as in Miami and Los Angeles, with teams of local professionals to provide production services for large clients such as Telemundo, Fox, HBO, Televisa, and Azteca, among others. Promofilm-Globomedia has become a division of Grupo Arbol—a Spanish media conglomerate with offices in Los Angeles, Miami, Madrid, and Buenos Aires.

Under Arbol's management, the company is currently producing more than 3,500 hours of programming per year for broadcast and cable networks around the world, and holds a 40 percent share in Mexican network Televisa. Promofilm-Globomedia's main strategy and efforts have been reoriented to the Spanish market, and it is currently devoted to producing a network channel in Spain, named *La Sexta*, which was launched in 2006.

Levin decided to leave his executive position at Promofilm-Globomedia in 2004, when it became clear to him that Grupo Arbol would focus its television division on the broadcast side of

the business. The Argentine office of Promofilm-Globomedia has lost its leading export position to Cuatro Cabezas, Telefé, and Endemol.

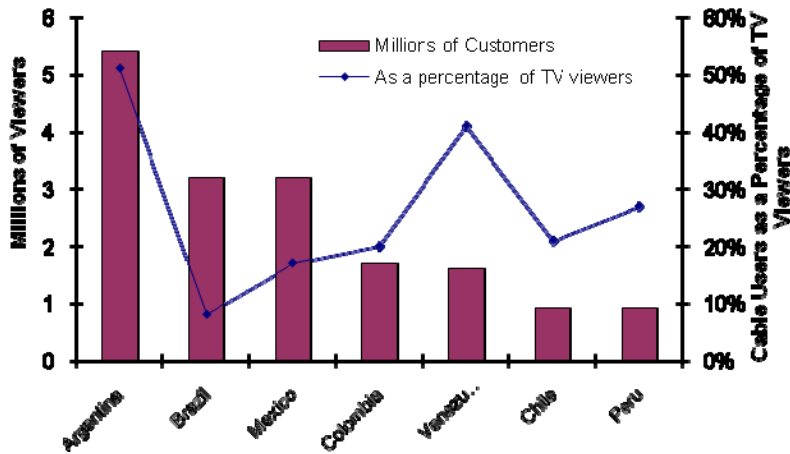
Although diffusion took place mostly in the domestic market, it was also of a regional nature. As explained above, it became difficult for Promofilm to retain a leading position in adapting formats for Latin American markets after 2000, when Independent Latin American production companies started to catch up. Levin acknowledges that some of the capabilities required by his business model diffused during joint production with partner companies in target markets. For example, Teleset in Colombia and Magnolia in Italy hired entire task groups of technical staff from Promofilm during co-productions, while Televisa, the largest television broadcaster in Mexico, recruited an entire group of Promofilm's scriptwriters from.

Domestic diffusion also takes place through the creation of new companies led by former managers of pioneer or followers that leave employed positions to start their own businesses. New and small companies are attempting to become permanent exporters of content for cable TV channels. Examples include Tandem Producciones, home to the former production managers of Cuatro Cabezas, and Nativa Productions Inc., home to the former production managers of Pramer, a cable content distributor and producer with a regional scope.

A distinctive feature of these new offshoot producers is that they target production of content for cable television in the United States, Europe, and regional markets. The size of the Argentine cable market has aided these production companies in the development of niche cable products, as required by export markets. Argentina was one of the first markets in Latin America to introduce cable television, and as shown in Figure II.2, the extent of cable television viewership remains exceptionally high by regional standards.

Figure II.5.

Cable TV Viewers In Latin America (2001)



Source: Morgan Stanley, 2001 statistics.

It turns out that specialization patterns in television exports are not exclusively related to regional coverage. Successful specialization in certain genres and segments, such as young Hispanics in the United States or fiction lovers in Russia, has allowed for substantial export growth compared to the replication of domestically successful formats in nearby regional markets.

A second stage in the diffusion process is currently underway. Some elements from the business model for exports, such as content for cable channels and in the advertising industry, are being employed in related products and sectors.

Even though a few firms specialize exclusively in either television programs or commercials, many are involved in both, as well as in the production of films. The success in exporting television formats or production services is now spreading to other divisions of the same companies, leading to a similar success in the export of television commercials.²¹

Although formats and production services are the key elements in the export business model, the development of long-term business relationships and new production methods has

²¹ Although television advertisement exports are outside the scope of our study, it is worth mentioning that of 1,384 commercials filmed in Argentina during 2005, 712 were made for the domestic market and 672 were exported. Although there are no official statistics on these exports, Eddie Flehner (CEO of Flehner Films, Argentina's largest

also allowed for substantial growth in sales of finished programs. Unlike production under the domestic business model, however, where exports of the finished product were an ancillary activity and had no influence on production, some domestic programming is currently developed with a view to its international marketability. The sale of a domestic program in the form of a “lata” has become integrated into domestic production activity, as this activity is now synchronized with the export business model.

7.2.8 Counterfactual Case

In Argentina, the case of Ideas del Sur illustrates an example of failure to export in this industry. With a large portfolio of well-known and successful domestic programs, the company has attempted to emulate the successful experience of Promofilm and other followers, but has failed repeatedly.

The company’s degree of specialization in comedies for the domestic market may have been partially responsible for its failure to adapt its program *Los Roldán* effectively for the Mexican and Colombian markets. The program performed poorly in these countries and business failure led Ideas del Sur to downsize its workforce significantly and merge with ARTEAR.

The fact that production in this industry is carried out by loose networks of collaborators means that it is very difficult to keep production secrets. These types of information leaks, however, do not guarantee the complete diffusion of the export business model. Developing a format involves the codification of production knowledge. In the case of Ideas del Sur, codification was delegated to Telefé Internacional, which went beyond brokering and became involved in format management. As a result, Ideas del Sur voluntarily forfeited a creative role in format creation.

Ideas del Sur failed at learning and carrying out the export business model. The company did not learn how to purge the local content from its programs or how to develop programs that were suitable for formatting. The main structure of its programs provided an insufficient base from which to attempt adaptation of specific components to local tastes.

Following its failure to produce its own formats, Ideas del Sur has become a format importer, constraining the company to provide production services for the domestic market. Although the case of Ideas del Sur suggests that the export business model may not be adequate

production company by film-hours) estimates that exports of television spots in 2005 ranged between US\$70–100

or completely defined for comedy-based formats, idiosyncratic aspects may have driven the company's failure. Ideas del Sur is owned and managed by the charismatic hosts of its successful domestic programs. The latest generation of production companies, in contrast, is owned and managed by former production managers that worked for the larger established exporters and had the entrepreneurial drive to start their own businesses. Ideas del Sur's management remained mostly focused on the domestic market throughout the period and outsourced key functions in the export business.

7.2.9 Public Policy

The Argentine national government did not play an active role in either helping the pioneer discover his business model or in promoting its diffusion. There are no national government offices dedicated to production in this field. Other offices or agencies deal with the film industry within the realm of cultural policy and with the aim of promoting Argentina's film industry.

The national government's film promotion agency focuses on cultural preservation and is designed to "defend" Argentine film. Officers in charge of this agency and the film community that supports those policies focus exclusively on national film promotion, as television production is considered a minor art and a commercial product that does not require governmental support.

Before privatization, the control of all television content was in state hands. The national administration did not develop any specific policy for the television sector following privatization. Although local governments have provided some support to this industry—for instance, local authorities issue film permits—the pre-eminent role has corresponded to broadcasters and public-private agencies.

Public and private universities and other higher-education institutions have updated communication, film, and media programs to incorporate the requirements of the television industry. Private institutions such as Escuela de Arte Multimedial Da Vinci, and TEA Imagen have pioneered the creation of new career programs in television production, digital editing, animation, and special-effects design.

7.3 Wine (Case III)

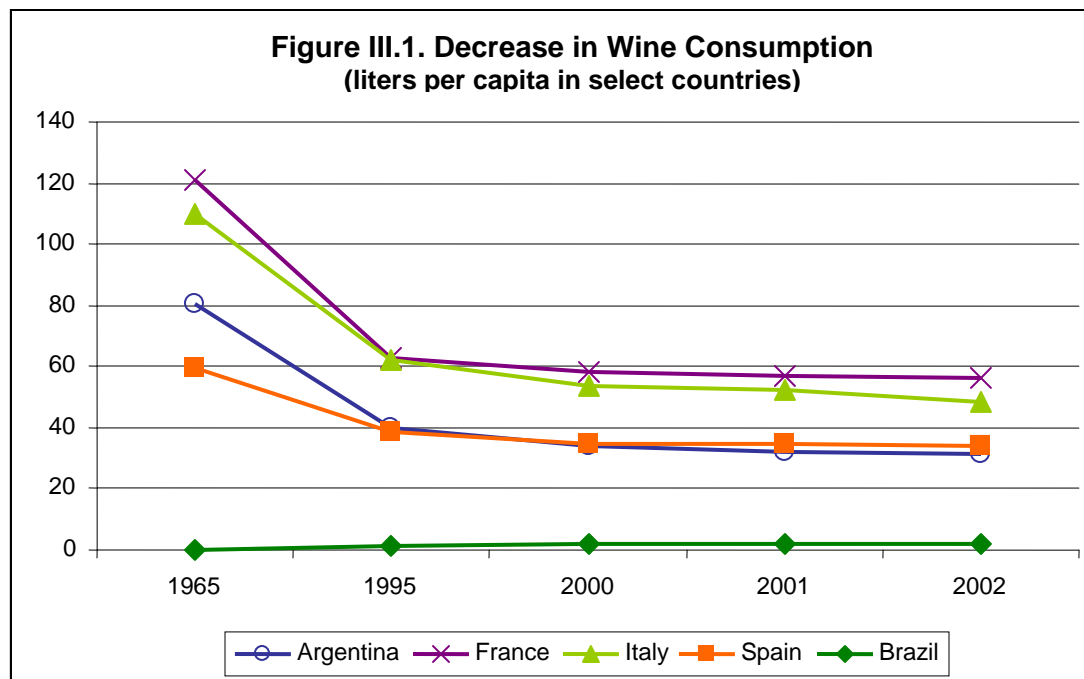
The emergence of a new type of fine wine in the 1970s offered an opportunity for wineries in Argentina to pursue the export of such products rather than dedicating themselves largely to the production of table wines for the domestic market as they had done in the past. The tastes of these new wines were radically different from those of traditional fine wines. To meet the growing demand for this type of wine, wineries would have to implement new techniques for growing the grapes, making the wine, and commercializing their products. Many of these techniques were pioneered by newcomers in this industry in countries like the United States and Australia. Consequently, wineries throughout the world that adapted these techniques came to be known as “new world” producers even when they were located in countries that were traditional producers of wine. New world producers distinguish themselves from their “old world” counterparts by their scientific approach to the growing of grapes and the making of wines.

Wineries in Argentina captured part of this market for new-world wines by adopting a scientific approach to winemaking. Initially, there was a high degree of uncertainty as to whether Argentine wineries could actually make this transition since no one in the industry had any experience with this approach to winemaking. Nevertheless, Nicolas Catena Zapata was the first to prove to others in the industry that it was possible. As we will show, the real boom in exports of wines from Argentina occurred in the late 1990s after Catena Zapata demonstrated that it was not only possible to produce a new style of fine wine in Argentina, but also to sell it on the world market.

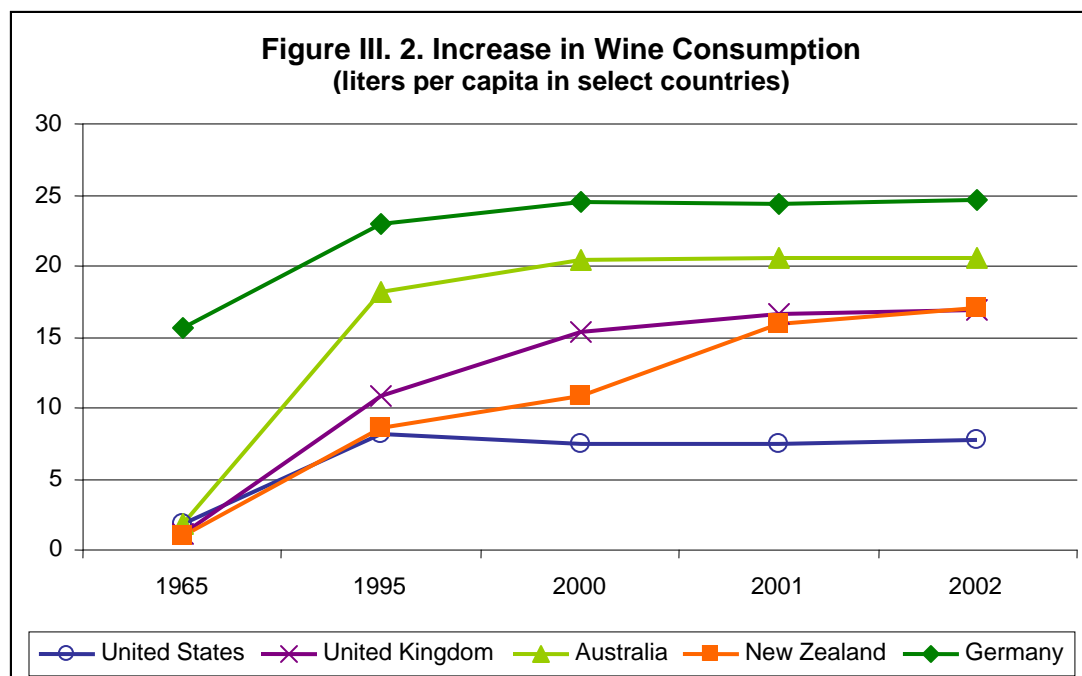
7.3.1 International Trade

Starting in the 1970s and throughout the 1980s, world consumption patterns shifted away from lower-quality wines toward beer or higher-quality wine. Traditional wine-consuming countries such as France, Italy, Spain, and Argentina saw large declines in overall per capita consumption, but this was also accompanied by a substantial increase in the consumption of fine wines as some consumers of traditional wines started consuming fine wines while others switched to other alcoholic beverages. Figure III.1 shows the general decline in the consumption of wine across these countries. At the same time, new consumers of wines emerged in countries such as the United States, Australia, and New Zealand. Consumers in these countries tended to consume fine

wines made according to new-world criteria. Figure III.2 shows wine consumption in these countries over time. In particular, the United States and the United Kingdom became very large markets for wine. Consumption in the former grew from 1.1 liters per capita in 1965 to 16.9 liters in 2002, while consumption in the latter grew from 1.8 liters per capita to 7.7 liters over the same period. Wine consumption in both countries increased among people who were previously consumers of other beverages.



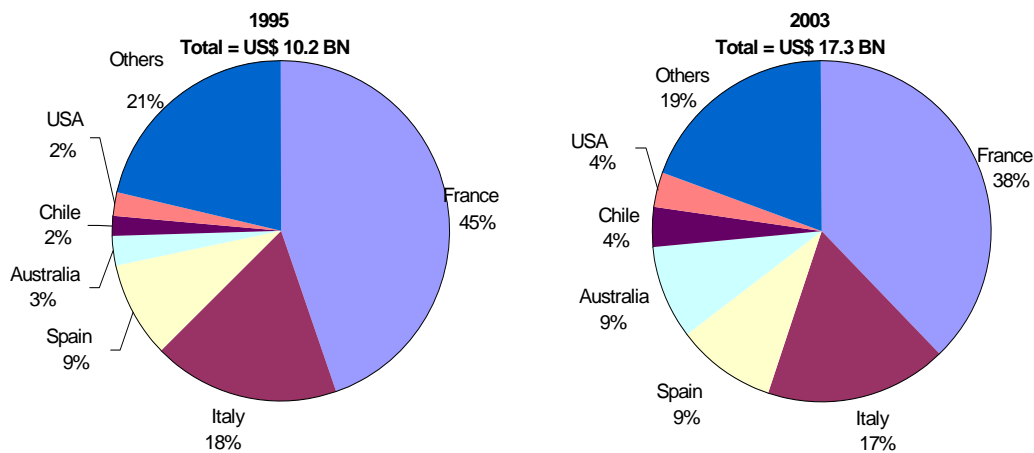
Source: FAOSTAT database.



Source: FAOSTAT database.

As a result of differences in consumption patterns and the emergence of new-world wines, the international production of wines has shifted, providing new-world producers with a larger market share. This shift has continued even during the past decade as old-world producers continue to lose market share to those using new-world techniques. Figure III.3 demonstrates the loss of international market share by traditional wine exporters. Traditional producers such as France and Italy have lost market share to new-world producers such as Australia, the United States, Chile, South Africa, and Argentina. It is particularly important to note that France's share of worldwide wine exports dropped 7 percentage points between 1995 and 2003, from 45 percent of the world market to 38 percent. This occurred even as some producers in France began embracing new-world ways of producing wine. It is also interesting to note that the market-share percentages of both Chile and the United States, two new world producers, doubled. Each country saw its share of the world wine market increase from 2 to 4 percent. The largest wine importers are the United Kingdom, the United States, Germany, Japan, and Belgium, in that order. The first three accounted for more than 50 percent of all wine imports in 2003.

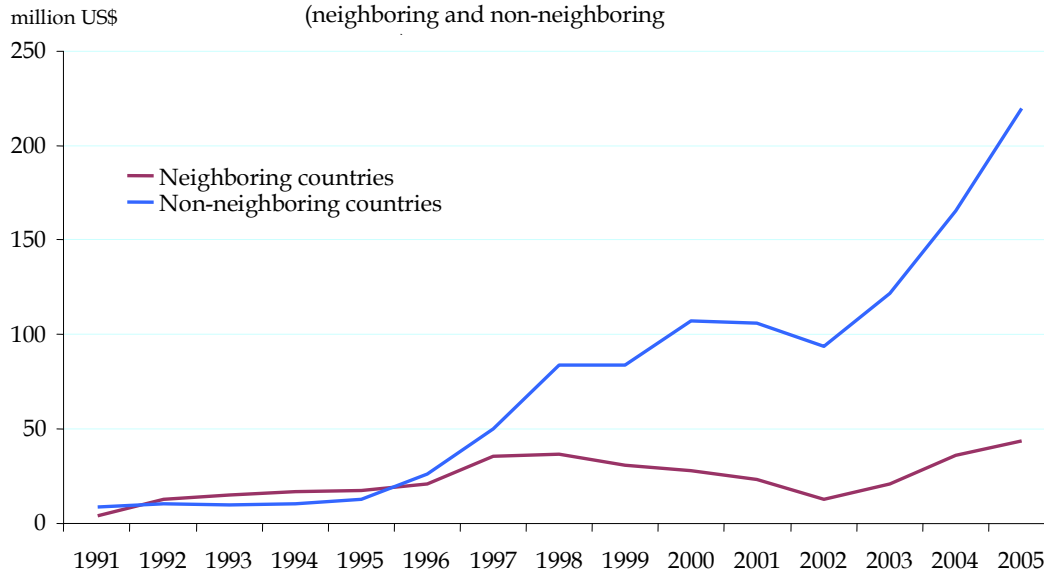
Figure III.3. Market Share of the Wine Industry by Countries



Source: FAOSTAT database.

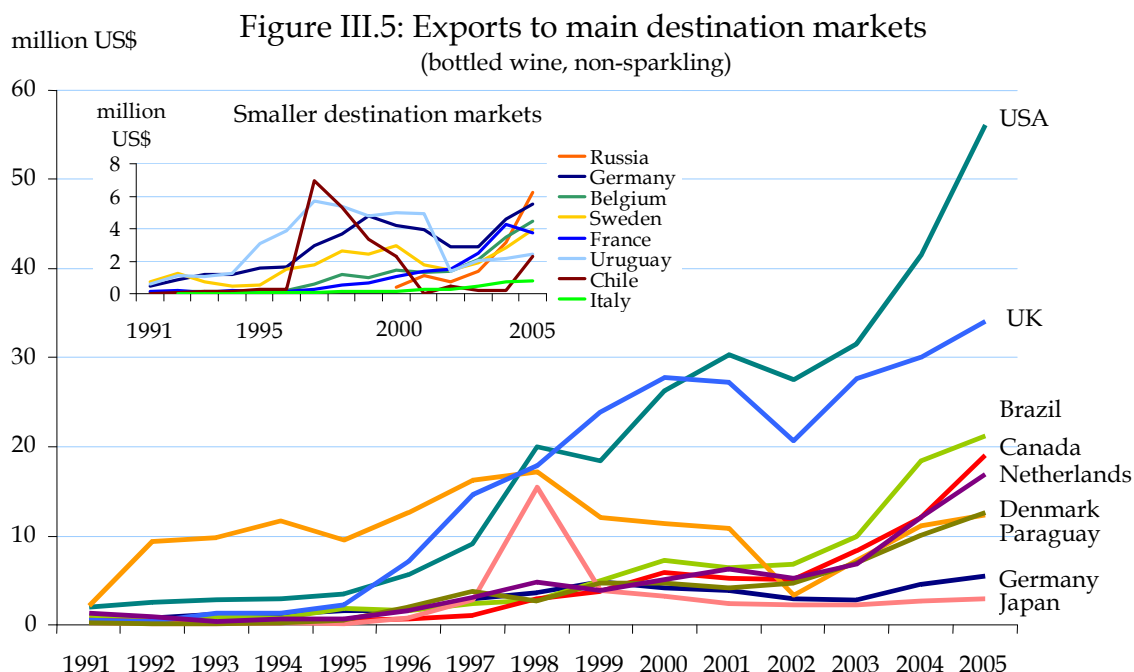
Argentina has been a large-scale producer of wines for decades, but production was mostly for domestic consumption, though exports of table wines and grape presumably reached neighboring countries years. Only in the 1990s did wine exports begin to represent a substantial fraction of sales in this industry. In 1991, Argentina exported US\$20 million of bottled and bulk wine. This figure has grown almost 15-fold since then, reaching US\$299 million in 2005. Figure III.4 charts Argentina's exports of bottled wine, broken down into exports to neighboring and non-neighboring countries for 1991 through 2005. Total exports of bottled wine grew at an average annual rate of 23.8 percent over this period, with most growth occurring in the late 1990s and after 2003.

Figure III.4: Argentine wine exports
(neighboring and non-neighboring)



Source: National Institute of Wine Production Database.

While exports to all markets have grown, the figure shows that most growth has come from exports to non-neighboring countries. Figure III.5 displays foreign sales of bottled, non-sparkling wine to Argentina's main destination markets. The largest share of export growth has come from sales to the United States, the United Kingdom, Brazil, and Canada. Exports to these countries have grown steadily since the mid-1990s. Exports to Germany and Japan, which are large wine importers, grew mostly in the late 1990s and have remained relatively constant since. Exports to a number of smaller markets are also growing. The scope of countries to which Argentina exports wines has also grown, from 41 destinations in 1991 to 103 in 2005. Exports to neighboring Paraguay, an important export market in the early 1990s, did not grow during the same period, while exports to Uruguay grew during the mid-1990s but have since declined.

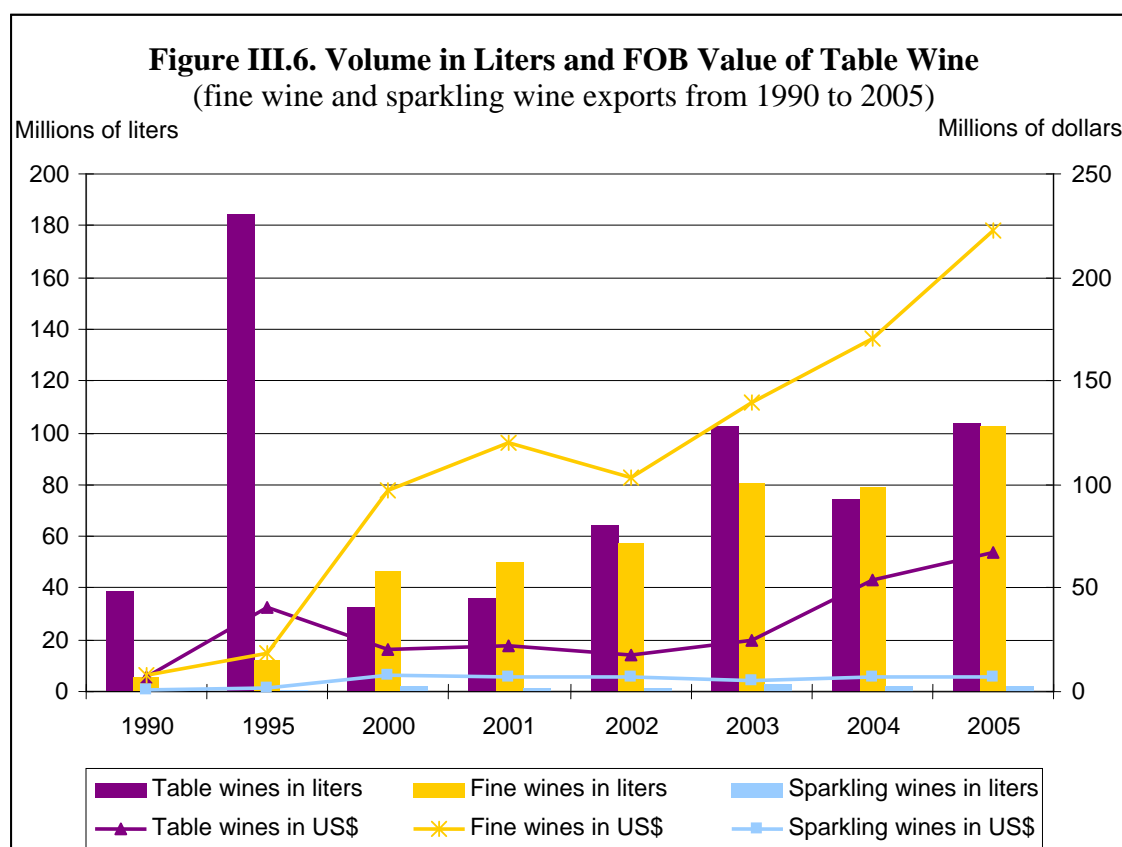


Source: INDEC (National Institute of Statistics and Census of Argentina).

Argentina is currently the fifth-largest wine producer in the world by volume, after France, Italy, Spain and the United States, and ahead of Australia, South Africa, Germany, Chile, and Portugal. Although domestic consumption has declined during the past few decades, it still accounts for a substantive part of overall consumption. As explained below, export growth was driven almost entirely by upgrades to the supply side of the industry. Total wine consumption in the domestic market declined steadily from 67.6 liters per capita in 1981 to 33.7 liters in 2003. The decline has been entirely due to a lower consumption of table wine—consumption of fine wine grew from 6.5 liters per capita in 1981 to 10.2 liters in 2003.

As shown in Figure III.6, wine export growth since 1995 has been driven by exports of fine wine—export values grew from US\$103.4 million in 2002 to US\$224.0 million in 2005, a growth of 217 percent in three years. Table wine exports also increased over the same period, but lost ground to higher-quality wines: table wine accounted for roughly half of export value in 1990, but barely more than 20 percent of total value in 2005. Table wine exports spiked in 1995 and immediately afterward, due to harvest loss in Spain. Fine wines also displaced table wine in terms of volume, growing from a very low share of total volume in liters to equaling the volume

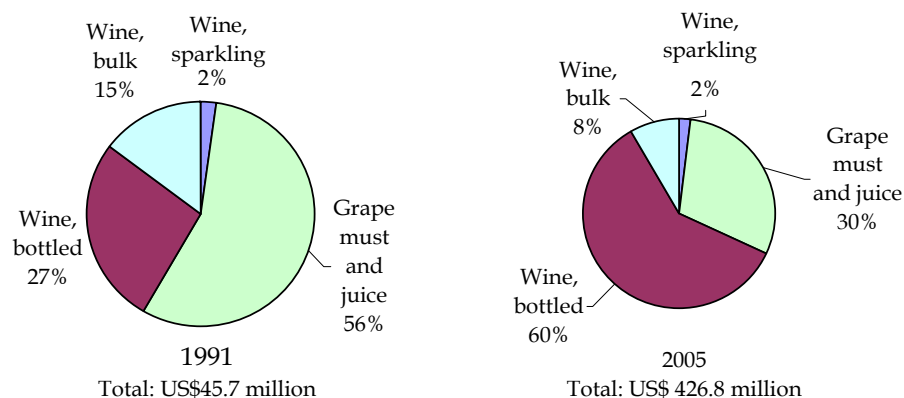
of table wine exports in recent years. Sparkling wines account for a much lower share of foreign sales, and even though exports grew in the late 1990s, they have remained relatively stable since.



Source: National Institute of Wine Production Database.

Figure III.7 breaks down exports of wine and wine-related products in 1991 and 2005. In addition to growth in the scale of exports, the figure shows that the bulk of exports shifted from the production of bulk wine, grape juice, and must to bottled wine. In particular, the share of grape must, grape juice, and wine in bulk declined from 71 percent of exports in 1991 to 38 percent in 2005.

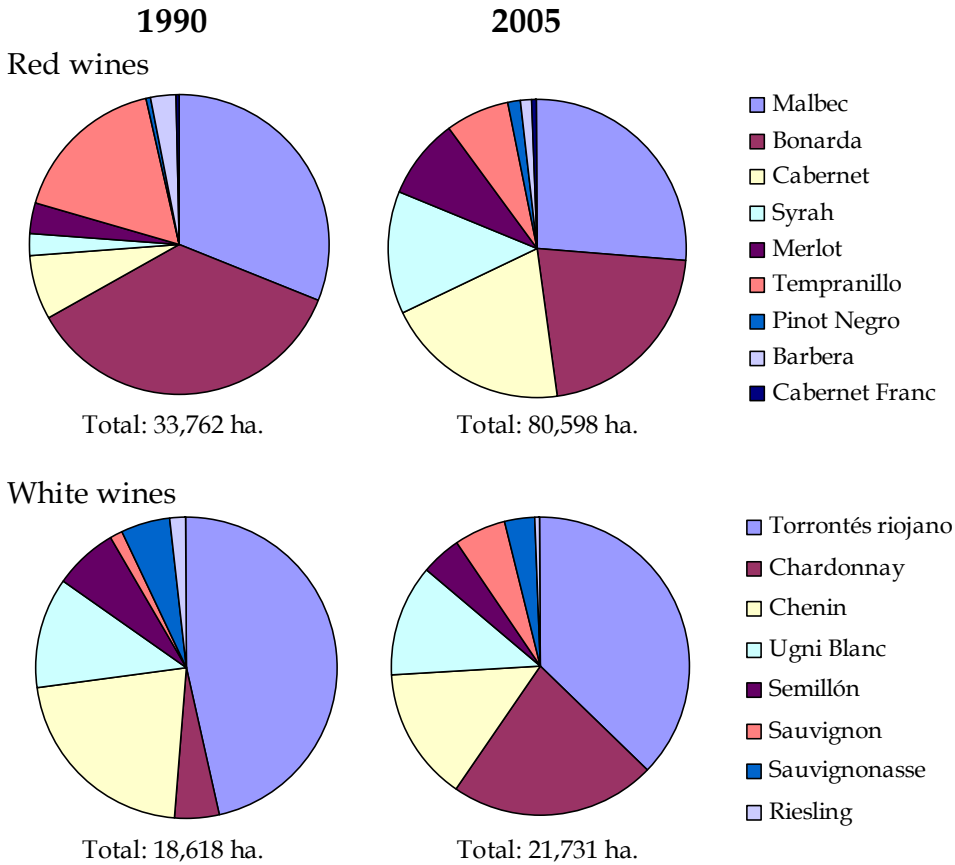
Figure III.7. Exports of Wine and Wine-Related Products for 1991 and 2005



Source: INDEC (National Institute of Statistics and Census of Argentina).

The decline in exports of bulk wine, must, and juice was accompanied by the planting of new types of grapes targeted toward the production of bottled wine; Argentine producers did not have to introduce new grapes to continue to produce bulk wines, grape juice, and must as the type of grape used is of little overall importance and new grapes can take up to five years before they can produce significant harvests. Many grape varieties, such as Cabernet Sauvignon, Syrah, and Merlot (red) and Chardonnay, Chenin, and Ugni Blanc (white), have been introduced to Argentina during the past couple of decades. While Malbec is one of the most traditional grapes used in the production of both table and fine wines in Argentina, it has recently gained recognition for its use in wines made according to new-world criteria. It is now known as the signature fine wine of Argentina. Figure III.8 shows the percentages of the types of grapes used for the production of white and red wines for 1990 and 2005.

Figure III.8. Types of Grapes Used in Wine Production

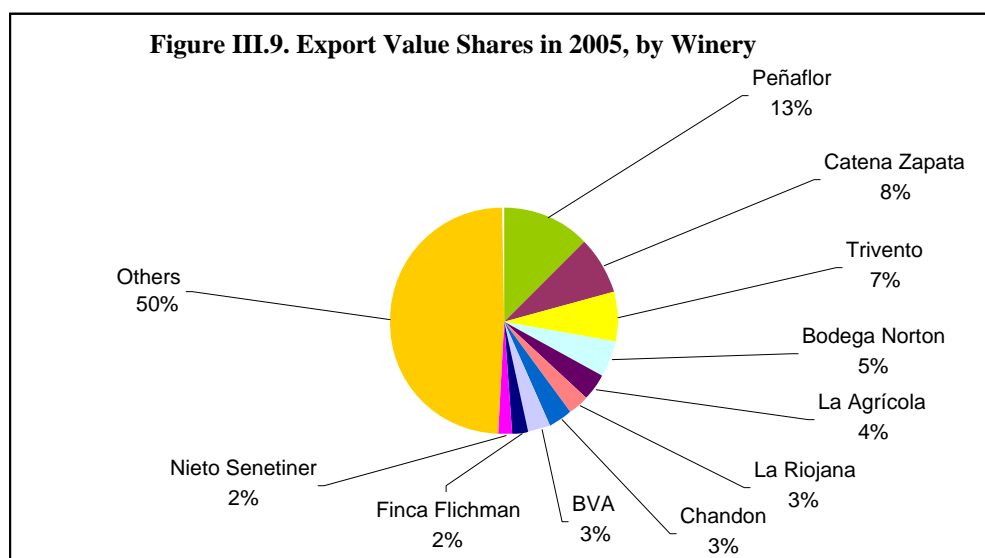


Source: Caucasia Wine Thinking, Annual Report 2006.

The wine industry's role as a lead export sector in Argentina is currently well established. More than 210,000 hectares of grapes were under cultivation in 2006, and 929 wineries are registered with the National Institute of Viticulture as currently operating in this industry. Not all of these wineries export their products. Those that do export are largely located in the provinces of Mendoza and San Juan. The province of Mendoza accounts for slightly more than 90 percent of wine exports, while the province of San Juan produces slightly more than 6 percent of this total.

Figure III.9 shows export shares by the current top 10 exporting wineries (in terms of export value in 2005). Peñaflor (Trapiche, Finca Las Moras, Michel Torino, and Santa Ana wineries) is the largest exporter, with 13 percent of total sales, while Catena Zapata (Bodegas Esmeralda) accounts for 8 percent of export value. Trivento (owned by Chilean winemaker

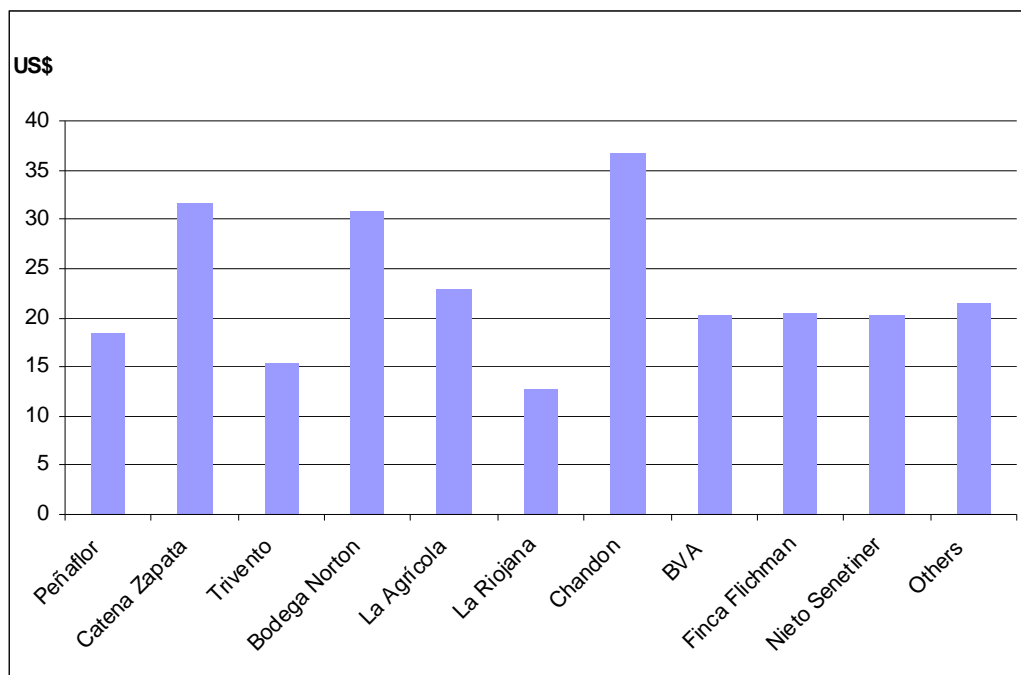
Concha y Toro) is the third largest exporter with 7 percent of foreign sales. The 10 largest wineries accounted for around 50 percent of total exports, while the remaining 50 percent is shared among approximately 265 smaller wineries.



Source: Caucasia Wine Thinking, Annual Report 2006.

Export shares mask substantial heterogeneity in terms of sales prices. Figure III.10 shows that Chandon has the highest average retail price at US\$37 per box, whereas Catena Zapata and Bodega Norton each sell for an average of US\$31 per box. Peñaflor and Trivento, which are two of the top three exporters in terms of value, have lower average prices per box of wine. Chandon's high average price follows from exports of sparkling wine: 28.2 percent of the company's export value in 2005 consisted of sparkling wine, all of it sold to Latin American markets. Sparkling wine accounted for less than 1 percent of exports in 2005 for all other wineries in Figure III.10.

III.10. Unit Prices by Vintner, 2005



Source: Caucasia Wine Thinking, Annual Report 2006.

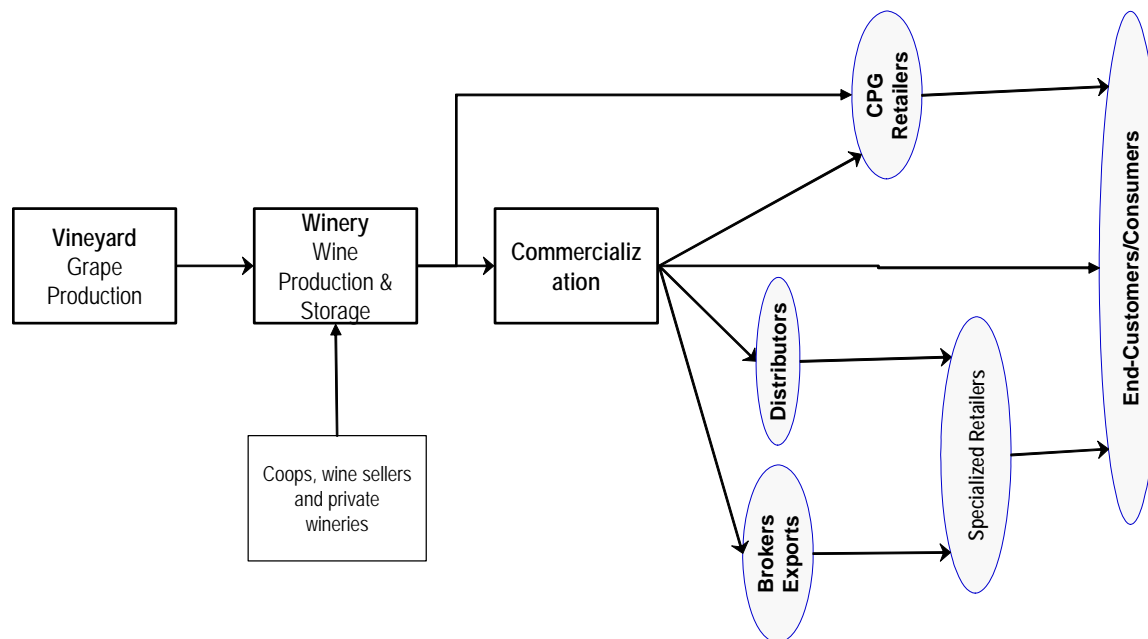
Of the top-selling wines, Catena Zapata owns two of the highest priced labels: *Catena* wines were priced at an average US\$64.41 per box in 2005, while *Alamos* wines were priced at an average US\$34.97 per box. Diageo's *Navarro Correas Colección Privada* averaged US\$44.86 per box, while Peñaflor's *Trapiche Roble* averaged US\$34.50. Smaller wineries also register high export prices such as those on the *Catena* label, for example Achaval-Ferrer, Cheval des Andes, Clos de los Siete, Finca La Anita, and Bodegas Caro, among others.

7.3.2 Value Chain of the Wine Industry

This section provides a schematic description of the process by which wine is made and sold. Figure III.1 illustrates the value chain of the wine industry in Argentina. Vineyards are depicted as the original suppliers, providing the key raw material for wineries. Wineries produce wine from grapes supplied by vineyards. Wineries also store wines, an integral part of the production process. The final role is the commercialization of the end product. Wines can be sold in bottles, tetra packs, or in bulk. Commercialization is performed by the winery or by third parties such as brokers or distributors. Smaller wineries tend to work with brokers while larger ones generally work with distributors. Some wineries do actually work directly with large retailers such as

supermarkets, but this is rather uncommon in this industry. Customarily brokers and distributors deal with retailers.²² Technically, there is the possibility for wineries to sell directly to end customers, but this is in fact rare in Argentina.

Figure III.11. Value Chain of the Wine Industry



Source: Authors' compilation.

7.3.3 Grape Production in the Vineyard

Grape farming may be independent of winemaking or vertically integrated in the winery. Independent grape farmers sell their grapes on the spot market or produce them under contract for specific wineries. Producers of higher-quality wines tend to exercise greater control over how their grapes are grown. They do so by either owning the vineyards or working closely with their suppliers through long-term contracts. Usually, they use a mixture of both strategies. They almost never own 100 percent of the vineyards that produce their grapes. Wineries producing lower-quality wines tend to buy their grapes on the spot market. Larger wineries that produce both higher-quality and lower-quality wines tend to produce the vast majority of their own grapes for finer wines and tend to buy the grapes for their lower quality wines on the spot

²² In many states in the United States, there is a three-tier system requiring wholesalers to be independent from importers, so the distribution role is divided between these two agents. U.S. regulations also prevent many domestic wineries from selling directly to consumers.

market. The spot market for grapes grown according to new-world standards is rather limited, as quality is not easily verifiable in that market and hence is not paid for.

High-quality grapes are the critical component of high-quality wines. Grape quality depends on the plant and on *terroir*, the particular soil and general climate of a region. Hence, the location of grape production is a key determinant of wine quality. Although location can affect climate, variations in rain and solar radiation from year to year can affect quality. Growers can control for insufficient rain by irrigating crops, but they cannot control for excess rain or solar radiation. In recent years, enologists have begun working more closely with agronomists to better select the locations and conditions under which grapes are grown. This type of cooperation is not limited to vertically integrated firms, but also occurs between independent suppliers of grapes and wineries. For this industry, one of Argentina's natural assets is the fact that its soils can accommodate a wide variety of grapes as it has vast expanses of territory suitable for the production of high-quality grapes. This provides Argentine wineries with a great diversity of potential products.

Suppliers of grapes for high-quality wine have to coordinate production closely with potential buyers. Wineries producing high-quality wine require specific grapes and growing conditions. Consequently, many wineries producing lower-quality products do not want to wait until they are ready to make their wines to actually buy their product. They generally prefer to find their suppliers before harvesting actually occurs. Negotiations between these buyers and sellers are complicated by the fact that it is difficult to discern the quality of a grape before it is actually harvested. A grape that appears to meet certain levels of quality before harvest can diminish in quality by the time it is harvested. This decline in quality can occur through what buyers often claim is the improper use of fertilizers, the application of too little or too much irrigation or too little or too much pruning. Buyers and sellers of grapes often differ with respect to what actually should be done. Some buyers suspect that a producer will not do what is necessary after a price is set before harvest, while some sellers believe that buyers are trying to unjustly lower the price they are willing to pay. This problem is complicated by the fact that quality can actually vary within the same vineyard. Hence, buyers have to take samples from a variety of locations in the same vineyard when evaluating grapes. Suppliers of grapes are reluctant to cancel such contracts because the spot market does not generally sell grapes of higher quality. Hence, suppliers of grapes are subject to the hold-up problem.

7.3.4 Wine Making

The process of making wine begins with a careful selection of grapes as they are harvested. This selection first occurs in the fields with a manual inspection of every individual bunch of grapes on each vine to see if it is suited to be harvested. Then the grapes are either passed over a conveyer belt for further sorting or are put directly into a grinder from where they pass to stainless-steel tanks. Grapes destined for lower-quality wines are sometimes harvested by machine rather than by hand. Such grapes do not go through the selection process on a conveyer belt. After grapes are selected, they are passed into stainless-steel tanks in which the fermenting process occurs. After the pre-fermentation process is complete, grapes are passed through numerous presses to separate the residuals of the grapes from the juice. The juice is then put back into a stainless-steel tank for the fermentation process to continue. The fermentation process is nothing more than a chemical process in which the natural sugar of the grapes is turned into alcohol as gas carbons slowly raise the temperature of the must in the container in which wine is being made. The wine is then passed from the stainless-steel tanks into oak barrels, or is directly bottled by machines that can bottle up to a few thousand bottles per hour. Smaller producers do not have to own their own equipment, as mobile bottling machines are readily available for rent.

Traditional wineries producing table wines had to upgrade their winemaking processes and equipment in order to start producing high-quality wines. To produce high-quality wines, wineries need refrigeration systems, grinding centrifuges, numeric presses, pumps, stainless-steel containers, oak barrels, filters, fractionation equipment, and bottling equipment. Although the first fine wineries that emerged in Argentina had to buy all the equipment for the processing and aging of grapes from different suppliers, there has recently been a shift toward wineries buying all the equipment they need for a new establishment from a single supplier who helps with the installation of the equipment. These suppliers are usually foreigners who can offer better financing than what the owners can generally find in Argentina. This development has dramatically impacted national suppliers of winery equipment. Nevertheless, there are some producers of equipment in Argentina that import most of the components and produce tanks or sorters customized to the needs of their particular clients.

7.3.5 Wine Commercialization, the Distribution Channel

The manner in which fine wines are sold differs from the way in which table wines are put on the market. Although both types of wines can be sold either directly to retailers or through a distributor or broker, differences in the target consumer markets imply different sales and marketing approaches. While the former have to suit the general tastes of each particular market, the latter can be exported to practically any country. Retailers purchasing fine wine directly from wineries have to ensure that each particular wine will be appealing to a segment of consumers. In contrast, price is the most important issue for retailers buying table wine. A common practice in the table wine market is for distributors to purchase generic (unlabeled) bottles of table wine and apply their own labels. Whereas country of origin is not important for table wines, bottles of fine wine have to specify not only the winery and country of origin, but often also the region where the wine is produced.

7.3.6 History of the Argentine wine industry

Historically, Argentina was one of the largest per capita consumers of wine in the world. In the 1940s, however, the production of fine wines made in the old-world style began to be replaced by the production of less-expensive wines made with the same techniques. This shift was driven by the growth in internal consumption for such wines. In essence, the industry remained focused on producing these types of wines for the internal market until the 1980s, when some firms began experimenting with new techniques. Until that time, few winemakers had ever traveled abroad and apparently little was known about how other world producers had been changing the way in which they were making their wines. The relative lack of imported wines further limited the ability of local producers to think beyond the ways in which they had been producing their wines.

The experiments of the 1980s initiated a shift from quantity back to quality, but with the application of new techniques. Although the consumption of table wines began to decline in the 1980s, economic conditions and policies designed to support this declining industry made it difficult for producers to adapt to this change. The economic policies of the 1980s produced not only hyperinflation and negative growth, but also price controls and output quotas, which actually led to the destruction of some highly valued grape stocks. At the same time, hundreds of wineries and thousands of small grape producers were being artificially sustained by state-owned

wineries. Other policies of the 1980s required producers to dedicate some of their grapes to the production of juice. This situation changed dramatically with the government of Carlos Menem and the liberalization and privatization policies that his government introduced in the 1990s. Inflation was curbed and price controls and output quotas were removed. For producers of wine in Argentina, the 1990s were a double-edged sword. While the economic stability and the convertibility plan helped the wineries by making imported machinery less expensive, the appreciation of the Argentine peso resulted in a substantial loss of competitiveness for Argentine wineries.

The importance of a stable economic climate for the wine industry becomes apparent when comparing Chile and Argentina during the 1980s. Although both countries were witnessing a decline in the consumption of domestic wine, Chilean producers started the conversion process a few years earlier and were able to realize significant exports by 1985—a time when Argentine wineries were still experimenting. A few wineries were exporting from Argentina during the apparent period of stagnation in this industry, but these exports were sporadic, one-time sales of wines produced for the domestic market using old world techniques. The uncertainties generated by unstable economic conditions in Argentina combined with state policies supporting existing wines made it difficult for wineries to consolidate their experiments and for this information to diffuse throughout the industry. The regulatory climate simply made this upgrade unappealing.

The growth of the Argentine wine industry was rooted in the transformation of the manner in which grapes were being grown and wine was being fermented outside of France in the early 1970s. The successful experiments that were taking place in California in particular led 11 judges, 9 of whom were famous French wine connoisseurs, to judge a Cabernet Sauvignon and a Chardonnay from the United States to be better than French counterparts at an annual wine tasting in Paris in 1976. This was the first time in the history of this event that French wines had not won this competition. In the past, it was commonly assumed that producers outside of France were only capable of producing lower-quality wines. This blind tasting effectively opened the door for what are now called new-world producers.

In order to make and export this new type of wine, Argentine wineries would have to adapt a new export business model that required wineries to change the way they made and sold wines. Although a few wineries in Argentina were experimenting with new techniques for growing grapes and fermenting wine in the 1980s, the transition from the production of old-

world wines to the production of new-world ones gained momentum in the early 1990s, culminating in the entrance of large foreign wineries to this market toward the end of the decade. The dynamic growth of this industry from the 1990s to the present can largely be attributed to producers who successfully made this transition. The increase in the number of vineyards dedicated to the production of fine wines is evidence of a shift from growing grapes for old-world wines, to growing them specifically for the production of new-world wines. In 1990, only 20 percent of vineyards were growing grapes for the latter category, but by 2001 this number increased to 43 percent. The real surge in the industry occurred after the publication of an article in the January 1996 edition of the *Wine Spectator* (the most prestigious trade magazine in this field in the United States), which claimed that there were only 10 good wineries in South America: 9 in Chile and 1 in Argentina. This one winery was Catena. By the end of the 1990s, Argentine wines began gaining recognition as more of them were being evaluated by the *Wine Spectator*. As can be seen in Figure III.4 above, exports in this industry began to grow rapidly after the crisis of 2001/2002. Wineries that had upgraded their manufacturing equipment during the 1990s now had the opportunity to introduce their products to international markets, enjoying the advantage of a favorable exchange rate. After this crisis, a substantial number of Argentine wineries began to travel abroad to trade fairs and international wine tastings. Some of these producers even started placing advertisements in the *Wine Spectator*.

Nevertheless, by the beginning of the twenty-first century, there were still a large number of wineries that had not made the transition to the production of new-world wines. In order to address the lack of quality wines available for export, top producers—together with researchers from the National Institute of Agricultural Technology (INTA)—formed a strategic plan for the industry in 2000 to develop a systematic approach for analyzing international and domestic markets and a strategy for helping lower-quality producers to upgrade their products to meet new-world standards.

Most of the large new-world exporters in this industry are constantly experimenting with new techniques in new regions. Recently, there seems to be a trend for grape producers to move to higher altitudes. Changes in altitude normally produce dramatically different results. Much still has to be discovered as to how such grapes grow under different conditions. Many producers are actually experimenting with traditional Malbec grapes at different altitudes. Such

experiments are necessary for winemakers to be able to continually develop different types of wines.

7.3.7 Domestic Business Model versus Export Business Model

The transformation of Argentine wineries required these companies to face uncertainties regarding not only how grapes were to be grown and wines were to be made but also the manner in which these new wines would be sold abroad. In essence, they would have to apply scientific rigor to activities that they had previously been undertaken solely on the basis of traditions and accumulated experience within the winery. These old methods had to be abandoned and more scientific methods developed because the older methods did not allow companies to produce the type of wines being demanded by the emergence of a new class of wine consumers. This transformation was necessary because the market for traditional wines was declining and French wineries were still considered to be the only ones capable of producing traditional fine wines.

Consumers of new-world wines wanted wines that were more aromatic and lower in alcohol content than previously available wines. The only way to make such wines was by introducing techniques in the vineyard and in the winery that had been developed by new-world producers, mostly in Australia and the United States. In order to succeed in this market, Argentine producers had to adapt these techniques to conditions in Argentina. This transition proved difficult since wineries had to conduct experiments to see exactly what type of grapes were suitable to the climate and soil of specific regions; many mistakes were made as the transformation of this industry was taking place. There was less uncertainty surrounding the fermenting and aging of wine, as it largely involved importing the proper machinery and paying careful attention to each stage of the fermenting and aging process. The challenge in this area was introducing scientific rigor to this process.

Until the 1990s, Argentine wine exports were limited. Wineries that did export merely sold products designed for the domestic market abroad. These wines were not tailored to the tastes of foreign customers. This was a fairly common practice throughout the world until 1976, when wineries from the United States demonstrated that new-world techniques could potentially allow almost any winery to compete with its French counterparts. Until the 1990s, Argentina devoted few resources to exporting, choosing to take advantage of sporadic opportunities rather than seeking a systematic manner for penetrating new markets. Market research, for example,

was practically nonexistent, since wineries would simply try to sell their product in a particular country without attempting to actually understand its market. In general, wineries were focused on the internal market, viewing exports merely a way to diversify sources of income rather than as an activity that needed a specific strategy.

While earlier exports were largely sporadic sales of existing products, current exports are the result of specific efforts to penetrate foreign markets by upgrading quality and customizing wines to meet the general criteria of “new-world” wines. If wineries could successfully make such wines, international markets could become the focus of their business rather than just a means of diversifying it. One foreign market could actually become more important for a producer than the domestic market.

Commercialization of wines abroad would pose the greatest challenge for wineries since it required them to establish channels of commercialization, and also required them to convince the world that Argentina was indeed capable of producing high-quality fine wines made according to new-world standards. The new export business model required firms to develop long-term relationships with distributors. This strategy was radically different from the manner in which Argentine producers had exported in the past. Traditionally, Argentine wineries did not develop coherent strategies for foreign markets but rather took advantage of sporadic, one-time business opportunities. This style of exporting did not require producers to actually take the tastes of consumers into consideration, nor did it require them to develop long-term relationships with suppliers.

Product upgrade. New-world producers target consumers used to consuming lower-quality wines or other alcoholic beverages. These consumers generally do not like traditional fine wines made in the old-world style, since these wines are too bold; their alcoholic content is higher than what these consumers are seeking. They are looking for wines that are lower in alcoholic content and more aromatic, fruitier and fresher—namely, the type of wines produced by new-world producers. Using different varieties of grapes and different techniques, wineries can produce a great variety of wines that meet these general parameters. But this presents a challenge as well as an opportunity for wine producers since they have to ensure that there are enough consumers of the type of product they are producing to justify its production.

One important consideration is that tastes vary significantly across countries. A new-world wine that wins a prize in one country can be considered rough by consumers in another. In the end, wineries have to sell what they produce, and Argentina is particularly well suited to producing a great variety of wines since its soil can accommodate 28 different types of grapes. In this the country has an advantage over Chile, which is said to be able to grow only five different types of grapes.

In order to make a successful wine, firms have to change not only the way the grapes are fermented, but also the manner in which the grapes are grown.

New methods for grape-growing. The production of new-world wines starts in the vineyard, not in the winery. When producing new-world fine wines, wineries have to pay careful attention to the type and quality of the grapes they are using. First, they have to be relatively certain that the grapes can be used to make the wines desired by their customers. Then, they have to ensure that the place where they grow the grapes is actually well suited to that particular vine. Agronomists have to investigate the chemical attributes of soils to understand what types of grapes are best suited to a particular area. Part of this process involves importing new grape varieties to determine which ones work best in what regions, taking into account the fact that there are significant differences in soil in the same region, and even between two plots of land located right next to each other. Consequently, agronomists and enologists have to have a solid understanding of chemistry in order to successfully analyze soils and determine what grapes are best suited to a particular area. Even today, vineyards are conducting new research on new terrain in order to improve the variety of wines they produce. They now understand why even a Malbec, which is a traditional grape widely used for the production of wine in Argentina, tastes different when planted in different areas. This new way of growing grapes presents a radical break with tradition as it requires wineries to deal with a vast array of uncertainties about how small differences in *terroir*—the combination of soil and climate—can affect the tastes of grapes.

Climatic differences also have a profound impact on the quality of grapes produced. Grapes for new-world wines are best grown in arid regions close to mountains with an adequate supply of water. Agronomists have to pay careful attention to how much water their grapes receive. If they receive too little water, vines can die. However, if they receive too much water, grapes will not be suited for the production of new-world wines. Yields from vineyards operated according to new-world standards are lower because agronomists intentionally limit the amount

of water these grapes receive and trim the vines so that grapes are smaller and flavors are more concentrated. Old-world producers of lower-quality wines seek to provide their grapes as much water as possible so that they will grow large and provide higher yields.

New-world enologists closely observe the progression of the growth of the grapes to be used. If needed, the enologist, usually working together with an agronomist, will manipulate the progress of grapes by irrigating or fertilizing, though fertilization has to be strictly controlled as it can alter the taste of a wine. One of the most critical decisions that can determine whether a wine will fetch a high price in the marketplace is when to harvest the grapes, since enologists cannot make up for mistakes at this phase in the production process. This problem of developing a successful wine is complicated by the fact that techniques that work well in other countries may not work in Argentina, and even in Argentina, techniques that work in the region of Mendoza, for example, may not work in San Juan.

Although old-world producers of finer wines realize that their wines are better when they receive less water, they do not pay careful attention to irrigation. In fact, some of these producers are actually located in regions with varying amounts of rainfall from year to year. Hence, the quality of the wine varies from year to year. This is largely the case for producers of old-world wines in France.

The minimal variation in the climate in some regions of Argentina, such as Mendoza, helps wineries there maintain consistent quality from year to year. Conditions in these regions are arid, but generally there is ready access to water from nearby mountains. In addition, new-world producers try to ensure that the conditions of the *terroir* in which their grapes are planted are the same from year to year. In dryer years, they irrigate more, for example. Clearly, they cannot control the fact that some years, there are relatively heavy rainfalls even in arid conditions. But in the end, they try to make sure that the quality of their grapes is at least the same—if not better—from year to year.

Nevertheless, there are no recipes for the production of a good wine. Wines from different years are never the same. Enologists basically monitor the conditions under which their wines are grown and then see what type of wine they can produce from the type of grape that emerges from these conditions. There is always some variation. Although some observers contend that there are no variations in the climatic conditions of Mendoza, there are minor changes every year that can make a difference in the type of wine produced. In the past,

vineyards simply never paid attention to what would appear to be minor variations. Clearly, these variations are not as dramatic as what occurs in the traditional regions of France, but they are critical for the creation of fine wines.

Old-world producers do not conduct scientific experiments on soils to see if they can use different grapes. They simply plant the grapes that have been traditionally used in a particular region. Growers work based upon tradition without knowing why a particular grape works well in a particular region. Their focus is quantity instead of quality and therefore, they often irrigate their crops heavily to make their grapes grow bigger and produce greater yields. There are still a significant number of vineyards that produce grapes according to old-world standards, and they supply wineries that customarily also work according to these standards. The spot market for grapes that still does exist in Argentina is largely for such producers and suppliers. Producers of fine wines buy grapes on the spot market only for their lower-quality wines. The critical difference between producers of lower-quality wines and their higher-quality counterparts is the level of attention paid to the conditions under which the grapes they use are grown. Hence, it is not surprising that for lower-quality, new-world wines, companies tend to rely more on their suppliers and even buy some of their grapes on the spot market.

The level of uncertainty in the production of grapes for new-world wines is higher. Wineries have to work closely with independent vineyards in order to ensure that the grapes they grow are exactly suited to the wines that a winery wishes to produce. Some wineries deal with this uncertainty through vertical integration. Unlike their old-world counterparts, new-world producers have to ensure that the grapes their suppliers are growing suit the particular *terroir* of the region in which the supplier is located. In general, it is advisable for a winery to either work with a supplier who already has a vineyard suitable to the grape the winery wishes to produce, or to buy a vineyard with vines already planted in a region suitable to the grapes it wants to use. Planting new grapes is a long-term investment, since it takes five years after planting before a vine can yield the type of grapes that are really suitable for use. Yields are customarily less than half of what can be produced using old-world techniques, but the higher price of new-world wines makes up for it. The fact that wineries are looking for very specific grapes grown under particular circumstances makes it difficult for them to find the grapes they are looking for on the spot market. Nevertheless, the majority of new wineries begin by buying grapes from suppliers with whom they work very closely instead of planting their own. This provides them the

flexibility to change grapes and experiment before they actually decide what grapes they wish to plant.

Although most wineries begin by buying their grapes from independent vineyards, they generally end up buying their own land and planting their own grapes in order to reduce uncertainty and have stricter control over how the grapes are grown. Some suppliers can provide excellent grapes for two years but then fall short in the third largely because the supplier starves the vine of water for two years. By the third year, the vine has suffered irreparable damage and cannot produce the quality of grapes required. Some wineries in Argentina address this problem by working closely with their suppliers and providing them the training and supplies they need. Another strategy for addressing this problem is for a winery to simply rent a vineyard and take over its operation. Regardless of whether a winery decides to work closely with a supplier, rent a vineyard, or simply buy one, the critical difference between the new-world style of production and that of the old world is the close cooperation between agronomists and enologists. Close coordination between these two parts of the supply chain is critical for new-world producers to be able to produce the types of wine expected by consumers of this product.

New methods for winemaking. Although new techniques for growing grapes had to be tested and adapted to Argentina's climatic particularities, technologies and techniques for upgrading wineries were readily available in the 1980s. If firms could grow new-world style grapes, all that remained was for them to import stainless-steel tanks and 225-liter oak barrels. Naturally, they would also have to employ an enologist able to produce wine according to this new style. Although in many ways the actual manner in which wine is made has changed little with the introduction of new-world wines, the critical difference lies in the scientific approach to wine making.

As mentioned, above the production of wine actually begins with the selection of grapes in the field. This process is customarily done manually in Argentina, with workers checking each bunch of grapes to see if it is ready to be picked and if it is in the proper condition. Grapes destined for fine wines are then passed to a conveyer belt in which they are further sorted. At this time, twigs and leaves that happened to have been collected with the grapes are discarded. This inspection can be quite extensive. Some of the highest-quality producers in this industry have more than 12 people working on the same conveyor belt to properly select the grapes needed for a particular wine. Other producers can have five or six people working on the conveyor belt.

After this selection has been done, grapes are passed through a grinder; the resulting substance is called the *must*. This inspection process means that enologists have to pay careful attention to how grapes are actually selected. In the past, such careful attention was not necessary. Producers of lower-quality wines do not carry out such detailed inspection; they send their grapes directly to the grinder.

After the grapes have been ground, the must is then generally placed in stainless-steel tanks for processing. The must of grapes destined for finer-quality wines is lowered into these tanks in specially designed stainless-steel containers. The must of grapes destined for lower-quality wines is generally transferred to the tanks through hoses. Producers of finer wines do not use hoses because they believe the sucking process damages the must and affects the quality of the resulting wine. After a period of pre-fermentation in the tanks, the must is placed in a pneumatic press to eliminate all of the residuals of the grapes and leave a pure liquid. Then, the must is put into another stainless-steel tank in which the actual fermentation process occurs. Before the invention of such tanks, grapes were put in 5,000-liter oak barrels in which the prefermentation and fermentation processes occurred, with residuals being removed at the proper moment. The use of stainless-steel tanks instead of 5,000-liter oak barrels enables enologists to strictly control the temperature of the must during the fermentation process. Old-world producers did not use stainless-steel tanks and therefore attempted to control the fermentation process somewhat by placing the oak barrels in cool areas, usually underground.

Strict control of the fermentation process allows enologists to better shape the type of wine they produce. The temperature of the fermentation process determines not only the speed at which this process occurs, but also the taste of the wine. To further control the flavor of the final product, enologists can also introduce strains of bacteria to reduce the acidity of a wine. This process was unknown to old-world producers, yet is commonly used by their new-world counterparts to produce the smooth, lighter wines generally expected by their clients. Enologists have to pay careful attention to these details and adjust the temperature of these tanks on a continual basis. This type of control was unnecessary under the old style of making wine.

The fermentation process is triggered by yeast, which produces carbon dioxide and alcohol. Some new-world enologists actually introduce yeasts into the must as it is being fermented. In general, this is not required, since a natural yeast is already present on the skin of the grape. Fermentation can occur with this natural yeast, but the results are sometimes

unpredictable as they depend on the nature of the yeast present on the grape. Currently, some wineries are experimenting with the use of genetically modified yeasts as a means to gain even greater control over the fermentation process. Hence, enologists making new-world wines have to keep up to date on new developments so that they are able to compete with others that are making these advances. In the past, this attention to detail was not necessary as enologists did not exercise this type of control over the fermentation process.

Enologists can control the alcohol content of a wine by carefully measuring the sugar content of the grape to be used. They can use a saccharometer to determine the exact sugar content of a grape and thereby determine the exact alcohol content of the wine to be produced. As mentioned above, this is critical for new-world wines since the customers of these wines are generally looking for products with lower alcohol content. Naturally, if consumers change their tastes and start seeking wines with a higher alcohol content, enologists working according to new-world standards can adapt to this change by carefully selecting grapes that have a higher sugar content. Working with agronomists, they can actually change the way in which their grapes are grown so that they produce grapes that contain more sugar. Producers of lower-quality wines actually add sugar to the must in order to achieve a higher alcohol content. The critical distinction between new-world and old-world producers is the fact that old-world producers did not understand the exact chemical processes involved in fermenting wines. They knew simply that alcohol content could be raised by artificially adding sugar.

All wines are made from a mix of different grapes. Varietals—wines that carry the name of the grape on the bottle—have to be made primarily from the grape on the label. Wines made from a range of different grapes do not carry the name of a particular grape on the label. Nevertheless, enologists who produce high-quality wines pay careful attention to the mix of grapes they use in making their wines.

Customarily, new-world wines are kept in stainless-steel tanks for a few months after the fermentation process is complete. Lower-quality wines are generally moved to rubber-coated cement tanks so as not to occupy space in the relatively expensive stainless-steel containers. Wine can be stored in stainless-steel or cement tanks as long as desired by the enologist.

Lower-quality wines are generally sent straight from these tanks to bottles. Higher-quality wines are transferred to 225-liter oak barrels for at least a few months. The highest-quality wines can spend as long as 18 months in these barrels. This process enables the wine to

acquire some flavor from the barrel. Enologists carefully chose the barrels in which this aging process occurs. The barrels are generally French or American oak barrels that have been toasted to various degrees, ranging from light to medium to heavy toasting. The enologist selects the origin of the barrel and the degree of toasting based upon the type of wine s/he wishes to create. After this aging process is complete, the wine is bottled. It does not have to be shipped directly after this process is complete.

Marketing upgrade. The techniques for marketing new-world wines abroad are dramatically different from those previously used by exporters of old-world wines. In the past, wineries exported what they produced for the domestic market and did not focus on adapting their wines to foreign tastes. Today, wineries have to follow basic trends dictated by consumers in order to sell new-world wines on the global market. These trends are not very specific. Over time, customers have demanded wines that are less aggressive and easier on the palette. In general, consumers are looking for fruity wines that have at least a hint of oak flavoring; clearly, some consumers seek wines with other characteristics, but in general the current world market is dominated by demands for such wines. The goal of new-world producers is to work within these general guidelines to develop wines with very specific tastes. This task is complicated by the fact that consumption of the type of fine wines consumed varies over time because preferences for specific grapes and for general tastes vary over time.

Wineries often experiment with different grapes to capture specific niches within the market. However, they generally concentrate their business on producing one or more of the classic wines: Malbec, Cabernet Sauvignon, Chardonnay, Sauvignon Blanc, and Merlot. Syrah, a wine introduced by Australian producers, is a relative newcomer that is gradually becoming one of these classics. Even within these classic wine categories, enologists working with agronomists can create wines that have distinctive characteristics and tastes by using the same grapes from different areas and/or making wine in different ways as mentioned above. Minor changes in climate prevent even the same enologist from making the same wine year after year. Enologists must place wines within this general framework but also give them an individual flavor so they can surprise their clients every year with new, if subtle, notes in the wines they make. Enologists constantly taste each other's wines to try to decipher how the wines were made, even if they cannot reproduce those wines because of the different conditions under which the grapes are grown. Enologists must also listen to advice provided by their foreign sales representatives so

that they can try to adapt their wines as much as possible to trends in their target market(s). Ideally, these representatives would like to design a product and have an enologist produce it. Although enologists can adjust the attributes of their wines to different tastes, the limitations of their vineyards and *terroir* place significant limits on their ability to fully adapt wines to the specific attributes outlined by their sales representatives.

Producers of fine wines find it beneficial for marketing purposes to develop icon wines, a wine that sells for more than \$50 a bottle. Quite often, the production of these wines is not profitable because, despite their high price, the volume produced is customarily very low. It can be as little as a few hundred bottles. Yet, these wines give a winery exposure in some of the more important wine magazines such as *Wine Spectator*. Paradoxically, the average consumer generally does not like such wines, because they are radically different from the fine wines they usually drink. Nevertheless, the production of such wines by a particular winery is generally seen as a signal to consumers that it is a high-quality wine producer. Hence, the image generated by the creation of such wines can help to improve the sales of a winery's "lower-quality" wines. Therefore, wineries tend to first produce higher-quality wines and then move toward lower-quality brackets. Although this is more difficult than moving from lower-quality wines to higher-quality ones from the standpoint of production, it does provide a level of prestige to a winery that then customarily spills over into their other lines of wines. In essence, an icon wine serves as a driver to communicate the high level of quality of a winery's operation.

While the preferable strategy for wineries is to move from higher-quality wines to lower-quality wines, the evolution of the taste of an individual consumer of fine wines goes in the opposite direction. Consumers first buy the lower-quality wines of certain brands or countries that they know about, perhaps because of the reputation of particular wineries resulting from their icon wines. If the consumer likes these wines, s/he is likely to move to the more expensive wines from the same country or winery. Hence, the reputation of a particular country can prove critical for the sale of wineries from that country. At the time of purchase, consumers are faced with an extremely broad offering of wines from a wide variety of countries. There are good wines that do not sell because either the winery is unknown and/or because the country of origin is not known by the consumer to be a producer of fine wines. Although consumers like to try different wines, they face a high level of uncertainty when making their choice. Hence, they customarily base their choice on what they know about a particular winery and/or a particular

country. That is why country of origin is particularly important in this industry. The same is true for the region in which the wine is made. Wineries are generally interested in promoting quality within their region as they are aware the consumers often associate wines with regions. If the consumer drinks a bad wine from a particular region, they are less likely to drink another wine from that area.

Because country of origin is critical for consumers when selecting the wine they wish to drink, the quality of wines offered by wines from a particular country takes on particular significance. Quality should not be confused with taste. Consumers expect lower-priced wines to taste inferior to higher-priced ones. For example, they have a general idea about how a \$6 bottle of wine should taste. If the quality of the \$6 bottle of wine is lacking, consumers are not only less likely to buy a more expensive bottle of wine from the same winery, they may also assume that all wines from the same country are of lower quality than what actually may be the case.

Therefore, a winery's marketing strategy is a critical tool for convincing consumers that it can indeed produce high-quality wines. The same would seem to be true for countries. Naturally, countries and wineries have to make wines that live up to the reputation generated by marketing campaigns. Marketing can be conducted through channels such as advertisements in relevant trade magazines or even wider publicity campaigns targeting a broader audience. However, marketing also occurs when the product is actually consumed. Unlike the majority of products on a lunch or dinner table, wine and beer are some of the few that actually display a label.

Because the labels on wine bottles are a means of marketing the product that people are drinking, they are a critical component of a winery's marketing strategy. People often examine the label to learn about the wine's origin. Therefore, the label has to be attractive and must communicate key elements about the wine to the consumer. Consumers pay attention not only to country of origin, but also to the region of origin. They also expect to find a brief description of the wine describing its characteristics and perhaps some details about how it is made. If the wine is aged in oak barrels, this is generally mentioned as it is taken as a sign of quality. Like any piece of marketing in this industry, the wine has to meet the image portrayed on the label. At the same time, wineries basically try to convince the consumer that they are drinking something that is actually more expensive than what they paid. Naturally, wineries have to ensure that labels do not peel off the bottle. This is a sign to the customer that the quality of wine is lower than what the winery is trying to communicate. This was a common problem for the wine industry that has

been resolved simply by wineries paying more attention to this issue and making minor corrections in how labels are applied.

The commercialization of Argentine wine internationally is dramatically different from what it was when wineries focused solely on the domestic market. Today, wine producers have to develop the appropriate channels to distribute their wines internationally. International wineries that open branches in Argentina have a particular advantage in this area as they can leverage their existing international commercialization channels to sell their wines produced in Argentina. Wineries that are not owned by foreign companies face the challenge of creating their own network of international distributors. The majority of foreign subsidiaries seem to use the existing distribution networks of their international owner.

Domestic wineries that are not at least partially owned by foreign companies have two means for selling their wine abroad. They can work through an intermediary that sells their products to different markets throughout the world, or they can have an agent in each country to which they are exporting. The agents can be importers, consignees, or supermarkets. Small and medium-size wineries tend to use intermediaries, while larger players tend to have their own agents. Sometimes foreign consultants help establish connections for Argentine wineries to sell their products abroad. Commercialization through operators usually involves firms bearing some costs for marketing and distribution in the country to which they are exporting. While table wine producers do not have to necessarily invest in marketing their wines, managing a customer's perceptions becomes more critical for finer wines. Many of the big distributors want companies to provide them with a wide variety of wines. So it is not worthwhile for wineries to concentrate on the production of just one wine.

Distribution channels are increasingly consolidating. This is especially true in the United Kingdom. Like distributors, supermarkets also want a large variety of products to offer their clients. One of the challenges that wineries working for such distributors face is meeting the strict controls for quality demanded by these clients. Sometimes these distributors send their own controllers to check the operations of the wineries that supply them. Having a well-made product is not enough to ensure that a distributor or a supermarket will buy it. These companies are increasingly demanding a high quality of service from the back offices of wineries. Supermarkets and distributors demand that wineries meet their particular needs and consistently fulfill their orders. If they find that a winery is unable to do so, they are ready to switch to another winery.

Too often, exporters in Argentina overlook the fact that they have to support their sales. The product is not the only thing that they are selling. They are also selling services to their clients. These issues are particularly important for large producers of lower-quality wines since logistical considerations can prove to be quite complicated for wineries focused on volume sales. This issue is less important for average-sized producers of new-world wines that do not have to sell large volumes.

The wineries that export to the United States tend to work with one distributor that manages the sales of their wines throughout the country. Laws on alcohol consumption in the United States vary from state to state, so it is nearly impossible for a winery in Argentina to directly conduct its sales in that country. As for England, there is an important difference between off trade (sales in supermarkets) and on trade (sales in restaurants and bars). Wineries that wish to sell in volume have to sell their wines off trade. Although most wineries seem to work through wholesalers, some have managed to sell directly to supermarkets.

7.3.8 Pioneer

Nicolas Catena Zapata was the first person to create a new-world wine in Argentina *and* successfully sell it abroad. In 1992, he sold his first bottles of fine wine abroad for a retail price of US\$15 dollars a bottle, making him the first to reach this milestone for Argentina. Even Chilean producers had been unable to sell wines at this price on international markets. Thus, Nicolas Catena Zapata was able to set the benchmark not only for the Argentine industry, but also for rivals in Chile. He effectively demonstrated that it was possible for Argentine producers to reach this level of quality. Shortly thereafter, other Argentine wineries followed in his footsteps. In the meantime, Catena continued to work on improving the quality of his wines. In 1997, he was the first Argentine wine producer to sell an icon wine, fetching a price of \$80 in the United States. In this sense, he was pushing the industry to reach even higher benchmarks after his initial success in 1992.

In order to do all this, Nicolas Catena Zapata had to transform his traditional old-world style winery and establish a new network of distributors who had previously not known that an Argentine winery was capable of producing wines that would be appealing to new-world consumers. The actual techniques he used to transform his vineyards and change the way his winery developed wines came largely through the diffusion of techniques from other new-world

producers. He established his distribution network by traveling and convincing distributors and leading journalists that his wines were indeed worth the price of some of the higher-quality wines in the world.

Nicolas Catena Zapata has strong roots in the wine industry of Mendoza. The Catena family first planted a vineyard in Mendoza in 1902 with the goal of providing wine for the domestic market. Over the years, the family was able to increase not only the number of vineyards it owned, but also the size of its winery, making it one of the largest and most prosperous in Argentina. Nicolas Catena Zapata took control of the family business in 1963, ushering in an expansion and diversification of the firm. By 1976, the winery was producing more than 20 million bottles of wine, making it one of the world's largest wineries. Today, Catena has 2,000 hectares of vineyards and an annual production of 30 million liters. In addition, Bodegas Catena Zapata owns parts of the Escorihuela, Sacon, Esmeralda, and Rutini wineries.

When he took over his family's winery in 1963, Catena Zapata was studying for his Ph.D. in economics from Columbia University in New York, though he traveled back to Argentina on a regular basis to continue to run the family business. His experience living in the United States provided him with intimate knowledge of the how to do business in that country.

By 1979, Catena Zapata had transformed his company into the leader in the Argentine market. At that time, the company was selling 38 percent of the wines consumed in Argentina, and was the leader in all categories of wine except for one in the medium-price range. In early 1980, Catena Zapata decided to sell off his lower-quality wineries and focus only on the production of high-quality wines. When he sold these wineries, he was not thinking about exporting. He simply sold them to take advantage of overvalued asset prices in Argentina at that time. Like many other old-world producers at that time, he did not believe that it was possible for Argentine wines to compete with French fine wines. There was a common belief that only French *terroir* could produce such wines. But the blind tasting of 1976 had shown otherwise. Catena Zapata was aware of this event, but he did not realize that this tasting was the impetus for a transformation of the world's wine industry.

In the latter part of 1980, he accepted a position as a visiting professor with the Department of Agriculture and Resource Economics at the University of California, Berkeley so that he could further his studies on pricing policy and inflation. His position at Berkeley had nothing to do with the production of wine. Nevertheless, two weeks after arriving at Berkeley,

Catena Zapata decided to take a tour of the wineries in nearby Napa Valley. The first winery he visited was the one owned by Robert Mondavi, one of the wineries responsible for revolutionizing how wine was being made in California. Nicolas became particularly interested in Robert Mondavi's obsession with quality. On his trip to Mondavi's winery and his subsequent trips to other wineries in Napa Valley, Catena Zapata realized that the production methods at his winery in Mendoza were "prehistoric." They were of Spanish and Italian origin and were extremely outdated in comparison to what he was seeing in Napa Valley at the time. He had never imagined that science could be important for the production of wine. During his trips to Napa, he realized that enologists in Argentina were not as rigorous as those he met in California.

Catena Zapata stayed at Berkeley until 1984, traveling back to Argentina roughly once a month to continue running his family winery. But during his three-year stay in California, he also continually traveled to wineries in Napa Valley to improve his understanding of how to make new-world wines, befriending many of the owners of top wineries there. One of his most important friends was Robert Mondavi, who happened to have a B.A. in economics from Stanford.

The real transformation of the Catena winery began in 1984 when Catena Zapata returned to Argentina. His vision was to transform his family's wineries into new-world competitors that would export a substantial portion of their wine. Catena Zapata said his decision to transform his winery was not based on a detailed economic analysis of potential markets, but rather on a desire to emulate the success he had witnessed in the United States. He realized at that time that producers in the United States were competing directly with French producers in the market for fine wines. His goal was to do the same.

He began researching the best areas in Mendoza to undertake his experiments and he also began importing clones of new types of grapes from France and California that he thought would be suitable for the climate in Mendoza. He knew that he would have to select grapes that provided minimal yields per hectare. He had learned in California that this was the only way to produce new-world wines. During this experimentation phase, Catena realized that Mendoza was perfectly suited for the cultivation of grapes for high-quality wines because rainfall in that region is relatively scarce. He first experimented with Chardonnay and a Cabernet Sauvignon, two grapes that were practically unknown in Argentina at the time, but that were—perhaps not uncoincidentally—the two grapes used by Californian producers in 1976 to win the blind tasting

in Paris. In the beginning, Catena Zapata recognized that he was making many mistakes. But though the cost of these experiments was relatively high, he realized that even if the experiments were a complete failure, he would not jeopardize his entire business.

In 1986, Catena Zapata produced his first wine in the new-world style, though he only sold it domestically. He knew that his wineries were still far behind those he had seen in Napa Valley and he realized that he would need the help of international consultants if he was going to be able to produce wines that could effectively compete on world markets. Consequently, Catena Zapata contracted top consultants on new-world wines from Italy, California, and France. The first consultant he contracted was Paul Hobbs, a famous consultant responsible for transforming many wineries in California. Catena Zapata's investment in contracting the consultants was the key to his success.

With the help of consultants, Catena Zapata was able to develop wines he could sell on the world market. The grapes that he harvested in 1990 were transformed into the wine that he sold in 1992. These new wines, a Chardonnay and a Cabernet Sauvignon, were well received in the United States. His wines were given remarkable reviews, enabling him to sell out his entire production of the wines that he had made especially for export. By being able to sell his wine at \$15 dollars a bottle, he was setting the benchmark for those to come. Now, Argentine producers knew it was possible for them to produce wines that were even potentially better than their Chilean counterparts.

To a certain extent, Catena Zapata was thinking about the commercial side of his business even before the results of his experiments were clear. He had decided even before the grapes for his 1992 wine were harvested in 1990 that he would attempt to sell his wines at twice the price of the most expensive wines being sold from Chile. His goal was to demonstrate that Argentine producers could produce wines that were better than the ones that were at that time being exported from Chile. Although he achieved this goal, he would still have to find ways to promote his wines so that he could create the basis for consistent foreign sales. Until his success in 1992, his winery had taken advantage of specific opportunities to sell its wines; they did not have to consistently work on developing and nurturing their distributors and final consumers. These distributors and consumers came to Catena, albeit on an irregular basis, for specific transactions. Presently, the winery receives requests from buyers wishing to conduct such

transactions, but it is the policy of the winery not to accept them. It now works exclusively with distributors who are interested in selling the winery's products over the long term.

When he first start producing wines for the United States, Catena Zapata realized that the key to penetrating the American market lay in working closely with U.S. journalists who wrote about wine. This task was particularly difficult at the beginning because Argentine wines were simply not known in the United States. Therefore, Catena Zapata had to introduce journalists to Argentina and demonstrate to them that his country was capable of producing quality goods. Consequently, one of the first events he organized for journalists in the United States was a show with two of the top tango dancers from Argentina. He traveled with this show to seven different cities in the United States to ensure that his winery would become known throughout the country. Catena Zapata believed that commercialization abroad requires independent producers like himself to personally travel to other countries to introduce new products to journalists and potential distributors. Even today, he still travels to talk to journalists and suppliers because he is convinced that even though his trademark is relatively established, face-to-face contact is the only way that people abroad will respect producers who are not connected to a larger multinational company.

Catena Zapata's efforts to promote his wines and produce them at a level of quality equal to that of many new-world producers outside of Argentina led the *Wine Spectator* to contend in an article published on January 31, 1996 that there were only 10 world-class wine producers in South America: nine in Chile and the other one in Argentina—Catena. Shortly after this article appeared, international wine producers started establishing a foothold in Argentina. However, Catena Zapata felt that he would have to continue to try to produce better wines even after the *Wine Spectator* article appeared. From the time he sold his first new-world wines in the United States for US\$15 a bottle until the time the article appeared, no other winery except Catena had been able to make a wine that fetched more than \$50 per bottle in the United States. This changed only in 1997 when Catena Zapata himself sold one of his wines for \$80. Robert Parker, the famous wine critic for the *Wine Spectator*, called it a “great wine.”

7.3.9 Diffusion

The wines developed by Nicolas Catena Zapata in the 1990s set the benchmark for the industry. His success showed wineries in Argentina that they could not only produce new-world wines,

but they could also successfully market and sell them abroad. The ability of Catena Zapata to sell his wines at a retail price of US\$15 demonstrated that Argentine wineries were capable of competing with new-world rivals from Australia, Chile, and the United States. The initial success of Catena Zapata in confronting all of these challenges clearly reduced the uncertainties of those that followed.

Although Familia Zuccardi was also conducting experiments on these techniques in the early 1980s, Catena Zapata was the first person to commercialize new-world wines from Argentina. Other wineries would wait until the 1990s to make the conversion to new-world wines—when the regulatory climate was more stable and when Catena Zapata and Familia Zuccardi had demonstrated that it was possible to develop wines made according to new-world standards. All of the wineries in this sector that sought to produce new-world wines would have to transform their existing operations by experimenting with techniques with which they were largely unfamiliar. It is not a coincidence that many of the followers were actually subsidiaries of international wineries as they had already had the experience of transforming their own operations in other countries. The companies had the particular advantage of already having established channels of commercialization. The prior existence of these distribution networks, as we will describe, was perhaps the greatest challenge facing new-world wineries.

To a certain extent, the business model that emerged in the Argentine wine industry was a result of the diffusion of emerging techniques for growing grapes and making wine from new-world producers in Australia, the United States, and France. As mentioned above, Catena Zapata initially learned these new techniques largely from his experience in California. Nevertheless, his use of international consultants after his initial stages of experimentation proved critical in helping him to produce the type of wine desired by people in the industrialized world. Hence, in many ways his success was based upon diffusion from other countries. The techniques for growing grapes according to new-world standards diffused to others in the industry via international consultants traveling to Argentina and enologists from Argentina visiting new-world producers to see what types of techniques those producers were using and then seeing if they could adopt those techniques in Argentina.

Although developments in Chile showed that South America could produce wines according to new-world standards, there appears to have been little contact between producers in Argentina and those in Chile. Furthermore, the majority of Argentine producers in the 1990s

were setting their sights on producing wines that were of a higher quality than those being exported from Chile. Foreign consultants played a crucial role in bringing critical know-how on the growing of grapes and the development of new-world wines to Argentina.

Catena Zapata was continually setting the benchmark for the quality of new-world wines that could be produced in Argentina. Throughout the 1990s, he was selling the most expensive wines exported from Argentina. Only in the early 2000s would two other domestically owned wineries be able to produce wines that were able to fetch similar prices as those received by Catena Zapata: Familia Zuccardi and Dominio del Plata. Other wineries achieving similar results were only able to do so after having been bought by foreign companies. Pedro Marchevsky, one of the cofounders of the Dominio del Plata winery, had been Catena Zapata's head agronomist from the early 1980s until he founded his own winery in 1999 with Susana Balbo, who had worked as an enologist and foreign sales representative for several smaller wineries in Argentina. This section discusses these two domestically owned wineries and then describes how foreign wine producers came to Argentina in the late 1990s to build on the success established by Nicolas Catena Zapata.

In the early 1980s, Familia Zuccardi (also known as Bodegas la Agrícola) began thinking about developing products for export. Realizing that this would require upgrading to new-world techniques, the winery began converting its vineyards to the production of new-world wines, and began participating in international trade fairs in 1991. However, its first wine to be sold in the United States, Santa Julia Oak Reserve, fetched a price of \$8—only one dollar more than its Chilean counterparts at the time and \$7 less than the wine that Catena had sold a year earlier in the same country. Although Familia Zuccardi would continually improve the price and the quality of its wines over subsequent years, it remained behind Catena. In 1998, one year after Catena sold a bottle in the United States same country for \$80, Familia Zuccardi sold its first bottle of wine abroad at the psychologically significant price point of \$20—the Familia Zuccardi Malbec Mendoza. Thus far, Familia Zuccardi has not been able to sell a wine for more than \$45, an achievement it first reached in 2002.

Familia Zuccardi actively works to promote its exports. The current president of the winery, Jose Zuccardi, says that the winery's general strategy is to export around 50 percent of its production, in order to grow its share of both international and domestic markets while roughly dividing its production between the internal and the foreign market. Like Catena,

Familia Zuccardi also contracted foreign consultants to help improve the implementation of new-world techniques for growing grapes and harvesting wines, though it did not hire these consultants until the 1990s. Unlike the pioneer in this industry, Familia Zuccardi focuses on traditional grapes but grows and harvests them with new-world techniques. Some of its most famous wines are made with the tempranillo grape, which has a long history in Argentina and was traditionally used only to make low-quality wines according to old-world techniques. The winery has also recently started producing organic wines for export. It currently has 250 hectares certified for use in producing organic wines. The winery's goal is to eventually convert the remaining 400 hectares that it owns into certified organic production. Jose Zuccardi contends that this would not be difficult, as the winery has never used fertilizers.

Although Dominio del Plata is a relatively new winery, established in 1999 by Susana Balbo and Pedro Marchevsky, it has come to be an important exporter of wines from Argentina. The founders of this winery have strong roots in this industry in Argentina. As mentioned above, Marchevsky was the lead agronomist for Catena and Susana Balbo is a widely respected enologist who had also worked commercializing wines abroad in the 1990s. Balbo was active in diffusing new-world techniques before she started the winery with Marchevsky. Balbo and Marchevsky established their winery with the explicit goal of developing wines for high-end consumers in the United States and the United Kingdom. They currently export more than 90 percent of their production, 97 percent of which is sold in these two countries. The first thing that this couple did when they decided to start their own winery was to travel and take courses on wine making. Their winery was created with the explicit idea of first understanding what types of wines consumers in these countries were looking to consume and then finding the grapes and facilities necessary to produce them. Consequently, they started their business first by renting a winery and buying their grapes through suppliers. Although they now currently own their own winery, they still depend heavily on their suppliers for the grapes used in their wines. Balbo contends that they do not have to own their own vineyards in order to produce excellent wines. However, she says it is critical to work closely with the suppliers and ensure that the suppliers become practically partners in the business. This is the only way to ensure that suppliers will provide them with exactly the grapes they need.

Large foreign producers of wines and champagne, along with an institutional investor, Donaldson, Lufkin, and Jenrette (DLJ), began investing in the production of wines shortly after

the article by the *Wine Spectator* appeared contending that Catena was one of the top 10 producers of fine new-world wines in Latin America. Although the international producers of wines and champagnes that invested in Argentina had already implemented new-world techniques for growing grapes and making wines, there was a certain level of uncertainty as to how they would have to adapt their wine-growing techniques to the particularities of the *terroir* in Argentina. Naturally, their level of uncertainty was reduced by the fact that Catena had shown that it was possible. Perhaps the most difficult part of exporting wine from Argentina—namely, commercialization—did not present a significant problem for international wineries and producers of champagne because they could tap into their existing channels of commercialization. In this sense, they had a distinct advantage over those wineries that were owned solely by Argentines.

Nevertheless, the investment group DLJ did not have an advantage in this regard as it did not have any experience in the wine industry before buying a part of Peñaflor in 1997. It is interesting to note that the 1996 *Wine Spectator* article seems to have led many foreign investors to open wineries in Argentina; two of them, Chandon and Trivento, started producing wine from Argentina the same year. They were quickly followed one year later by Sogrape and DLJ.

Chandon is the most interesting case because it is Catena's closest competitor and explicitly claims that Catena is their benchmark. Chandon began operating in Argentina in 1961 with the goal of supplying the domestic market with champagne. It continued to produce only champagne for the domestic market until 1996, when it created two new products for export, a sparkling wine and a fine wine. The sparkling wine entered the international market rather rapidly, but Chandon would not export its first fine wine, Terrazas, until 1999. Both of these products were specifically designed for export to the United States. The company concentrated largely on the sparkling wine until 2004, when the sparkling wine began to cut into the market share of other sparkling wines produced by subsidiaries in other countries. Consequently, the French headquarters asked the Argentine subsidiary to stop production of this product. This caused the Argentine subsidiary to turn its attention solely to exporting fine wines.

From the beginning, Chandon's goal was to target upper-end consumers in order to keep the Argentine subsidiary in line with the general strategy of the larger company. Terrazas was sold internationally through the same commercialization channels as its champagnes. Although this presented the company with certain advantages, it also posed a challenge as many of the

company's distributors were not accustomed to selling wine, a beverage that does not have the same brand loyalty as champagne and hard alcohol, the most important products in the Chandon portfolio. The company had to teach its distributors about the importance of regions and countries in shaping the quality of wine while at the same time providing them with information about how the wines were actually made. Chandon currently owns 1,500 hectares of land in Argentina, of which only 850 are currently being used. Hence, it has a lot of capacity for future growth.

Peñaflor is one of the most traditional and largest wineries in Argentina. It has consistently had a large share of the domestic market. Although it was one of the first to export old-world wine in 1965, it did not seek to develop wines specifically for export but rather merely sold the same wine internationally as it did domestically. Its most famous wine, Trapiche, was the first Argentine wine to gain any real recognition outside of Argentina. Despite this success, the owners of the company were unwilling to devote resources to the export of wine because wine only represented a small percentage of the total revenue of the company, which practically dominated the market for beverages and juices in Argentina for many years. Therefore, they were content merely to take advantage of sporadic export opportunities.

This orientation began to change when DLJ bought a 33-percent stake in the company in 1997. Although this investment group immediately suggested ways to reorganize the company, real change did not begin until DLJ bought another 57-percent stake in 2002. After gaining control of the company, DLJ focused the company solely on the production and export of wine, selling off all of the other beverage units and investing the resulting capital in upgrading the grape-growing and wine-making facilities to resemble new-world producers. Today the company owns 3,000 hectares in Mendoza, San Juan, Salta, Catamarca, and La Rioja and has machinery that can fill 52,000 bottles per hour. The seven wineries that now make up Peñaflor employ a total of 1,300 people. The company currently exports its wines to more than 60 countries.

Sogrape is an example of a larger international winemaker that decided to establish a foothold in Argentina by buying Finca Flichman, one of the oldest traditional producers of wine in Mendoza that traces its origin back to 1873. Sogrape, a Portuguese firm, bought Finca Flichman in 1997 with the idea of converting it into a new-world winery. It imported stainless-steel tanks and all of the other necessary equipment, and also updated the manner in which grapes were grown to meet new-world standards. Sogrape already had 45 percent of the market

in Portugal and had therefore been prevented by Portuguese law from buying more wineries in the country. Top executives decided to buy Flichman because they knew that Argentina had the capability to produce good wine but they were unsure whether the Argentines actually knew how to sell what they made. One of the reasons Sogrape decided to buy Flichman was because one of Sogrape's executives had observed that Argentineans in the wine business spoke very poor English, and thus, could not be exporting successfully. Sogrape's strategy seems to have paid off. Today, 50 percent of the company's production is dedicated to exports, earning the company more than USD \$5 million in 2004, a 60-percent increase from the year before.

Trivento is another example of a large foreign wine producer that decided to set up house in Argentina. This company is part of one of the most important producers of wine in Chile, Concha y Toro. Unlike Sogrape, Trivento decided to establish its own wineries instead of buying existing ones. It began operations in Argentina in 1996. The Trivento wineries enable Concha y Toro to complement its own range of wines with those that are generally not grown in Chile. At first, Trivento sold its wines through the channels of commercialization that had been established by Concha y Toro in Chile. Top executives at Concha y Toro decided to have Trivento create its own channels of commercialization a few years later after discovering that the wines they were producing in Argentina were competing directly with those that they were producing in Chile. Trivento currently exports to the United Kingdom, Scandinavia, Holland, Canada, Switzerland, Brazil, Germany, and the United States. Its two Argentine establishments are capable of producing 27.9 million liters of wine a year.

7.3.10 Counterfactual Case

Although Bodegas López is one of oldest and largest wineries in Argentina, it has not yet fully adopted new-world techniques. Despite the fact that it does use stainless-steel tanks to control the temperature at which its wine is fermented, the winery does not produce wines with new-world tastes. Instead, it continues to produce wines that are bold and heavy, rather than light and fruity as desired by new-world consumers. Although the market has changed, this winery continues to export the same wines that it produces for the domestic market. To a larger extent, its business remains connected primarily to the domestic market. The winery only exports 10 percent of its production and apparently does not have plans to either increase this percentage or transform its operations to meet new-world standards.

This winery was founded in 1898 by Jose López Rivas, an immigrant from Spain. Carlos Alberto López, a member of the third generation of this family, is the president, overseeing the winery's operation with the help of his son. Even the higher-quality wines that Bodegas López produces are still made in the old-world tradition. The winery continues to use the same style of bottles that were popular in Argentina 20 years ago for some of its wines. These bottles have long necks and thick bottoms rather than the more standard bottle commonly found in most stores across the world. In terms of production, the winery has introduced the use of stainless-steel tanks to ferment its wine, but it still uses 5,000-liter oak barrels—instead of the 225-liter barrels favored by new-world producers—to age some of its finer wines.

The top management at Bodegas López seems unwilling to change its business model. In September 2003, the Exxel group decided to sell its 33-percent stake in the winery after the family refused to develop new product lines and launch an aggressive marketing campaign. Nevertheless, the company has more than enough capacity to continue to produce the same wines. It has a 12,900,000-liter capacity in stainless-steel tanks; 5,240,000-liter capacity in 5,000 liter oak barrels; and 40,000,000-liter capacity in rubber-lined cement tanks. It currently exports the same products sold in the domestic market to 25 countries, 14 of which are in Latin America and three of which are located in Eastern Europe.

7.3.11 The Role of Government and Associations

Many Argentine wineries have yet to fully upgrade the manner in which they grow their grapes or the manner in which they make their wines. Some wineries have not changed any of their techniques in this regard. Nevertheless, there is general consensus in the industry that it is in the interests of even higher-end producers to upgrade to more sophisticated techniques. As mentioned above, low-quality exports could potentially prevent foreign consumers from trying better wines from Argentina.

One of the major problems for producers who have not changed the manner in which they make wine or grow grapes is the lack of consistency. If wines are not consistent from bottle to bottle or year to year, consumers will stop drinking that wine and will turn to other producers that can deliver consistency. Since wines are marketed under countries and or regions, consumers are unlikely to try wines from regions or countries that are unable to meet this demand. Because consumers usually begin drinking wines of lower quality before moving to

higher-quality ones, it is essential that lower-quality wines are consistent. A \$5 bottle of wine has to taste like a \$5 bottle of wine. If it tastes less expensive, the customer loses confidence in the region and/or country from which it came.

Producers of lower-quality wines who only sporadically export are not necessarily interested in improving the quality of their wines. They can simply find new clients if their quality varies from year to year. But all wineries in Argentina would benefit if those who were producing and exporting according to the new-world model would shift to the new export model. There are several organizations in Argentina that help wineries to upgrade the way they grow their grapes and how they make their wines. Paradoxically, there are not organizations that help wineries to actually improve the way in which they commercialize their wines abroad.

One example of an organization dedicated to diffusing information among grape producers is the non-profit Regional Consortium of Agricultural Experimentation (CREA). It seeks to spread knowledge among growers of grapes throughout Argentina. The division of CREA that is dedicated to the wine industry coordinates monthly meetings of different groups of grape growers, usually consisting of 12 members each, to discuss the common problems they are facing. CREA has helped both medium and large vineyards solve problems and improve the quality of the grapes they produce. Participants contend that they are not revealing wine-making secrets or losing their competitive advantage by participating in the meetings. They say it is merely a forum for grape producers to share information and experiences in an attempt to improve the productivity and quality of all its members. Large- and medium-sized vineyards alike are willing to participate because they believe that the industry as a whole should work to increase the number of international consumers buying Argentine wine. If more people buy Argentine wine, everyone will benefit. CREA's focus on improving quality has actually led to an improvement not only in the production of grapes for fine wines but also in the production of table wines, which have improved during the past decade thanks to experiments originally undertaken to develop fine wines.

The National Institute of Agricultural Technology (INTA) also works with producers to develop new techniques for growing grapes, though it provides more technical information than that provided by CREA. INTA generates detailed mappings of microclimates in different wine-producing regions of Argentina. Unlike CREA, INTA also researches new techniques for creating wines. INTA conducts research for many different wineries, including those producing

some of the highest-quality wines in Argentina; even Bodegas Catena Zapata hires INTA to conduct research. Since INTA is dedicated to promoting the industry as a whole, rather than specific wineries, it only agrees to conduct research that will be shared with others in the industry. Diffusion is part of the contract.

To some extent, wine producers in Mendoza, Argentina have always worked together informally to diffuse information regarding the growing of grapes and the development of wines. The advisory council of INTA in Mendoza has served as a general forum for grape producers and wine makers to meet to discuss their concerns in Mendoza. In 1999, they began to formalize the coordination of the activities of various support agencies, such as INTA, CREA, the Department of Agricultural Sciences at the National University of Cuyo in Mendoza, and the Federal Council on Investments. After studying the Australian wine industry, INTA's advisory council concluded that the strategic plan formulated by the Australian wine industry was one of the keys to its success. Hence, the council began formulating a strategic plan for Argentina in 1999 and finished developing it in 2000. Like its Australian counterparts, the council decided to include associations of wine producers and representatives from the public sphere. Thus, it formed teams made up of representatives from public and private institutions as well as important wine producers to benchmark Argentine products and policies against those of competing countries such as Australia and Chile. In its initial stage, the advisory council decided to include grape and wine producers from San Juan as well as Mendoza. The advisory board's specific goal with regard to exports was to increase the worldwide market share of Argentine wines from 2 percent to 10 percent by 2020.

The producers and civic associations involved in the formulation of this plan realize that they will have to cooperate on a wide range of issues in order to take market share from other countries rather than simply compete with each other and potentially undermine the overall growth in Argentina's market share of the country. Many wineries in Argentina believe that it is important for the members of this industry to have a common vision of where it should go. This vision and the cooperation it entails do not require wineries to abandon their different strategies or even target markets. The strategic plan emerged from the desire of local companies and institutions to form new ways of interacting with the national government. They were aware that similar plans developed and promoted by the government for the meat industry had failed

because the administrators did not actively interact with the actual producers to understand their needs. Thus, the programs were of little use to the meat producers.

The strategic plan developed by INTA's advisory council served as the basis for the passing of a law by the national government of Argentina in November 2003 to form the Argentina Wine Corporation (COVIAR). This new public-private entity, which was funded by a sales tax on wine and grape juice, and has one administrative manager, a technical manager, a spokesman, a legal advisor, an administrative assistant, and a secretary—was charged with implementing the strategic plan developed by INTA's advisory council. It serves as an umbrella organization that coordinates activities and sets priorities for the industry and then contracts with other organizations to undertake the programs and investigations that are deemed necessary for the growth of the industry. For example, Wines of Argentina serves as the mechanism for coordinating the promotion of Argentine wines abroad, the viniculture fund serves as the mechanism for improving the internal market for wine, and INTA is charged with investigating and disseminating information regarding technical issues.

Wineries from San Juan were intentionally given 50 percent of the representative seats on the board of COVIAR despite the fact that the province accounts for roughly 30 percent of all national wine production and 6 percent of all exports from this industry. In comparison, Mendoza accounts for roughly 60 percent of all national production and 90 percent of all exports. Although San Juan has always been seen as the smaller child to Mendoza in this industry, it was thought that by giving the province equal participation in COVIAR, production in that region could be upgraded. There are indeed some producers of fine wines in San Juan, but for the most part production in that region is largely still dedicated to table wines. Nevertheless, some observers in the industry believe that eventually, the region could produce some excellent fine wines. What is needed is simply more investigation into what types of grapes raised in what type of manner would best fit the *terroir* of that region.

It is not surprising that the idea for the strategic plan emerged from a local group in Mendoza. Historically, this province has always prided itself on its independence from the national government. Furthermore, the ethnic background of its inhabitants is rather diverse, with immigrants coming from Italy, Spain, and even France. No one political party ever fully dominates this province, so the democratic tradition is quite strong. In San Juan, immigrants largely came from Spain, and the government in that city has traditionally looked to the national

government for help and guidance. Hence, there is little tradition of different groups working together.

Wines of Argentina and ExportAr offer wineries help in establishing contacts with potential foreign clients. They organize wine tastings in other countries or in Argentina so that potential clients can sample a variety of Argentine wines. Wines of Argentina customarily organizes tastings for higher-quality wines made by larger producers, while ExportAr generally focuses on smaller producers. ProMendoza, a semi-public organization charged with promoting exports from this province and intimately involved in the strategic plan and in COVIAR, developed a system for evaluating whether a particular firm was actually capable of performing well in the trade fairs it sponsored. Wines of Argentina facilitates connections between Argentine wineries and potential clients, but does not get directly involved in any negotiations. The organization also provides wineries with information about consumption patterns in particular foreign markets to help them evaluate whether or not they should target a particular country. In addition, it also promotes Argentine wines abroad by speaking with journalists and manning stands at international trade fairs. Wines of Argentina carefully selects the wineries that it represents at such events. It conducts blind taste tests before every event and selects the top wines from that test to showcase.

The strategy outlined above does not assume that Argentina will not export table wines. The goal for all producers is to improve quality—not necessarily to move into the production of fine wines. Nonetheless, it is important to note that new production practices generally associated with fine wines help to improve the quality of lower-quality wines. The active promotion of diffusion of knowledge could improve the overall profitability of the industry more than what would occur if each winery was acting on its own. This logic underlies the desire of important wineries and supporting institutions to form a strategic plan for the industry.

Clearly, the development of a country brand is important. If more international consumers come to regard Argentina as a country that produces high-quality wines, all Argentine wineries could potentially benefit. The goal is for Argentine wineries to work together to take market share from producers in other countries. If that can be done, there is room for many to prosper. One observer of this industry, who is rather skeptical about the strategic plan and COVAIR, believes that in the future consumers will switch from associating the quality of a wine with a particular country to associating quality with a particular company. This would be a

troubling scenario for COVAIR and the strategic plan, but such a development may be years away.

7.3.12 Public Policy

If the country of origin will continue to be important for consumers in selecting the wines they choose to consume, it would be beneficial for Argentine producers to continue to work together to improve the industry. Such cooperation can help even those targeting the lower end of the market to produce better-quality wines and thereby potentially attract these customers to buy higher-end wines made by different wineries. Thus, the success of higher-end producers would seem to depend, at least partially, on the quality of the wines their lower-end counterparts produce. At the same time, the great variety of grapes and the different ways in which they can be grown and turned into wine in Argentina could provide a wide variety of producers with a range of different market niches. Finally, the success of the Australian strategic plan would seem to indicate that this type of cooperation could lead to further growth in this industry.

INTA has proven to be invaluable in diffusing information throughout Argentina's wine industry. Its arrangement to conduct research for specific wineries on grape-growing methods is an interesting model that provides the winery with excellent research but also ensures diffusion of the knowledge gained. Although the national government reduced INTA's funding in the 1990s, the government may wish to reconsider before simply reinstating the funding, as the retraction of the funds may have played a critical role in making INTA work more closely with wineries. This policy recommendation does not deny the fact that the work undertaken by INTA was critical for the success of this industry.

If the government were to choose to provide further financial assistance to this industry, it would be advisable for it to provide funds directly to COVAIR, as this organization has the best understanding of where money should be allocated. In this manner, the government could move toward a new public management approach in which it stops funding specific programs and instead, directs funds to umbrella organizations that are more familiar with the particular needs of an industry. Nevertheless, the government should ensure that COVAIR does not simply turn into a mechanism for seeking the assistance of government and its agencies. The fact that there are government representatives on the COVAIR's board should help prevent this from occurring. Nevertheless, the government should work closely with COVAIR to ensure that any

funds it is providing are well used. Perhaps it could set specific goals in cooperation with COVAIR as a means for ensuring its accountability.

The most important challenge facing wineries in Argentina today is commercialization. Wines of Argentina is currently working on a campaign to promote the consumption of Argentine wines in foreign countries. This campaign should help familiarize consumers in targeted countries with the great variety of wines Argentina has to offer. At the same time, the work Wines of Argentina has done in arranging tastings of different Argentine wines has surely helped spread awareness of the high quality of Argentine wines. The organization's policy of selecting wines to represent at trade fairs through blind taste tests would seem to be the only way to ensure that Argentina becomes known as a producer of high-quality wines. This policy also serves to push wineries to continually improve the quality of their products. It would not be recommendable, nor practical, for Argentina to somehow forbid the exportation of low-quality wines.

Although Wines of Argentina has sought to help wineries in a variety of ways, one area in which it is apparently lacking is in helping firms to develop long-term relationships with potential and existing clients. Perhaps Wines of Argentina could create forums such as those undertaken by CREA to help wineries exchange information and experiences about building such relationships. Like CREA, wineries would not have to reveal any trade secrets in such meetings. Such assistance could help those wineries that are still conducting sporadic exports to re-evaluate their strategy for exporting. At the same time, INTA would have to work closely with the wineries in order to ensure that they would be able to deliver a consistent product to their clients. Without quality on the production side, long-term relationships with distributors would seem difficult to achieve.

In general, greater cooperation on issues related to commercialization may prove beneficial to the industry as a whole. One mechanism for promoting further exports in this sector could be the formation of alliances or cooperative arrangements between some of the smaller producers in this industry. Such agreements between independent producers could either help them to export their products jointly or simply meet to exchange information about best practices for commercializing their products. It may even be the task of national or state governments to encourage firms to form such agreements.

7.4 Wooden Furniture (Case IV)

Case studies of the wooden furniture industry from the perspective of exporting countries can provide interesting insights into how small- and medium-sized enterprises (SMEs) in countries like Argentina can position themselves in highly competitive industries in which products are not differentiated according to brand names, but are still highly differentiated both horizontally and vertically. The growth of exports from this sector in Argentina demonstrates that developing countries do not necessarily have to focus on the production of low-end furniture in order to gain market share in advanced industrialized societies. Some Argentine companies are even directly competing with high-end producers from Italy, the leader in this segment.

Because of the flexible nature of production in the industry as a whole, most firms can easily adapt their production to meet the challenge of producing high-end furniture. Producers seem to have little difficulty in changing the size of their products and the component parts that go into them. However, though the industry has the proper technology to produce high-end furniture, many firms in the sector do not pay careful attention to the quality of the products they are producing because such attention to detail is not required for the domestic market. Solving the problem will not require new machinery, but rather, a new way of working.

Firms cannot simply sell products they produce for the domestic market in other countries. For the most part, these products have to be adapted to the tastes of the particular market being targeted. One of the critical elements in this process would seem to be having access to designers who are able to help these firms adapt their products to the tastes of consumers in other countries. As these tastes change, firms have to be capable of changing their designs and production while ensuring that their new products do not cannibalize their existing ones. In order to consistently penetrate foreign markets, firms need to develop close working relationships with their distributors. However, many of the companies in this industry, as of yet, have been unable to move beyond sporadic interactions. And when firms are able to forge long-term relationships with distributors in foreign countries, they are sometimes unable to produce the volume and variety of products which these distributors demand over time.

It should be noted at the outset that adopting an export business model, and the product and market upgrades it entails, is just beginning of a process of diffusion in this industry. This study contends that there is one firm in this industry that understands the model and is in the process of attempting to implement it. International buyers are interested in buying furniture

from Argentina, but only if it meets very specific requirements that are related more to how something is designed and built rather than to a dramatic change in the actual production process or the machinery involved. Changing the manner in which a firm operates is an investment that, at this level of development in Argentina's wooden furniture industry, is the key component that is generally missing.

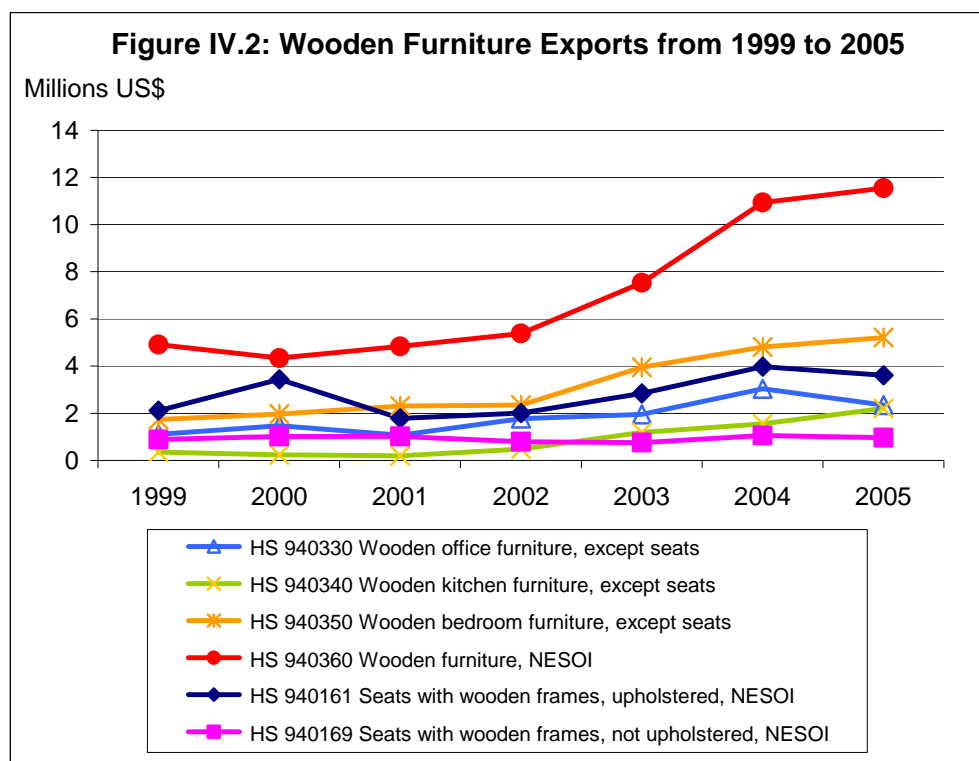
7.4.1 Overview of Argentine Exports

Argentine exports grew relatively steadily from 1993 until 2001. However, the real boom in exports from this industry started after the devaluation of the Argentine peso in 2001, growing from \$10 million in 2001 to \$25.9 million in 2005. Figure IV.1 shows the sector's total export values from 1991 to 2005. As indicated, exports grew approximately 15 percent per year from 1991 until 2001 while this growth was roughly 40 percent per year between 2001 and 2004. The decline in the growth rate from 2004 until 2005 may indicate that the competitive advantage generated by devaluation has dissipated over time. In other words, the rapid growth rate after 2001 can be explained by a decline in the price of Argentine furniture products brought about by the devaluation of Argentina's currency.



Source: INDEC (National Institute of Statistics and Census of Argentina).

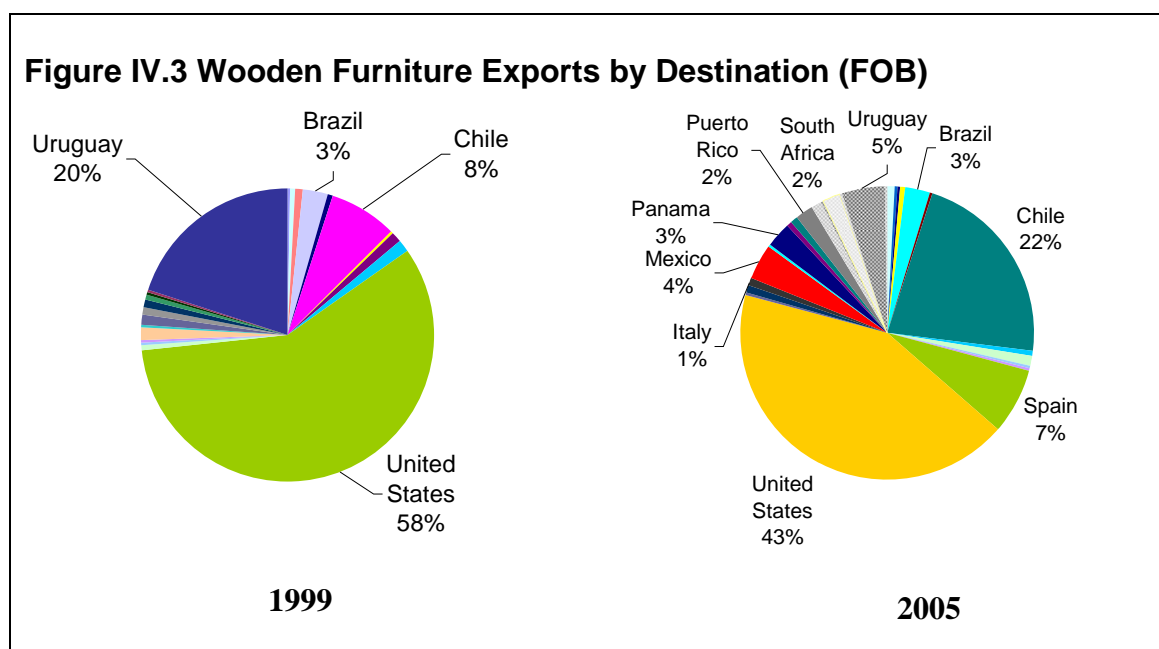
We define this industry as comprising the 6-digit positions of HS 940330, 940340, 940350, 940360, 940161, and 940169.²³ Within this group of firms are producers of “other furniture;” office, kitchen, and bedroom furniture; and upholstered and non-upholstered seats. As shown in Figure IV.2, the category of “other furniture” (HS 940350), which consists mainly of dining room tables, has consistently exported more than the other categories and has the highest level of growth. The second largest exporter within this group is bedroom furniture (HS 940330). Exports in 2005 consisted of 82 percent wooden furniture (45 percent other, 20 percent bedroom, 9 percent office, and 9 percent kitchen) and 18 percent seats (14 percent upholstered and 4 percent non-upholstered).



Source: INDEC (National Institute of Statistics and Census of Argentina).

²³ The wood furniture sector is defined by combining four 6-digit positions (HS 940330, 940340, 940350 and 940360) from the 4-digit furniture code with two 6-digit positions (HS 940161 and 940169) from the 4-digit code for seats. Although the metal furniture sector is included in the same 4-digit category as wood furniture, it is excluded from this analysis since this industry has a very different production process and is far more concentrated. Furthermore, the metal furniture industry exports primarily to countries in Mercosur and other regional markets. The

The primary destination of exports from Argentina is currently the United States. Of the \$25.9 million exported in 2005, 42.8 percent went to the United States, while 30.1 percent went to countries within Mercosur (Uruguay, Chile, and Brazil), and 7.2 percent went to Spain. Figure IV.3 shows how destinations for wooden furniture from Argentina changed between 1999 and 2005. Although the United States accounted for a lower percentage of exports from Argentina in 2005 than in 1999, it still remains by far the largest importer of wooden furniture from Argentina. The percentage of exports going to Mercosur countries has remained relatively constant, although there was a dramatic decline in exports to Uruguay—from 20 percent of total exports in 1999 to 5 percent in 2005—and a dramatic increase in exports to Chile—from 8 percent in 1999 to 22 percent in 2005. It is interesting to note that the destinations for exports from Argentina have grown more diverse, even as Latin America remains by far the largest continental importer of Argentine wooden furniture. In 2005, 82 percent of furniture exports were to countries in the Americas. Within this continent, the United States is the main importer, followed by Chile, Uruguay, Mexico, Panama, and Brazil. Within Europe, most exports go to Spain, followed in order by Italy, France, and the United Kingdom. Exports to Asia account for only 0.01 percent of the total.



Source: INDEC (National Institute of Statistics and Census of Argentina).

sector was also defined to include wooden seats because they are often produced by the same companies as those in

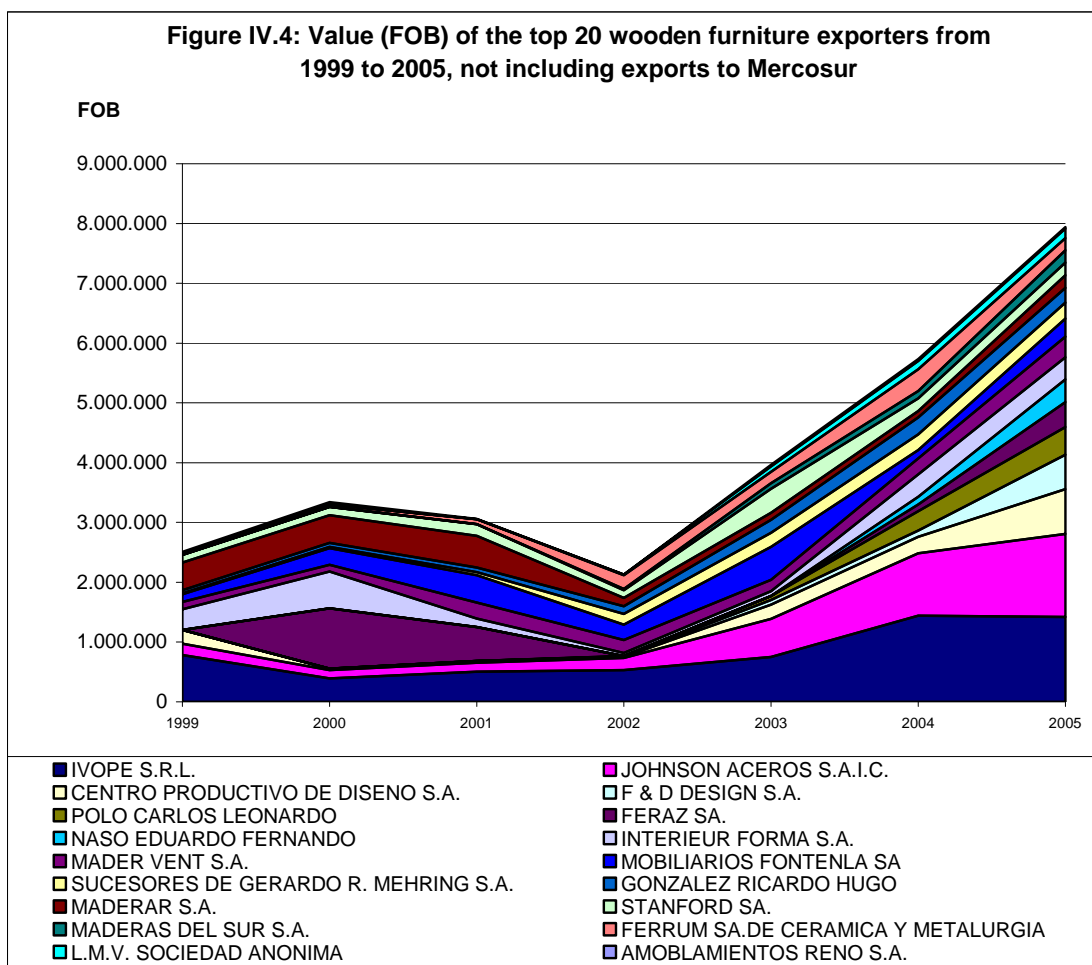
7.4.2 Main Exporters in Argentina

The structure of the wooden furniture sector in Argentina mirrors that of the worldwide sector as a whole. Globally, 90 percent of firms in this sector are SMEs with less than 20 workers. In Argentina, there are 2,640 companies, 90 percent of which are SMEs. The average company in Argentina has 7.1 employees. Within Argentina, 50 percent of firms are located in the Province of Buenos Aires, 16 percent in the province of Santa Fe, 12 percent in Cordoba, 9 percent in Misiones, 5 percent in Mendoza, and the remainder scattered throughout the remaining provinces. Of the top 10 exporters identified in this study, one was partially owned by a Swedish company, and another was partially owned by a U.S. company.

Figure IV.4 shows the evolution in the value of furniture (FOB) exported in 2005 by the top 18 exporters in Argentina to countries outside of Mercosur.²⁴ As can be seen in the diagram, exports outside of Mercosur more than tripled when compared to either 1999 or 2002.

the other positions identified for this study.

²⁴ It should be noted, however, that the data presented in Figure IV.5 might not be completely accurate due to the fact that in many cases, producers sell their products through intermediaries. Although Blanco Marcelo and Ketras Cargo rank as two of the top 20 exporters, the former was not included in this figure because it is an exporter of antiques, and the latter was excluded because it is merely an export company that does not manufacture anything.

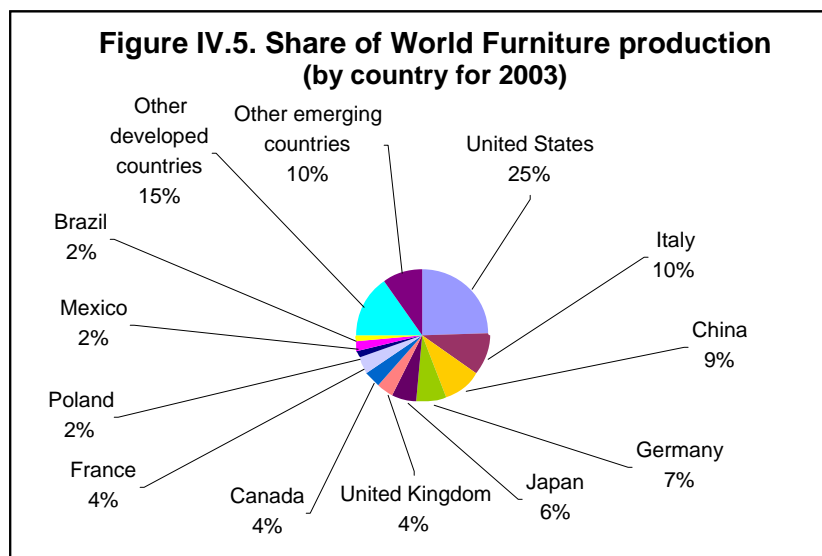


Source: INDEC (National Institute of Statistics and Census of Argentina).

7.4.3 International Trade

As a whole, worldwide production of furniture grew from an estimated \$107.37 billion in 1999 to an estimated \$129.97 billion in 2003. Figure IV.5 shows the shares of the main worldwide furniture-producing countries in 2003, including countries from the developed world such as Italy, Germany, Japan, and the United Kingdom, and some from the developing world, such as China, Poland, and Brazil. Surprisingly, some of the countries on this list are also some of the main importers of furniture.

Worldwide imports grew from an estimated \$14.9 billion in 1999 to an estimated \$21.5 billion in 2003, an average annual growth rate of 9.59 percent. For the most part, trade within this industry occurs between industrialized countries (United States, Canada, European countries, Japan, and China). In 2003, the top five importers of wooden furniture were advanced industrialized countries: the United States imported \$9.29 billion, Germany \$2.03 billion, the United Kingdom \$2.01 billion, France \$1.59 billion, and Japan \$1.15 billion. Except for China, all of the top five exporters in 2003 were also advanced industrialized countries.



Source: INDEC (National Institute of Statistics and Census of Argentina).

Italy has been the top exporter of wooden furniture for the past five years. Italy accounts for 19 percent of all exports, followed by China with 17 percent, Germany with 13 percent, Canada with 12 percent, and Denmark with 9 percent. Although the rankings have changed

slightly during the past five years, these countries have remained in the top five during this period.

Italy's focus on the production of high-end furniture enables it to maintain its leadership position. Italian furniture firms are characterized by a high degree of horizontal integration in a market composed mainly of small- and medium-sized producers working together in networks. This structure enables them to quickly alter their production processes to produce different styles of furniture; differences in these models are discussed in greater detail below in the section on the supply chain of this industry. Vertically integrated, mass-producing firms like those found in Canada, Germany, and China find it difficult to quickly adapt their production to changing styles. Like all of the other top five producers in the industry, Italy depends on imports of wood from foreign countries.²⁵ The focus of Italian producers on high-end wooden furniture requiring constant adaptations to changing styles and tastes enables them to avoid the pressure of competing directly with the other top three producers.

Many countries are unable to protect their industries from competition from Asia. Germany and Canada, for example, use world-class machinery, but this does not offer them any protection from competitors with lower labor costs because producers in other countries with lower labor costs also have the latest machinery. Consequently, it is not surprising that production in the low-end sector of this market has moved to other countries. Production in Canada has come under increasing pressure from Chinese producers because they are both focused on the lower end of the market and produce their products with dedicated production lines that follow the precepts of mass standardized production. Firms in both countries depend heavily on imports of hardwoods from the United States. Despite its lack of proximity to the U.S. market, the Chinese have come to replace the Canadians as the top exporter to that country; today, Canada has only 20 percent of the U.S. market. One potential explanation for this shift in production to countries like China is the fact that labor accounts for 40 percent of production costs in this industry worldwide. Clearly, labor is less expensive in China than in Canada.

²⁵ In comparison, Argentina has a distinct advantage because it is one of the few world producers of furniture that does not have to import wood. Although Argentine producers do have to pay international prices for the wood they use, they have the advantage of having lower shipping costs.

Lower labor costs have enabled China to become the second-largest furniture exporter in the world. By the end of 2005, it had almost gained the same market share as Italy.²⁶ Its main destination is the United States, where it has an estimated 40-percent share of the home furniture market. It specializes in unassembled furniture made of pressed wood. Although Chinese products are relatively inexpensive, they are not known for their design.

The pursuit of lower labor costs in this industry has caused a shift from production from Taiwan to Malaysia, and then to Indonesia. Recently, Vietnam has come to be a major competitor based primarily on lower labor costs and the installation of the latest machinery. The only apparent strategy available to those countries that do not want to enter into this race to the bottom would seem to be a focus on semi-customized products that can be adapted to changes in consumer tastes. This is evidently the avenue being pursued by the majority of Argentine firms in this sector.

Globally, the furniture industry is characterized by a diversified demand that results in the existence of a variety of distinct market segments. Moreover, the demand for furniture varies considerably with changes in styles and trends, so producers have to have flexible organizations that are capable of changing designs and production with changes in the market. Secondly, patent protection is weak in this business. Therefore, firms face difficulties in capturing returns from innovations. Finally, economies of scale do not play a significant role in comparison with other industries. Although there are a few exceptions, firms in this industry tend to be small, as mentioned above.

7.4.4 Value Chain of the Wooden Furniture Industry

This section provides a schematic description of the value chain of the wooden furniture industry. It includes the main roles in this value chain, from the growing of trees to the final consumer. Figure IV.6 shows the value chain.

²⁶ China's case is the result of an industrialization process that took part in the 1990s, through foreign direct investment and the development of joint ventures. Many firms have been established in Chinese territory with foreign capital. Some of the investing countries are the United States, Italy, Germany, Denmark, Spain, and Singapore.

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graph LR; TG[Tree Growing] --> WBM[Wood Board Manufacturing]; WBM --> FPM[Furniture Parts Manufacturers]; FPM --> WFM[Wood Furniture Manufacturers]; WFM --> D[Distributors]; D --> R[Retailers]; R --> EC[End-customers]; Designers --> FPM; Designers --> WFM; MOM[Manufacturers of Other Materials] --> WFM
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In this figure, some roles have been grouped together, such as that of the manufacturing of other materials, while other roles such as the suppliers to the manufactures of other materials have not been included at all. This simplification was made to facilitate the description of the most relevant roles. Some roles were excluded because they were not considered to be determinant factors in either the value chain or the discovery-diffusion process. The next section describes each role in the wooden furniture value chain.

Argentina's geography is suitable for growing conifers. Thus, it has a distinct competitive advantage since it is able to go against the general trend of using lower-quality pine.

Nevertheless, wooden furniture manufacturers are reluctant to switch from carob wood, the traditional preference of firms in Argentina, to eucalyptus or pine because neither is as hard or as stable as the former. Ivope, one of the leaders in this industry, has recently started experimenting with using eucalyptus wood, but currently believes that it can only be used for certain models of furniture. Hence, the company is not using it to fully replace carob. Part of its problem with eucalyptus wood is the fact that its clients are accustomed to a certain style of furniture that is made with carob. Furthermore, carob is much sturdier than eucalyptus and is well suited to sturdy, large furniture, which is one of Ivope's hallmarks. Mehring, another industry leader, uses pine for almost all of its furniture and is not interested in switching to other types of wood. Ivope is the only exporter in Argentina that certifies that its wood comes from planted forests. One major consultant in this industry said that German consumers are practically the only ones who want assurances that the wood in the furniture they buy comes from certified forests. In the United States, only a few environmentally conscious consumers worry about this issue.

Wooden board manufacturing. Wooden board manufacturers buy logs and product boards from growers. In the manufacturing process, logs are sawed in different ways to obtain wooden boards. The sawing process produces scrap, consisting mainly of wooden chips, which are then used to make pressed wood. Both types of boards are the main inputs for furniture manufactures. Because the transportation of logs on special trailers can be considerably costly, wooden board and furniture part manufacturers are located close to forests. The fact that there are few producers of wooden boards and pressed wood in Argentina causes buyers to be at a relative disadvantage.

Furniture parts manufacturing. In this study, furniture parts are considered to be those components that are central to the furniture manufacturers. Such parts can be critical in convincing the final consumer to buy a piece of furniture. There are other materials used for wooden furniture manufacturing such as stains and glues that do not have a significant impact on the final customers' purchasing decisions. Since they are not critical for the production of wooden furniture, they are not specifically discussed.

Furniture parts, which include wooden, metal, or plastic parts, can be made by the furniture manufactures or they can be sourced from a supplier. For the most part, wooden furniture manufactures in Argentina tend to rely on suppliers to produce particularly intricate

parts. They chose to outsource such production largely because they do not own the computed numerically controlled (CNC) machines required to make such components. They could potentially make such parts by hand, but that requires too much time. Consequently, wooden furniture manufactures rely upon close cooperation with the suppliers, even to the extent of sharing design specifications with them. The suppliers provide wooden furniture manufacturers with economies of scale that they could not enjoy if they decided to do these operations themselves. In the general region of the province of Santa Fe, in which three of the major manufacturers are located, there are three small shops that specialize in using CNC machines to make such parts.

Wooden furniture manufacturing. There are two general organizational models for wooden furniture producers throughout the world. The first is the German style of organization, which is dominated by large and medium-sized companies that outsource little if any of their production and focus on the economies of scale using advanced machinery. The second is the network-based Italian model, which consists largely of smaller firms that outsource the production of components parts to closely linked suppliers. Both are addressed below.

Networks of suppliers and producers in the Italian wooden furniture industry generally consist of firms that i) design, furnish, and assemble furniture and ii) supply component parts. By working closely with a large number of suppliers within the network and helping them to upgrade their production and resolve technical issues, the first type of firms are able to rapidly adapt their products to changes in consumer tastes while also ensuring that the component parts meet particular specifications and levels of quality. Occasionally, these networks include a lead firm that designs and exports furniture assembled and furnished by others in this organization. Such firms negotiate with foreign buyers on behalf of the other firms in the network, thereby enabling lead firms to provide their clients with a wide variety of different products. Hence, these networks are able to supply markets with a wide array of products adapted to the latest trends while also being able to deliver the volume of goods generally sought by distributors. Mehring, one of the lead firms in this industry in this country, recently began forming such a network with the help of the Italian embassy in Argentina.

As mentioned above, Germany is the second worldwide producer and the main European consumer of furniture. Its imports exceed its exports due to high per capita income that allows the German population to maintain high levels of consumption. In contrast to the Italian case,

German producers are vertically integrated. They tend to dedicate their operations to a few product lines and offer a limited variety of furniture models. The largest 10 producers account for more than 25 percent of total production in Germany. Their competitive advantage lies in economies of scale in production, commercialization, and financing. The products of these companies are considered to be of high quality, durable, and functional. Although the quality of the production is indeed world-class, the production system does not enable manufacturers to adapt easily to changing styles.

Distribution. Wooden furniture manufacturers tend to sell their products to distributors and not directly to the final customer. Larger distributors tend to specify the design of the furniture they are seeking, while smaller ones buy products designed by the furniture manufacturer or an agent contracted by that party. Some smaller-scale distributors work with manufacturers to help them design furniture. There are no international distributors that actually have offices in Argentina. In general, international intermediaries are not interested in establishing a foothold in Argentina because the quantity of furniture sold from there simply does not justify it.

Retailing. There are a variety of retail outlets. Generally, these stores tend to specialize in selling practical furniture, do-it-yourself furniture kits, medium-range furniture, or high-end products. While higher-priced furniture is mainly sold through specialty stores, lower-end products such as practical furniture and do-it-yourself furniture kits are sold through home-improvement retailers, who tend to impose design, marketing, quality, labor, and environmental standards on the manufacturers of the furniture they buy. These stores prefer “ready-to-assemble” or “do-it-yourself” lines since they have lower shipping and assembling costs. Specialty stores look more for independent producers who are able to design their products on their own. As discussed below, this would appear to be the market segment best suited to the capabilities and limitations of Argentine exporters.

Design. Traditionally, design has been a key factor differentiating higher-end furniture from lower-end furniture. However, it has recently become an issue for lower-priced items as well. At present, even do-it-yourself furniture kits need to have to some sophistication in order to be accepted by final customers. Additionally, all manufacturers must to a certain extent take into consideration particularities of the country to which furniture will be exported. The dimensions of the products have to be adapted to the particularities not only of the tastes of people in the

target country, but also to the specific dimensions of the people themselves. Furniture designed for small, luxurious apartments in Japan will not fit the spacious rooms of upper-middle class homes in the United States. Even within a country, differences in styles and dimensions can be significant. In the end, one of the key elements for successfully exporting furniture to other countries is adapting the product to meet the needs of a particular country or region. If such adaptations are not made, even a high-quality product will not sell in the target country.

7.4.5 The Evolution of Wooden Furniture Manufacturers in Argentina

Although Argentina has manufactured wooden furniture for many years, the industry has not been an important export sector. When firms in the industry did export, they were mainly taking advantage of sporadic opportunities rather than seeking a more systematic way of developing this potential source of revenue. Consequently, they tended simply to export what they sold in the domestic market. In the 1990s, some companies started to take advantage of opportunities to produce furniture designed by a specific client without seeking to leverage such opportunities to generate further exports by either actively seeking more clients or diversifying the type of products they actually produced.

Argentina has the proper factor endowments to be an exporter of wooden furniture. In contrast with most of the leading manufacturers of wooden furniture in the world, Argentine companies have ready access to wood. Although some companies in the sector are currently looking to purchase machines to improve the performance of specific tasks, most firms generally possess the necessary equipment to produce high-end furniture. This sector is dominated by small-scale producers. Except for Platium, a producer of low-end furniture with practically no exports outside of Mercosur, Argentina has not had any firms that resemble the German model. Argentine producers of wooden furniture, like their Italian counterparts, traditionally began as small carpentry shops that moved into the production of furniture by purchasing machinery.

Although the vast majority of the owners of factories in this sector are well versed in the technical aspects of production, they lack skills in designing, marketing, and selling new furniture to foreign markets because they have been used to focusing on domestic customers, whose tastes differ significantly from those of foreign customers. For example, domestic customers are not accustomed to dramatic changes in the styles of furniture since they do not change their furniture as often as middle- to high-income customers in the advanced

industrialized world, which is the preferred target for exports in this sector. Manufacturers in this sector are also accustomed to producing the same product for a variety of clients, while international distributors in the advanced industrialized world are accustomed to having their suppliers provide them with a variety of products. As will be seen under the section on product upgrades, these differences present a distinct challenge to Argentine producers seeking to sell their products to countries like the United States.

In the 1990s, the convertibility plan (the pegging of one peso to one dollar) had a profound impact on the operations of wooden furniture producers in Argentina. Although it enabled firms to import new machinery at relatively low costs, it also exposed firms to increased competition from foreign producers. Imports from Brazil in particular served to undercut many producers, causing some to go bankrupt. This problem was exacerbated by the decline of the economy in the late 1990s, in part driven by the Brazilian devaluation. Some of the firms that survived were only able to do so because they were exporting. The companies that took advantage of the pegging of the Argentine peso to the U.S. dollar to buy new machinery were particularly well positioned to export. The upgrade in quality of these machines enabled firms to cut and mill wood more precisely, thereby enabling them to target higher-end markets abroad, since even higher-end consumers in Argentina do not pay as much attention to detail as similar clients in foreign markets like the United States, the major importer of Argentine products from this industry.

The firms that exported during the 1990s generally did not view this activity as one that required a separate strategy, but rather as an activity to be undertaken merely to survive until the internal market recovered. In essence, manufacturers in this industry viewed foreign markets as secondary to the domestic ones. Hence, they tended to export excess stock or take advantage of specific opportunities that may have happened to appear. The vast majority of firms did not have a specific export strategy nor did they produce products that were only for export. The furniture that they did export was generally the same as what they were selling domestically.

The crisis of 2001–2002 was a turning point. It convinced a growing number of firms to develop specific export strategies that went beyond merely relying on foreign markets as a means for surviving fluctuations in the domestic market. They began to see these markets as a potential source of consistent growth and revenue. These firms realized that in order to fully tap into these markets, they would have to develop products targeted specifically toward those markets and

they would have to establish consistent contacts with distributors. Although some firms in the industry have the vision, many of them do not know quite how to implement it. They know how to produce high-quality furniture, and they have the proper technology and training to do so, but they lack the ability to adapt their products to the styles and demands of different countries and to actually sell their products abroad to a limited number of distributors on a consistent basis.

The export orders that firms receive can potentially be significantly larger than what they can get in the domestic market. Ivope and Mehring, two of the leading firms in this sector, have occasionally had to turn to other firms in the industry to help them meet such orders; Ivope, for example, had to ask Mehring for help with an order for a Disney hotel in Florida. If done well, some firms in the industry believe that exporting can be more predictable than selling furniture on the domestic market. As will be seen with the counterfactual case presented below, those firms that do not make the necessary upgrade tend think the domestic market provides more stability.

Many firms are unwilling to undertake the long-term commitments needed to develop ongoing relationships with foreign distributors. As outlined below, firms need to change the manner in which they produce products for export in order to meet the high levels of quality demanded from the most attractive markets, such as the United States. Even after making such changes, it customarily takes more than a year before a company can sell its first container of furniture. Many companies try once or twice to export in this new way and then give up because they do not have immediate success. And even if they are initially successful, they have to work hard to meet new demands the same client may have. Wooden furniture manufactures seeking to tap into demanding markets in advanced industrialized countries need to change their understanding of how to conduct business and of what quality means for clients in such countries. The changes required to properly serve such international clients require investing in change, not in new machinery.

Although some Argentine firms are receiving more orders to produce a greater volume and variety of products, this has not caused the firms to adopt the German model of greater scale through mass production using automated machines. This type of production simply does not suit the high-end products that most exporters in this sector produce. Like the Italians, these firms have to be able to change their production quickly to meet changes in styles and dimensions. Mass-standardized production makes this type of flexibility difficult, if not impossible. Even the

counterfactual case presented below has not shifted to this type of production despite the fact that the changes that firm makes to its products in order to export are quite minimal, if any. The fact that the firm receives orders for a wide variety of dimensions rather than a wide variety of styles, combined with difficulties in financing large-scale “upgrades,” makes the firm reluctant to even think about such a dramatic change in its production style.

Some of the initial growth in exports after the 2001–2002 economic crisis can be explained by firms that saw no alternative but to export what they had originally intended for the domestic market. As the economy began to strengthen in 2003, these firms tended to reduce their exports and shift back to producing primarily for the domestic market. Such firms clearly did not embrace the new export model. Nevertheless, now that the domestic market has started to level off, some of these firms have recently started thinking about embracing this new export model. But clearly, they are lagging behind those firms that embraced the export model after the 2001–2001 crisis.

7.4.6 Domestic Business Model versus Export Business Model

The 2001–2001 crisis provided firms in the sector with an opportunity to re-examine the manner in which they were exporting. Many firms did not take advantage of this opportunity, and reverted to traditional practices once the internal economy recovered. Those companies that did take advantage of the opportunity are still largely in the midst of fully understanding and implementing a new export business model. The challenge of this new model is that firms need to change their understanding of what they need to do to export consistently over time. Basically, they have to change the way they work and not the actual machines they use. They have to pay attention to details, whether these involve ensuring the finish on a table top is consistent or ensuring that they are able to meet the wide variety of demands of their clients. In short, embracing the export business model means firms must upgrade their products as well as their marketing.

Contemporary furniture would seem to be the proper market segment for wooden furniture manufacturers in Argentina. By focusing on this sector, they could avoid competing directly with countries that offer significantly lower wages. Focusing on this particular market segment would enable manufacturers to tap into the traditional carpentry skills of workers in this sector as well as into the institutional structures that emerged during the twentieth century to

support this type of work in Argentina. In order to compete effectively in this market segment, firms have to be able to consistently develop new products. By focusing on developing new products rapidly, wooden manufacturers can move up-market within the contemporary furniture niche and avoid competing with lower-cost producers. The particular challenge for pursuing this strategy is the ability to continually design furniture that meets the changing styles of consumers in selected target markets. Although Argentina is not well known for its design, it has the ability to produce designers with the capacity to develop new products in this manner. The next section discusses what is involved in upgrading products and marketing in this sector.

Product upgrade. The majority of exporters in the Argentine furniture business focus on the upper segment of this market, namely contemporary furniture. In recent years, consumers in this part of the market in advanced industrialized countries have started buying new furniture in accordance with shifts in style. Consumers of contemporary furniture with more limited resources do not tend to change their furniture as often. Consequently, this latter type of consumer is likely to buy furniture by producers outside of Argentina that are more likely to have a system of production resembling the German model.

Argentine producers would seem well suited to producing furniture for the upper end of the market since their production system is more flexible than that of countries with more mass-standardized systems of production. Argentine manufacturers cannot compete with the scale of production that firms in these countries can produce, or with the low wages paid by their main competitors, namely Brazil, China, Vietnam, and Malaysia. Consequently, Argentine firms have to build on the strength of their flexible production system by seeking clients that want smaller batches, but with more value added. Firms in Argentina also face competition from more flexible producers abroad who can copy designs and produce the same furniture at lower costs. Hence, the vast majority of Argentine producers have to focus not only on manufacturing high-end furniture, but also on changing the designs of the furniture they make.

In essence, Argentine manufactures of wooden furniture have to develop their own designs and work seriously over time with their distributors. Only by developing such relationships with their international buyers can they avoid the possibility that a distributor will not act in an opportunistic manner to the detriment of the manufacturer. Firms that simply pursue sporadic, one-time sales are more likely to be victims of this type of behavior.

Designers are critical for wooden furniture manufacturers in Argentina. They have to know how to adapt furniture to the particular tastes of a target country while at the same time keep up to date on the changes that are occurring in the living habits of people in other countries. Thus, they also have to be perpetually developing new products for a company's target markets. This task is complicated not only by the fact that tastes and styles can be dramatically different from those in Argentina, but also by the fact that they change over time.

One example is how the introduction of plasma televisions in the United States—a product which is just starting to significantly penetrate the Argentina market—impacted the production of living room furniture. When these televisions were introduced in the late 1990s, firms had to create furniture to fit them. They also had to find ways to highlight the size of the television in the furniture designed to hold it. As this market became relatively saturated toward the medium and upper end, firms had to design new types of furniture to hide these televisions.

Another example is the recent trend for people in the United States to buy furniture that looks like antiques. Giving the furniture this look does not require any change in production; it merely requires that someone strike the furniture with a sharp object before it is stained. Some consumers in the United States are looking for dining room tables up to three meters (9+ feet) long. Making these tables does not require different machines; rather, it requires calibrate the existing machines differently. However, firms do have to find ways to design such tables so that they do not warp over time. But it is a design problem, not a production problem.

Tastes and styles within a country can also differ. In the United States, for example, tastes and styles vary across regions. People in Chicago generally will not buy the type of furniture sold in New England, and people in New England generally do not like the type of furniture sold on the West Coast. Ivope, for example, sells almost all of its furniture on the West Coast. It has tried to sell its products on the East Coast, but has not been very successful, partially because the company's furniture is very large and dark with a slight American Indian style, traits that are not highly valued on the East Coast.

In general, it is difficult for manufacturers in Argentina to sell pieces of furniture designed for U.S. markets in the domestic market or in other foreign markets. The dimensions of the furniture are much larger than those found in Europe and Argentina. The large size of living quarters in the United States as compared to these other countries is one of the reasons why there

are such differences in styles. Because of such differences, firms that seek to sell their products in more than one foreign country have to adapt their furniture to each country.

In some cases, however, the tastes and styles of certain countries end up being quite similar to that of consumers in Argentina. Mehring discovered that it could sell the same table and chair sets in Spain that they sell in Argentina. But such cases are indeed rare, so firms need to study their potential markets carefully. It is quite possible that a firm can fail to export a particular piece of furniture even when the quality is exquisite simply because it does not fit the current tastes of the target country.

Manufactures seeking to export on a consistent basis are under pressure to develop new products rapidly. While Mehring attempts to develop new products every two years, Ivope tries to have at least one new product ready for the world-renowned trade fair in High Point, North Carolina that takes place every six months. This trade fair is the most important in the world, with more than 750,000 square meters of showroom space. Manufacturers and buyers from countries around the world travel to High Point twice a year to learn about new developments in the industry and make commercial contacts. The innovations that firms make for this trade fair are not necessarily radical ones. Sometimes they are nothing more than new variations on older products. Ivope, for example, recently introduced new tables with metal instead of wooden legs. Mehring recently started producing chairs with leather instead of its traditional cloth covers. In developing such products, companies have to pay careful attention that they do not cannibalize their existing products. Ideally, firms would like to continue selling their older products while at the same time expanding their market share with new ones.

Although Argentine universities are producing qualified wooden furniture designers, only recently have producers demanded trained professionals who know how to design furniture for other countries. In the past, companies sold Argentine designs, so there was no need for professionals with these skills. It is important to highlight that the quality of the designs in Argentina is relatively high. But these designs are simply not the designs that foreign customers want to buy. Quality is not the issue; style is the problem. Most local designers appear to lack the skills necessary to adapt products to the tastes and styles of different countries. Ivope works closely with its sole client in the United States to design products for that country. Other firms work with intermediaries in the United States, such as Jorge Etchebehere and his sales representatives, to adapt their products to the U.S. market. These intermediaries sell the furniture

of these producers in the United States. They travel to Argentina to give local producers general advice about styles and trends in that country. With this information, designers are more than capable of producing designs of the types of products desired. These designers do not need new skills but rather, like the firms for which they work, they need to develop a new way of approaching what they are designing. In this sense, what they are missing is information and very specialized training in the particular customs and habits of the country for which they wish to design furniture.

In order to produce the type of furniture being demanded by consumers in advanced industrialized countries, wooden furniture manufactures do not have to invest in new machinery. Changes in designs only require recalibrating the machines to produce products with different measurements. For example, the dimensions of chairs and beds in those countries are larger than those found in Argentina. Therefore, producers simply have to make pieces a little larger. In developing a new product, a company may decide simply to change its legs. Hence, the need to make new matrices for this part is the only change that needs to be done. These matrices are simply put in standard machines that cut or mill along the given pattern. The actual work of the operator of the machine does not change nor are new machines required to make this part. If the part is particularly complicated and requires a numerically controlled machine, firms tend to outsource the production of the particular part to suppliers that have such machines. Even for those companies, the actual work only requires reprogramming the machine to perform a particular operation. A worker who has learned to program the machine can produce practically anything required for a piece of wooden furniture. The actual assembly process for a chair with larger dimensions or a table with iron legs is basically the same.

As far as production is concerned, the critical difference between furniture produced for the domestic market and furniture produced for export lies in the attention to detail paid by the workers performing a particular task. Producing products for export does not require workers to develop new skills, but rather to develop new ways of operating that focus on small details that make the difference between a product for the domestic market and one for export.

Workers in Argentina are not accustomed to paying particular attention to the exact size of the pieces of wood they are cutting. If it is one half of a centimeter more or less than what is stipulated in the design, consumers on the domestic market will still buy it, but foreign distributors will reject it. The same is true for staining. The domestic market does not require that

a particular piece of furniture consisting of two separate pieces in the same set, for example, to have a consistent color. Variations even in the color of the surface of a table are acceptable in Argentina, but not in demanding international markets in the advanced industrialized world. Differences in color across a surface are not the result of problems in the staining process, but rather customarily of problems in the drying process. Argentine firms that have the ability to export generally have their own machines for drying wood. Their workers also know how to use them. The problem results from workers not paying careful attention to the drying process. Workers also cannot use wood that has knots in it for products that are intended to be exported. For the domestic market, this detail is not important. Packaging is also a consideration. In the domestic market, firms do not have to worry about how their products are boxed, but it is an important issue for exports. Foreign clients want nice boxes without any marks that could indicate damaged furniture.

In general, international customers are more critical about details than the usual customer in Argentina. Even people who work in the wooden furniture industry in Argentina sometimes do not detect minor flaws that are obvious to people in countries like the United States. Hence, it is generally important for firms to have some feedback from consultants familiar with these issues before they attempt to export to advanced industrialized countries. All of these details have to be addressed for a distributor to consider buying a piece of furniture from an Argentine producer. The problems are relatively small, but if they are not addressed, firms will have difficulties in consistently making sales to a particular country. Quality upgrades can prove to be a positive spillover for the domestic market as companies learn to produce higher-quality furniture. Nevertheless, for this upgrade to occur, workers have to become accustomed to working in a different way. Once they have developed “quality habits,” working in this way will become a routine.

Manufacturers in this industry also have to ensure that their suppliers are producing component parts that meet these requirements. The formation of an industrial district along the lines of the one that exists in Italy could help address the problem of diffusing this information to suppliers in Argentina. Although some suppliers can produce component parts at the level of quality required for exported furniture, they are usually reluctant to invest in matrices. A leading export firm claimed that its suppliers do not have problems producing necessary components. The difficulty emerges in convincing the supplier to invest in the production of specific matrices

necessary to produce these components. The quantity of parts demanded by the client did not justify the supplier's investment in making these matrices. The firm says that sometimes it can convince suppliers to produce the necessary matrices by explaining that other firms exporting to the United States will need the same component parts. The problem of scale requires firms to seek ways to convince their suppliers to make the investments required to properly supply what the firm is demanding. With greater coordination between suppliers and their clients in this industry, perhaps through an industrial district, this problem could be addressed.

Marketing upgrade. In addition to the problems associated with designing and producing products properly for export markets, firms in the wooden furniture export business in Argentina also face a significant problem in moving beyond sporadic, one-time exports to a consistent export strategy. As outlined above, this switch involves a dramatic transformation of the manner in which the vast majority of exporters conducts business. For example, they will no longer be able to simply export excess stock. They will have to change the way in which they conduct business with foreign clients. And they will have to begin working closely with a limited number of distributors to develop a variety of products over time. Although Argentine producers have traditionally handled limited volumes of production for export, they are nonetheless not accustomed to meeting the specific demands of their distributors. If an Argentine firm can prove to a distributor that it can meet the distributor's requirements, then the distributor is likely to work with the firm in the future. If not, the distributor will look for another manufacturer. What might appear to be a one-time contract for specific goods can end up turning into a long-term relationship if the manufacturer takes the time to ensure that a contract is fulfilled in the way the customer desires. There seem to be sufficient distributors looking to work with wooden furniture manufacturers in Argentina. The challenge for Argentine firms is not only to change the quality of their work, as outlined above, but also to change their perceptions of how to work with distributors. They have to invest time and money in developing relationships with them instead of just seeking sporadic deals that can be terminated quickly.

In the past, Argentine wooden furniture manufacturers simply sold what they had or made specific products to order. Now, they are finding that distributors frequently want a larger variety and volume of goods than one producer can provide. If the manufacturer is unable to deliver the variety desired, the distributor is likely to look for a different partner. Even firms that

can meet the demand are reluctant to increase the size of their operations due to fears that foreign demand may not be stable or that macroeconomic conditions might change.

Hence, leading firms in this sector often turn to other manufacturers for help. But organizing the production of the goods across different firms can prove to be difficult. Problems arise because many companies simply either do not fulfill their obligations or send products that do not meet the quality standards of consumers in the developed world. In order to avoid this, the export manager of Mehring works very closely with the other companies with whom he contracts for foreign orders to ensure that the size, color and consistency of the required products are correct. He often tests firms with small orders to see if they can meet the quality requirements. He monitors their operations closely because he knows that if bad products are sent under his name, it can damage his reputation and lead to a decline in Mehring's international sales.

In order to work more closely with the firms that supply Mehring with furniture for export, the company has started to form an industrial district based on the Italian model in order to resolve this problem. Mehring contends that the industrial district is one of the keys to Italian success in this business. Except for these districts, Argentine furniture manufacturers would seem to possess almost all of the resources they need to directly compete with Italians in this market. They have the raw materials and knowledge to produce furniture at the same level of quality as their Italian counterparts. The prices that some Argentine manufacturers have received for their products in this segment would seem to indicate that they are more than capable of competing directly with the Italians. In addition to lacking an industrial district, Argentine manufacturers also have to contend with the fact that the Italian designers are widely recognized in this field and that manufacturers tend to associate themselves with well-known designers. This is a challenge for Argentina, which is decades behind its Italian competitors. However, Argentine firms are undertaking initiatives to catch up. Intermediaries like Jorge Etchebehere are attempting to strengthen the capacity of local designers so that they can compete with their Italian counterparts.

There is general agreement in the industry that firms have to develop relationships with distributors who can act as their partners in foreign countries. Companies have to move beyond the mentality of looking at each sale as an isolated event. The key is selling greater quantities and varieties to the same distributor rather than looking for new clients. Firms can even choose to work with just one distributor in a particular country. Although the vast majority of wooden

furniture makers in Argentina are targeting the upper segment of the market, brand names are not usually important. The final customer usually is not even aware of the name of the company that produced the furniture. Clearly, a brand name can help generate business with a distributor, but it is not necessary for wooden furniture manufacturers to invest time and money in developing and marketing their brand name via advertising campaigns. Instead, they need to build a reputation for their company through their ability to meet the varying demands of their clients in a timely way with products that meet the quality standards demanded by consumers in the advanced industrialized world.

Despite the fact that brand names would appear not to be important for this industry, the idea of having a country trademark is appealing to most companies in this industry. If Argentina became known for producing good furniture, there is the potential for all the firms in this sector to grow. The U.S. market alone could more than accommodate all manufacturers in Argentina. Even smaller markets can potentially be big markets for this sector. The fact that many leading companies are helping firms to upgrade the quality of their production indicates that firms are not afraid of the diffusion of knowledge within the sector, as it could lead to larger sales for all of the businesses in the sector. Their greatest fear would seem to be the possibility that companies not serious about exporting can undermine the image of those that are.

This is an issue that the Argentine Federation of Wood Industry (FAIMA) is attempting to address. While the Federation does not want to prevent firms from exporting, it does not want to undermine the success of those who have established themselves as quality producers. FAIMA believes that some type of quality certification is necessary for furniture exported from Argentina. It is working with a group of Italian industry specialists to develop the certification. Though the Federal Council on Investments encourages everyone to participate in export-boosting activities such as trade fairs, some observers in the industry believe that not all Argentine producers should be allowed to display their products at the internationally renowned trade fair of wooden furniture manufacturers in High Point, North Carolina. Attendance at this biannual trade fair is almost obligatory for any company that wants to export to the United States, as it serves as the main arena for companies across the world to demonstrate their new designs and meet with U.S. distributors. The observers contend that Argentina needs to be associated with a high-quality product, and that companies must first prove they can make new

designs and produce good products at reasonable prices before being allowed to participate. Otherwise, less rigorous firms can undermine producers who are producing to those standards.

Those firms in this sector that obtain contracts to export to a foreign country and do not fulfill these contracts with furniture that meets the quality standards of that country can undermine the possibility that the distributor involved will work with the firm in the future. Companies in this sector that operate according to the old business model sometimes look for export contracts when their sales on the internal market decline and then abandon these contracts in mid course when their sales on domestic market pick up. This behavior clearly undermines the possibility that the distributor involved will work with the company in the future.

Adapting to the new export business model also requires firms to change the way in which they fulfill their contracts. In the domestic market, delivery and payment times are often negotiated after a contract is signed and even after the terms are set; it is understood that there is some degree of flexibility. This means that a manufacturer can delay shipping products and buyers can delay paying without severe repercussions. However, such behavior is intolerable in the international market. Hence, firms have to learn how to work in different ways when they choose to export. These issues appear to be minor, but they can make the difference in the success or failure of a company's exports. Some wooden furniture manufacturers that have adapted their products to the styles of a particular market have been able to export without having to change their back-office procedures. However, successful companies quickly realize that they need to pay attention to these issues if they are to continue exporting consistently to countries like the United States.

In the end, firms in this sector have to make a long-term investment in changing their back-office operations and in addressing the quality concerns of their potential clients. Investments in new machinery would not appear to be a critical issue. However, firms have to make concrete capital investments in developing their foreign markets. They have to be willing to travel, spend money, participate in trade fairs, and even send some of their products free of charge to potential clients abroad. Furthermore, they have to deliver quality products in a manner that accords with the specific demands of their clients. Many firms either do not understand that they have to make such investments or abandon the new export model when they realize how much time and effort it takes to convert their operations to meet the specific demands of foreign clients.

7.4.7 Pioneer

Jorge Etchebehere is a commercial agent who not only fully understands the new export business model, but also helps firms to implement it by directly working with them to upgrade the quality of their production and the way they market their products abroad. His experience selling furniture in the United States taught him that people from the United States are obsessed with quality and customer service, and that Argentine wooden furniture manufacturers need to pay attention to the smallest details in design and production in order to effectively export their products. Finally, his work with sales representatives he hired from the United States to help manufacturers adapt their furniture to the tastes of upper-end consumers of wooden furniture in the United States enabled him to begin training Argentine designers to adapt furniture to the tastes of consumers in that country.

Although he is technically a commercial agent working to export wooden furniture, he is in reality more like a consultant. His only direct source of income is the commission he earns on the sales that he makes in the United States. He offers his “consulting” services to his potential clients because he believes that if these firms do not adopt the new export business model, he will not be able to export any of their furniture. In this sense, he is acting to diffuse knowledge about the export business model while at the same time trying to benefit from the diffusion of this knowledge. He often visits his clients’ factories to help them make the product and market upgrade. With regard to the former, he shows them how small mistakes in the production process lead to quality problems that will not be tolerated by customers in the United States. He also explains to them that they have to be careful about the way they dry their wood as this affects the consistency of the staining process. He also brings his sales representatives from the United States to show his clients how to adapt their products to the tastes of consumers in that country. As for the market upgrade, he works directly with the owners of these companies to convince them to commit themselves to an export project and to fulfill their promises. Etchebehere is still in the primary stages of establishing his business. Although he represents a number of different companies in the industry, his total sales for any particular year are roughly on par with that of the tenth-largest exporter in the sector. The most significant problem he faces in expanding his business is convincing the firms he represents to be committed to the project of fully implementing the new export business model.

Jorge Etchebehere began to understand U.S. culture at the age of 16 when he was an exchange student in New Jersey for three months. He later used this knowledge when working for an Argentine company selling seeds and fertilizers provided to the company by Monsanto. Although he did not work directly for Monsanto, he received training in sales and marketing on a regular basis by the company's representatives, who traveled to Argentina from the United States for that purpose. Etchebehere, who spoke English, helped the representatives with the presentations they made in Argentina and interacted with them on a social basis as well.

In 1991, he began working as a sales assistant for Genoud, an important manufacturer of furniture in Argentina. During the first two years, he traveled around Argentina selling furniture, but then the president of Genoud decided that Etchebehere should sell the company's furniture abroad. Etchebehere took a six-month course from a local university and soon left for his first trip to the United States as a sales representative for Genoud. During that trip, he realized that the products he was attempting to export would not sell themselves, and that potential clients were asking for detailed technical information he could not provide. Consequently, he did not sell anything on that trip. Although other Argentines in this industry returned from similar trips thinking that the foreign companies simply did not like their products, Etchebehere's experience with U.S. culture taught him that this was not the case. The people he met on his trips just wanted more information about his products. So Etchebehere returned to Genoud's factory to familiarize himself with every step of the production process. He also took advantage of the fact that the president of Genoud was at that time also the president of FAIMA, and traveled around the country with him visiting different wood furniture producers. Six months after his return to Argentina to familiarize himself with how furniture was produced there, he returned to the United States and began selling furniture for Genoud, and began receiving a number of different orders for a variety of furniture products.

As a result of this experience, Etchebehere realized that he did not have to limit himself to selling furniture for just one Argentine company; he could represent many of them in the United States. In 1997, he decided to create his own company, and he moved from Pergamino, where Genoud is located, to Buenos Aires. He placed an advertisement in a trade magazine in the United States indicating that he was looking for sales representatives and received 20 resumes. He sent pictures of the furniture being produced by various Argentine companies to all of the people who responded to his advertisement and one of them, a designer, wrote him back

contending that none of these products could be sold in the United States. He told Etchebehere that the furniture was well made, but was not designed in a way that would appeal to consumers in the United States. Etchebehere hired this designer to come to Argentina to help companies adapt their products to the styles and tastes of the United States. While he was undertaking this activity, he also managed to help Fontenla, one of the leaders in this industry, to sell its first shipment of furniture to the United States. He has also helped Mehring establish commercial contacts in the United States.

In 2001, Etchebehere developed a project with the Federal Council on Investments (CFI) to help manufacturers of wooden furniture learn how to upgrade the design of their products in order to export. He organized meetings between various companies and two specialists on U.S. furniture to teach the manufacturers how to make products suited to the U.S. tastes; this project is described below in the section on diffusion.

In 2003, Etchebehere hired two sales representatives in the United States with more than 30 years experience in the industry there. Together, they formed Argentine Resource Goods (ARG) to sell furniture in the United States. ARG represents the interests of eight Argentine wood manufacturers; although Mehring is one of the companies that ARG represents, Etchebehere mainly serves as an agent for them. ARG has a warehouse in Washington D.C. and a 300 sq. m. showroom where distributors can see furniture made by the eight Argentine manufacturers that ARG represents. The warehouse enables potential buyers to purchase merchandise from several different Argentine companies without having to wait for delivery from Argentina. Etchebehere's partners in ARG work on commission, so when they come to Argentina to provide advice to potential clients, they do not charge their potential clients for the service. They work with the clients in the hope of being able to sell the manufacturer's products in the United States. In many respects, Etchebehere's commercial structure resembles that of the industrial district that Mehring is in the process of creating. Mehring, like Etchebehere, exports furniture produced by other companies. It also works with these companies to help them make the necessary product upgrade.

ARG representatives come to Argentina on a regular basis to help Argentine firms adapt their furniture to the tastes of people in the U.S. market by improving the quality, packaging, and even the pricing of their products. During their meetings, they provide the producers with advice on measurements, dimensions, sizes, weights, and general appearance, and their assistance is

critical because they often detect the type of quality errors mentioned above. But they also go beyond just providing technical assistance; they also provide very detailed advice about styles and tastes in the United States and give local designers an understanding of how their potential clients live, what criteria they have for choosing furniture, what colors they like, how they eat, and how they place furniture within their homes. This information helps designers understand the particular tastes of the final customer in the target market. In these meetings, Etchebehere attempts to create a dialogue between the representatives and the firms he represents. This interaction enables firms to produce unique pieces of furniture that they can position well in the market. Etchebehere contends that it is important to start the process by thinking about what design and quality characteristics clients abroad are seeking and then going back to the design and production process to see how these issues can be addressed. Etchebehere believes that it is critical to involve managers in every part of the production process in these meetings. As mentioned above, this is a long-term investment that can take years to yield results. Etchebehere contends that firms have to understand that it may take a lengthy period of time before they can actually sell anything abroad. Some producers are just not willing to invest the time; many stop trying to export if they do not succeed after their second attempt.

7.4.8 Diffusion

No firm in this industry fully understands all of the components of the new export model outlined above and therefore, no firm has fully implemented it. Although Etchebehere does understand every part of the model, he is still in the process of convincing firms to implement it. Therefore, diffusion is not complete.

Nevertheless, there are some firms in Argentina that have implemented parts of the business model. Mehring has come the farthest. It understands and has fully implemented the components of the product upgrade, but has yet to fully understand and implement components of the marketing upgrade, and has yet to develop long-term relationships with distributors to whom it can consistently supply a diverse range of furniture. Ivope, on the other hand, has pursued a business model distinct from the one outlined above, one that has not diffused within the industry. Ivope is distinct from other companies because it does not conduct any sales from Argentina. It only produces its furniture there. The company's design process largely occurs in the United States. Its sole distributor is its majority shareholder, who lives and works in the

United States, selling furniture from Ivope and another company in Peru. Each case is discussed in turn.

Mehring. Gerardo Mehring founded his company in 1953. In 1980, he decided to begin making the necessary changes required to export his products. At that time, he did not have any international clients, but he knew that he would have to upgrade his facilities to be able to export in the future, so he went to Italy to buy new machinery because the exchange rate made the purchase of machinery abroad relatively inexpensive. With the new machinery, he created the first production-line factory in this industry in Santa Fe. Until that time, all of the producers in that province were organized like traditional artisan shops.

The process of developing foreign clients took some time. In the late 1980s, Mehring tried to gain access to foreign markets by taking some of his chairs to foreign embassies along with a hand-written letter in which he explained what his company was producing. His idea was that the embassies would send the furniture back to their home countries and hopefully make some contacts for his business. His first real experience with exporting did not come until 1988, when the company sent a shipment to Uruguay and became the first furniture company to ever directly export from Santa Fe. Mehring had realized that some wholesalers from Uruguay had been buying his furniture from shops in Buenos Aires and shipping it to their country. Hence, he decided to try to ship his furniture directly. However, he stopped exporting to Uruguay shortly thereafter due to the high tariffs and the bureaucratic difficulties imposed by Argentine customs.

In 1990, Mehring was approached by Reno, a kitchen furniture manufacturer, to produce a futon sofa bed. Despite having never produced a futon sofa bed before, Mehring agreed to do so. Reno sent a designer to the Mehring factory in Argentina to help them design the bed, and Mehring still exports sofa beds today. However, the company's market share in the United States declined significantly in the late 1990s, due to competition from companies in Asia. Although futon sofa beds were unknown in the Argentine market before Mehring started exporting it, the company actually sells more of this product on the domestic market than it exports. Up until this point, Mehring had not made the transition to specializing in contemporary furniture.

The greatest problem Mehring faced during the 1990s, and to some extent still today, is the volume of furniture demanded by clients in the United States. The company has lost U.S. clients because it has not been able to meet the volume demanded by these clients. Mehring felt

he needed time to grow, but the orders were coming in too fast, and he knew that with his existing capacity he could not meet this demand. Nonetheless, the company continued to export even though it was losing money because it recognized that exporting was a long-term investment. In the late 1990s Mehring began working with local firms in an attempt to provide clients with a greater diversity of products, but the firm still has trouble finding producers who can upgrade their production to meet the requirements laid out in the section above on product upgrade. By relying on sporadic sales, the firm is unable to sustain a constant level of sales and, perhaps for this reason, is unwilling to make an investment in a further expansion of its operations.

During the mid-1990s, Mehring learned a lot about the U.S. market by attending the internationally renowned trade fair in High Point, North Carolina, where he met some potential clients and learned how he would have to adapt his products to meet the particularities of that market. This was the beginning of a learning process. Upon receiving a contract to make folding director's chairs, Mehring discovered that U.S. consumers like to assemble their own chairs. Hence, Mehring workers learned they had to separate the different parts of the chairs into different bags, and write assembly instructions with illustrations showing how to put the chairs together. Although this type of work was a total change for Mehring, it gave the company a taste of what it would have to do in order to continue to export.

In the mid-1990s, Mehring was not yet designing its own products for foreign markets, so its U.S. clients, including the one who wanted the director's chairs, made the prototypes and worked with Mehring to adapt the prototypes to the particularities of the company's production process. One of the most important problems Mehring faced at this time was the differences in standard measurements for furniture between the two countries, which required the firm to have to adapt the prototypes made by its clients. To have reproduced the prototype exactly would have required totally different machinery, and Mehring realized that it was not really necessary to buy new machinery since the company could simply adapt the product to its existing capacities. The buyers seem to have tolerated the differences in measurements.

In 1997, Mehring learned the importance of integrating design into its export business model after a client in Puerto Rico said it could have its prototype made more cheaply in Brazil. However, the client said it was willing to buy products from Mehring if the company designed them itself. Mehring hired two designers, and three years after the initial contact, the company

started exporting chairs it had designed itself to the client in Puerto Rico. These chairs were soon followed by tables and then bedroom sets. Because Mehring only produces chairs, the company contracted with local firms to make the tables and bedroom sets. This experience demonstrated to Mehring that it could not compete with the Brazilians in the lower end of the market; instead, it would have to move upmarket and begin competing directly with the Italians.

At the High Point trade fair in October 2000, the Association of North American Furniture designers awarded Mehring and Saloon, a U.S. manufacturer of tables to which Mehring had sold chairs since 1998, its highest award for the Dynasty Collection. The chairs that Mehring sent to be part of this collection were the same that the company was selling in the domestic market. Nevertheless, after winning the prize, Mehring began to work with Saloon to develop new models every year for Saloon's stand at the trade fair.

In 1998, Mehring began working with a local designer, Elisabet Arn, to adapt the company's products to the tastes and changing styles of people overseas. Arn was trained in Argentina and Italy and had worked for FAIMA and CFI on projects with Jorge Etchebehere to diffuse information about how to adapt furniture to the styles of other countries, so she was therefore more than capable of approaching design from a foreign perspective. Arn, who works on commission for Mehring, contends that it is necessary for designers to be involved in every part of the production process. Shortly after she began working with Mehring, the company sent her to Italy to learn about Italian industrial districts; Mehring believed that this model of organizing production and sales could help the company meet the challenge of selling a greater volume and variety of products.

Enrique Mehring, the production manager, had gone to Italy in 1992 to buy new machinery and had returned interested in Italian industrial districts. This model appealed to Mehring's management because it showed how a group of independent firms could work together to manufacture and sell products. The Italian embassy and experts from Italy helped Mehring construct the district, which now includes 28 firms.

Mehring is in charge of the design and production of products made by firms in the district. Each firm produces the products and/or undertakes the production processes for which it has expertise. Furniture produced through the district is then sold under the Mehring name. In essence, Mehring acts as a broker by coordinating production and selling the final products. Being a member of this district does not prevent firms from selling their own products under

their own names. In fact, working in the district can help firms to improve the products that they sell under their own name because Mehring demands a high level of quality and shows the firms how to meet it. This knowledge spills over into the production that a firm undertakes on its own for the internal market.

Ivope. Ivope's business model is quite different from those of others in the sector and appears to be the result of pure happenstance—not of a careful analysis of markets and production capabilities by either Ivope or its partner in the United States. Ivope never successfully exported furniture on its own. All of its exports were funneled through its business partner in the United States. The success of this partnership enabled Ivope to discontinue selling its furniture in the domestic market and to dedicate 100 percent of its production to exports. The company never developed other channels of commercialization. Although it had to upgrade its products to meet the specific demands of its U.S. partner, it never upgraded the marketing component of its business model as this part of the business was handled by its distributor in the United States.

Ivope started out as a small carpentry shop in 1985 when domestic demand for furniture made with carob wood was just beginning to grow. Although Ivope was using this wood, it quickly discovered that consumers in the domestic market were generally not interested in the high quality level of its products. Consequently, the company decided to export and made its first shipment to the United States in 1990. However, the buyer of the shipment stopped payment on the \$30,000 check sent as payment for the furniture. Ivope met its future partner when attempting to recover its shipment of furniture. The future partner, Gerry Cooklin, also had a similar problem with the same person who had bought the furniture from Ivope. Cooklin, who is of Peruvian descent, owns Southcone, which is a distributor of furniture for a Peruvian company called Exportimo.

In 1991, Cooklin agreed to invite Ivope to share a stand with him at the trade fair in High Point. After successfully selling some of Ivope's furniture at this fair, Southcone agreed to become the distributor for Ivope in the United States. The style of the furniture sold by Ivope was similar to that sold by Exportimo. In 1995, Cooklin bought 20 percent of Ivope after one of the three founding partners decided to leave the company; the remaining 13 percent of that owner's share was split between the two other owners. Two years later, Cooklin bought another 40 percent of the company, making him the majority share holder. Southcone has one showroom in Los Angeles and another in San Francisco. It had to close a showroom in New York shortly

after opening it because of a lack of sales in that region. Ivope had never sold to anyone in the United State until beginning to work with Cooklin.

Southcone coordinates production between the Exportimo and Ivope factories. In general, Ivope produces chairs and tables for dining rooms, while Exportimo produces bedroom sets. Although the factory in Peru does produce some tables, 95 percent of the chairs sold by Southcone are manufactured by Ivope. Ivope does produce some lines of furniture for bedrooms and dining room collections together with Exportimo. However, the scope is limited as coordination between these two plants is rather difficult; for example, it is difficult to produce two pieces of furniture in different factories in different countries with the same consistency. Although Ivope does employ two designers, the basic designs of the furniture are created by Southcone.

The majority of Southcone's sales are in California, where the firm is based. California is well known for imposing a variety of legal restrictions on firms, especially with regard to environmental issues. Ivope ran into trouble in 2000 when the California state legislature passed a law requiring chair manufacturers to use fire-proof foam. It had to stop operations for three months to find a supplier of this type of foam that could get its product certified in the United States. In constructing export business models, companies should attempt to ensure that their sales are not limited to one particular state within the United States, since such difficulties can arise. Other companies in this industry contend that it is advisable for firms to ensure that their sales are not limited to one country, either, as such a focus makes a company too dependent on the economic situation of the country to which it exports.

7.4.9 Counterfactual Case

Despite the fact that Reno was one of the first companies to export from Argentina, it has not developed a new export business model. It continues to export practically the same products in practically the same way that it did more than 25 years ago. It is not advisable for other companies in this sector to adopt this business model, since it is rather unstable. Foreign competitors can quickly emerge to reduce a company's market share if, like Reno, it focuses on market segments with thin margins.

Reno, founded by Arcadigni Reno in 1956, was the first Argentine manufacturer to offer modular kitchen furnishings. This sector is particularly difficult because kitchen furniture is generally customized to the space of the client or imported in standard, relatively inexpensive

pieces from low-end producers like China. Reno traveled to Europe in the 1970s to understand the design and production of kitchen furnishings. In 1981, the company started exporting to the United States, and shortly thereafter, to Spain. Reno had a warehouse in Los Angeles in the first half of the 1980s but was forced to close it in 1986 because the firm was losing competitiveness. The company's second experience with exporting came in 1990, when it opened a subsidiary in Spain. From there it bought parts from all over Europe and sent them back to its plant in Argentina to be assembled. Reno later expanded operations in Spain to manufacture kitchen furniture there. Through its office in Spain, the company was also able to receive financing for its projects at much lower interest rates than what it could obtain in Argentina. Currently, international invoices represent 5 percent of the company's total sales. As mentioned earlier, Reno helped Mehring gain a foothold in the United States.

The products the company exports differ little from what it sells on the domestic market. It also customizes its products—the colors, finishes, and details such as drawer handles—the same way for both markets. Furthermore, Reno has not moved up market to produce higher-end kitchen furniture. Consequently, the high level of competition in its particular market segment means that its margins are rather slim, making it susceptible to changes in governmental policies in the area of exports. Those manufacturers in this industry that produce higher-end products have higher margins and are therefore better able to absorb reductions in their margins resulting from changes in governmental policies regarding exports. The fact that the company's margins are rather thin has prevented Reno from dedicating more than 20 percent of domestic production to exports. Reno contends that dedicating more than that could put his company at risk.

Reno's export strategy is partially shaped by Arcadigni Reno's first export experiences. In one of his first attempts to export furniture to the United States, he was forced to open a warehouse in Los Angeles and fill it with a six-month supply of furniture so that the buyer in the United States could be certain that Reno would not simply stop supplying him if Reno received a better offer. Because he was hoping to develop a long-term relationship with this buyer, Reno decided to open the warehouse, even though doing so caused him to lose money on the deal. However, the relationship ended two years later, when the buyer simply started working with a new supplier. Similar skepticism about the reliability of Argentine manufacturers of wooden furniture by a buyer in Spain caused Reno to change his strategy by opening up a factory in that country. Unlike other leading producers in the industry, Reno is actively developing a brand

name at home and abroad. Like one of the leaders in the wine industry, he contends that in the future, people will be more interested in brand names rather than the country of origin of a particular product. He believes that it would even possible in the future for him to close his factory in Argentina and start supplying the market from another country.

7.4.10 The Role of Government, Associations, and a Broker

The government appears to be only peripherally involved in promoting this export sector. It is indirectly involved through institutions such as ExportAR and the Federal Council on Investments (CFI), two important institutions for wooden furniture exporters in Argentina. Yet, these are not the only institutions helping with exports in this industry. The Argentine Federation of Wood Industry (FAIMA), an umbrella organization of different chambers of commerce in the wood-processing and wooden furniture industries, also provides assistance to firms in the sector. While ExportAR seems to concentrate solely on the commercialization of products abroad, the latter two organizations are directly involved in diffusing knowledge throughout the industry.

The Federal Council on Investments (CFI) is an organization born out of an agreement between the provinces of Argentina to work together to promote research and recommend measures for improving investment and development in the country. One of the Council's goals is to create social networks to bring technology and knowledge to groups that normally do not have access to these sources of growth. CFI has played a key role in diffusing knowledge about ways in which firms can upgrade their design capabilities. It tapped into the expertise of Jorge Etchebehere and Mehring designer Elisabet Arn to demonstrate to six groups of wooden furniture producers from five different provinces how they could adapt their furniture to the tastes of potential clients in the United States. The Council then brought buyers from the United States to view these products and help the producers develop prototypes. The success of this program inspired CFI to support a trip by the producers to the international trade fair in High Point, North Carolina. It rented 300 square meters of floor space to demonstrate the products that were developed with the help of the U.S. designer. Some of the Argentine firms participating in the trade fair were able to sell products that they developed with CFI's help.

CFI's bylaws forbid it to repeat such programs over the long term, but FAIMA recognized the value of the program and decided to take it over. Now FAIMA puts firms into contact with designers to help them adapt their products to foreign markets. The firms, in

collaboration with FAIMA, develop designs with an expert in the area, develop prototypes on their own, and then return to evaluate them with the designer. Like the plan developed by CFI, the idea of this project is to help firms go to the trade fair in High Point. There are about 15 companies participating in this program. Apparently, there are many companies in the sector that are looking for well-trained designers. FAIMA is also working closely with Elisabet Arn, Mehring's designer, to show Argentine designers in the industry how they can adapt their designs to international markets.

In general, FAIMA believes that wooden furniture producers have to take advantage of the current economic situation in Argentina to undertake programs to develop the sector so that firms will be ready when economic conditions are not as favorable. In addition to helping firms gain access to designers and developing a program to train designers, FAIMA is also working to help firms update their machinery and form export consortiums. These export groups enable firms to join together to travel to trade fairs such as High Point. They are really only intended for such purposes and do not involve any type of formal interchange on other issues. FAIMA also has a program to help firms share consultants, who address a range of common issues. It has also reached an agreement with two Italian companies to recondition CNC machines in Italy that are no longer being used by Italian producers. According to criteria established by FAIMA, machines used must be made after the year 2000. The two Italian firms that sell these machines also provide firms training on how to use them.

While FAIMA seems to be primarily concerned with issues of design and production, ExportAR deals exclusively with the issue of commercialization. It is a semi-private organization that promotes exports for practically every industry in Argentina. It helps firms make the types of contacts that can help them learn the importance of adapting their products to the needs of international clients. ExportAR provides firms with detailed reports on international markets and offers them financial assistance to travel to international trade shows, thereby not only diffusing knowledge about the sector, but also helping firms build their commercial contacts. The organization also helps firms form export consortiums, for which it covers the full salary of a coordinator for the first six months. ExportAR's contribution to the coordinator's salary declines by 25 percent every six months, so that by the end of the first two years, the consortia finance themselves. However, ExportAR's export group for wooden furniture does not appear to be very active. The coordinator of the group believes that it is impossible for wooden furniture

manufacturers in Argentina to sell their products in the United States, so he concentrates on selling furniture directly to retailers in Chile, Ecuador, Guatemala, Panama, and South Africa. This export group consists of mostly smaller producers, as none of the top exporters participate in this group.

Jorge Etchebehere plays a critical role in the diffusion of knowledge in the industry. He has worked with the CFI's design program and is currently working with the program that FAIMA created to continue this type of training. At the same time, he is actively trying to help Argentine designers learn how to adapt products to the styles and tastes of people in other countries. When he meets with firms and his sales representatives from the United States, he always tries to invite at least one designer to attend so that he/she can learn how to adapt furniture for the styles and tastes of that country. He believes that one day these designers will be able to design furniture without this type of help. However, for this to occur, they first have to learn how to do it. It would be easy for Argentine companies simply to take designs from U.S. designers, but Etchebehere is interested in strengthening the capacity of Argentine designers.

7.4.11 Public Policy

Public policy in this sector should be directed at diffusing the export business model. This would ensure that more manufacturers of wooden furniture would be able to export their products on a consistent basis and thereby provide these firms, and the economy as a whole, a steady source of revenue. The unwillingness of firms to dedicate time and resources to the development of a sustainable export business model causes them to rely primarily on sporadic sales that do not generate incentives to sufficiently upgrade their marketing techniques and products. In essence, firms need to change their approach to exporting and become aware that exports could be more sustainable if they were to adopt the business export model described above. Hence, policymakers should demonstrate the benefits of this new export business model and show them how to implement it. Once firms are convinced of the benefits of this model, policymakers can help them change the way in which they design and make products while at the same time helping them to learn how to build long-term relationships with their potential clients.

The ability of firms to successfully adopt a new export business model is inherently linked to the behavior of other firms in the sector. Firms that seek to adopt the new business model by working closely with suppliers and fulfilling the contracts that they make often run into

difficulties with distributors who have had bad experiences with other Argentine companies. Those firms that obtain contracts to export to foreign countries and do not fulfill these contracts with furniture that meets the quality standards of that country can undermine the possibility that the distributors will work with other Argentina firms in the sector. Some firms do not fulfill these contracts because they do not view exporting as a critical part of their business. Consequently, they look for export contracts when their sales on the internal market decline and then abandon the contracts mid-course when their domestic sales pick up. In general, Argentine wooden furniture companies are not known for fulfilling their contracts and, for this reason, many distributors simply refuse to work with them or they impose conditions, such as a firm establishing its own warehouse in the country to which a product is to be exported, as a means of dealing with this uncertainty. Such behavior undermines the possibility that distributors will see value in working with Argentine companies. Consequently, it hurts the country's trademark. Although the Argentine government is in the preliminary stages of trying to develop a country trade mark, its efforts would be in vein if companies do not live up to basic standards. Hence, public policy at this time needs to be directed at actually changing the behavior of firms rather than promoting a country trade mark.

In order to effectively deal with distributors in advanced industrialize countries, firms also have to change the way in which they are accustomed to conducting transactions. As mentioned above, Argentine firms are accustomed to changing the conditions of contracts, such as payment schedules and delivery dates, after a contract is signed. This is an accepted practice in the domestic market, but proves problematic in contracts involving customers in the advanced industrialized world. Hence, policy makers need to make firms aware of this difference in behavior and show them how they can change their operations so that they can fulfill their contracts in the manner expected by their clients in this part of the world.

Quality is also an important issue for international clients in the advanced industrialized world. Hence, it is important for policymakers to work with firms to improve the quality of their products in the manner described above. Although quality would seem to be an issue that can only be addressed at the level of the individual firm, it also becomes an issue when governments seek to promote exports by subsidizing participation at international trade fairs such as the one at High Point in the United States. If policymakers choose to subsidize any firm that wishes to participate in such trade fairs, they run the risk that low-quality producers will display their

products and thereby create the image that Argentina is a producer of low-quality goods. This problem is particularly acute for countries like Argentina that tend to display products from a range of firms at such trade fairs. Subsidizing the participation of low-quality producers is also a rather expensive way for them to learn basic ways to improve the quality of their products. One small producer of furniture for televisions returned from High Point without selling anything. While the producer was happy to learn that furniture for televisions in the United States is much bigger than in Argentina, the producer did not have to travel to the United States to learn this. Hence, policymakers wishing to assist such producers would do better to help them upgrade the quality of their products in Argentina before subsidizing their participation in such trade fairs.

Nevertheless, policymakers should not focus solely on how to improve the quality of goods produced by firms in this sector. They also have to be sure that firms are able to produce products that meet the tastes of consumers in advanced industrialized countries. If the quality is good, but the design does not fit these standards, clients in these countries will not buy the furniture being offered. Consequently, policymakers should work to promote the diffusion of such knowledge while at the same time ensuring that there are enough designers with the appropriate skills to adapt products to such markets. Perhaps they could promote exchange programs with Italian universities, since Italy is very adept at designing furniture to meet the needs of specific clients.

Even if the quality and the design of a product meet the demand of markets in the advanced industrialized world, distributors will not work with Argentine wooden furniture manufacturers over the long term if they do not change the way they conduct business. Hence, policymakers should work to ensure that firms in this industry are aware of these differences.

Once firms in this industry make the type of product and marketing upgrade illustrated above, they may find that they cannot handle a particular distributor's demand for volume and diversity. Italian industrial districts successfully address this problem. Hence, Argentine policymakers should consider advocating the formation of such districts in Argentina. They could work to promote the formation of organizations like ARG or industrial districts like the one created by Mehring. The former would provide small firms that have limited knowledge about foreign markets with an efficient mechanism by which to upgrade their designs and tap into these markets. The latter would enable firms to jointly meet the demand for volume while at the same time providing a forum where firms could share a designer and knowledge about

upgrading production techniques. Mehring is currently trying to get the government to pass a law that would enable him to formalize the industrial district he is creating. Companies that seek to operate such districts confront many bureaucratic and tax problems that could be resolved if such a law were passed. Mehring contends that the Italian law governing industrial districts is a good model and that the Argentine government should adopt a similar law.

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Appendix

This Appendix presents a brief statistical analysis of export performance in Argentina at the sectoral level. The objective of this analysis is to identify sectors that have been successful in exporting differentiated goods to developed economies.

We start with a database of Argentina's exports at the 6-digit level of the Harmonized System (HS). There are 5,427 HS 6-digit categories. We then aggregate data at the 4-digit level and use this level of aggregation to conduct the statistical analysis of sectoral export growth. Aggregation at the 4-digit level reduces the number of sectors to 1,328. In the majority of cases, we think that 4-digit categories best group sets of firms and products that share similar technologies, labor-skill needs, distribution channels, and marketing requirements.

We consider export growth between the average of the periods 1991-1994 and 2002-2005. The Argentine economy underwent a period of drastic trade liberalization that was mostly complete by 1991. Therefore, the choice of base period attempts to minimize the identification of sectors with emerging export activity driven by sectoral reallocation in response to trade liberalization. Averaging over four years prevents exceptional peaks—sometimes driven by measurement error—from dominating the measure of export growth.

We impose the following quantitative filters on the database. First, we require exports in 2005 to be above the threshold value of US\$10 million to exclude sectors that have insufficient economic significance. This amount represents 0.025 percent of total Argentine exports and 0.091 percent of industrial manufacturing exports in 2005. This criterion reduces the number of 4-digit sectors to 267. Second, we rank the remaining 267 sectors according to export growth between 1991-1994 and 2002-2005, selecting only those in the top 40 percentiles. This threshold is conservative, but it has the advantage of keeping in the list the non-outstanding 4-digit sectors that might include 6-digit categories with outstanding export performance. This criterion narrows the list to 106 4-digit sectors. Finally, among the 106 sectors, we select only those sectors that shipped more than one-third of their exports to OECD countries. The application of this last filter results in a list of 30 sectors.

The identified sectors were classified as differentiated or non-differentiated following Rauch (1999). Of these sectors, 13 can be classified as differentiated (listed in Table 1) and 17 as non-differentiated (listed in Table 2).

Export-performance criteria narrow the number of 4-digit sectors considerably, from 1,328 down to 30. Of the three sectors that are studied in this paper and for which customs data are available (customs data is not available for exports of TV programs), two appear in this list: Wines and Wooden Furniture.

Harmonized system classifications (at four or six digits) can only provide an approximate identification of relevant economic sectors: a given sector may be more closely identified at six or more digits, or may span more than one 4-digit category (as is the case for wooden furniture and chairs, in this study). A finer classification may still fail to identify a relevant sector, as classification may become more specific along a dimension that does not distinguish between sectors. This is the case for the Light Ship industry, since Argentina's 10-digit harmonized system classification does not discriminate by tonnage or length. Once properly classified, the Light Ship industry passes all the criteria established here. Classification into differentiated and non-differentiated products is also approximate and dependent on aggregation. All wine exports are grouped together and classified by Rauch—and therefore also here—as non-differentiated. As shown in the case study for that industry, however, all wines of a quality higher than table wine are highly differentiated.

For a number of sectors listed in Tables 1 and 2, growth is primarily driven by the increasing exploitation of resource-based comparative advantage in response to trade liberalization and deregulation. For instance, this is the case of copper ores (HS 2603), leather (HS 4107) and wood boards (HS 4407, 4409 and 4421). A few are highly idiosyncratic: Nuclear reactors" (HS 8401) are exported by only one government-owned agency, while "Reaction initiators and accelerators and catalyst preparations NESOI" (HS 3815), "Turbojets, turbo propellers and other gas turbines and parts" (HS 8411), and "Aircraft" (HS 8802) correspond to sales of used equipment, previously imported. Netting these sectors from the list and reclassifying wine as differentiated puts wines, seats and seat parts, and furniture at the top of an export-ranked list of differentiated products with high export growth and substantial orientation toward OECD markets.

Table A. 1. High-Growth, High-Value Sectors with Large Exports to OECD, Differentiated					
HS4	Exports 2005	To OECD	Growth [†]	Description	
	(US\$ M)	(%)			
9401	76.3	85	18	seats (except barber, dental, etc), and parts	
4407	74.0	59	44.6	wood sawn or chipped length, sliced etc, over 6mm th	
8802	49.5	58	7.2	aircraft, powered; spacecraft & launch vehicles	
3815	41.0	36	13.1	reaction initiators & accelerators & catalyst preparations NESOI	
9403	36.3	36	5.0	furniture NESOI and parts thereof	
4409	30.4	93	49.3	wood, continuously shaped (tongued, grooved etc.)	
6907	27.2	94	32.4	unglazed ceramic flags & paving, hearth tiles etc	
8401	17.6	100	6.6	nuclear reactors; fuel elem (n-i); mach isotop sep	
8455	17.5	51	5.7	metal-rolling mills and rolls therefor; parts	
8516	12.5	35	4.6	elec water, space & soil heaters; hair etc dry, pt	
4421	12.0	89	16.7	articles of wood, NESOI	
8411	11.9	50	11.8	turbojets, turbo propellers and other gas turbines and parts	
6109	10.4	47	14.7	t-shirts, singlets, tank tops etc, knit or crochet	
	39,876.0	69	2.4		Total exports
[†] Growth: ratio between the average for 2002-2005 and the average for 1991-1994.					

Source: Authors' calculations based on INDEC (National Institute of Statistics and Census of Argentina).

Table 2. High-Growth, High-Value Sectors with Large Exports to OECD—Non-differentiated

HS4	Exports 2005	To OECD	Growth [†]	Description		
	(US\$ M)	(%)				
2603	1026.9	42	318783.3	copper ores and concentrates		
2204	303.7	67	6.8	wine of fresh grapes; grape must NESOI		
4107	268.1	41	57.8	leather of animals NESOI, no hair NESOI		
7210	166.6	51	6.3	fl-rl iron & na steel nun600mm wd, clad etc		
7108	145.4	70	16.2	gold (incl plat plated), unwr, semimfr or powder		
2008	130.5	70	5.4	fruit, nuts etc prepared or preserved NESOI		
2905	110.0	65	5.3	acyclic alcohols & halogenat, sulfonatd etc derivs		
0806	75.7	60	5.2	grapes, fresh or dried		
7224	54.0	99	1144.5	alloy steel NESOI in ingots, oth pr frm & semif pr		
2302	52.1	91	5.1	bran, sharps etc from working cereals & leg plants		
7214	39.6	64	8.5	bars & rods, iron & na steel NESOI, h-r etc		
2827	38.0	70	149.2	chlorides etc; bromides etc; iodides etc.		
2901	30.1	60	27.1	acyclic hydrocarbons		
0810	28.9	99	126.8	fruit NESOI, fresh		
3913	24.9	34	166.4	natural (inc modified) polymers NESOI, primary forms		
2836	19.4	62	21.6	carbonates; peroxocarbonates; comm amm carbonate		
0811	11.1	72	434.6	fruit & nuts (raw or cooked by steam etc), frozen		
	39,876.0	69	2.4		Total exports	
†Growth: ratio between the average for 2002-2005 and the average for 1991-1994.						