

## **Summary of Institutional Case Studies**

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Note: This is Appendix A to Alejandro Portes and Lori D. Smith, "Institutions and Development in Latin America: A Comparative Study" (under review for publication).

Summary of report by Angelica Thumala, “Cultura militar y demandas del mercado: La modernización de la dirección general de aeronáutica civil de Chile.”

Commercial aviation in Chile has long been associated with that of the military, and as is the case with many other less developed countries, this link has been prolonged given the economic advantages of sharing resources with the Ministry of Defense. Apart from economic considerations, this relationship is also responsible for the Civil Aviation Authority’s markedly hierarchical organizational structure and culture. Despite some disagreements over the human capital advantages of this association, the high level of specialization and regulation required for fundamental operations contribute to a culture of meritocracy.

As was the case with the Santiago Stock Exchange, the most profound changes in the aeronautic system of Chile were related to structural and institutional changes introduced in the 80s and 90s, most notably the process of state modernization. The project of Modernization of the State obligated the Civil Aviation Authority to implement a Program of Improvement in Management to develop five strategic areas in an effort to reach a predefined standard: human resources, customer service, planning and control, financial administration, and gender. The organizations of the aeronautic system have since adopted the ideals and language of modernization with an emphasis on transparency, customer service, and efficiency. Thumala argues that processes of rationalization and modernization also imply that the character of the organization is technical, not political, and the organization is considered immune to corruption.

Apart from activities as an aviation authority, the organization oversees the Meteorological Department of Chile, the Technical School of Aviation, and acts as a

consultancy of the government in matters of civil aviation. The authority also supervises and controls all of the nation's airfields and various certifications and licenses. The Civil Aviation Authority has been classified as category 1 by the Federal Aviation Administration (FAA) of the U.S. since 1996, indicating that the authority has adopted the norms and methods recommended in international security. The authority is recognized in the exterior for its exceptional performance and technical capacity, and has incorporated the most recent advances in models of certification and management as well as innovations in technological and normative areas. Of course, given international regulations the adoption of technology is matter of necessity as much as choice.

The organizational performance of the Civil Aviation Authority coincides remarkably with its formal values and goals. The authority is key to the insertion of Chile in international commerce and thus plays an important role in national development. As reflected in this section, the organization scores well across all dimensions with the exception of the last, the presence of a counterveiling power to prevent control by particularistic interests in the class structure. While the Civil Aviation Authority does serve as a consultancy to the government its influence remains limited. This deficiency is illustrated in the case of the closing of the *Cerrillos* airport in Santiago, where the authority's position was not heeded in the final decision-making process. The government argued that the real estate value of the area surpassed the benefit of running a second airport and ultimately ignored the technical analyses presented by the authority as well as other institutions. As part of the state apparatus, however, the Civil Aviation Authority was not able to publicly establish their opposition.

Summary of report by Luz Eugenia Cereceda, “Institucionalidad y Desarrollo: el caso de Correos de Chile”

As with other Chilean institutions, dramatic changes were introduced during the military government of Pinochet (1973-89). During this period the orientation of the postal service shifted from that of a ‘public service’ to a ‘company of production.’ This transition led to the separation of one quarter of the officials of the original institution, the closing of agencies in financial deficit, and the private contracting of technical and professional personnel. Yet despite the retraction of the state apparatus during this period the postal service was never fully privatized, possibly because the organization proved to be viable and highly profitable and a change of this nature would have carried considerable political costs. Others speculate that precisely because the company produced good results it would have been privatized in 1989 had the regime not ended.

With the arrival of democracy changes were first made in terms of management, but efforts at improvement were frustrated by poor internal management, poor investments, and financial difficulties related to the economic crisis toward the end of the 90s. The political appointment of directors and executives generated problems of internal coordination, which were intensified by the organizational structure of the Post Office.

These problems culminated in the “scandal of compensations” in 2000, which created such a crisis that President Ricardo Lagos intervened in the company and declared the end of ‘autonomy of public companies from the State.’ The scandal consisted of a system of compensations for the retirement or firing of high executives. At the time the postal service had no norms of responsibility for Directors, who had the

power to determine the conditions of employment contracts. Following the scandal the directors became dependent on an external organization, the “System of Public Companies,” or SEP. The SEP acts as an owner to its constituent companies as well as a consultant in the control of management. The SEP also approves the strategic plans of companies, such as those of investment and development.

Following the entrance of SEP the postal service adopted the express mission of modernizing the firm and becoming the leading postal operator in the nation, and Cereceda identifies three phases in this process of modernization. First, a period of organization and cleaning of the company; second, a period of stabilization of the company and its orientation to the market and customers and third, the present phase of consolidation and the management of growth.

The first period entailed a radical change in organizational strategy and operation, and in response to the scandal the Director has been assigned clearly defined functions where each instance is subject to an audit conducted independently of the postal service, and the auditor has the autonomy to check and follow up on the policies and behavior of the company. Further, the new executive team elaborated a well-defined policy of internal communication based on the axes of transparency, probity, and effectiveness.

The Post Office has also adopted an orientation to customer service in its discourse, and this commitment is reinforced through external evaluations, annual meetings, and training and incentive programs. Professional character has also become an important aspect of hiring and promotion, though these procedures are not institutionalized. In other words, meritocratic recruitment and promotion is practiced but not supported by legal norms.

In conjunction with the SEP and the principal unions the post office has restructured its business model and redesigned all aspects of the postal process, including sales and marketing, classification, transport and logistics, distribution and returns, billing, products, diversification of business, administrative and systems support, and labor relations. This new business model has made technological innovations a constant concern for the company, though the level of organization and the strength with which the unions defend employment stability and obligate the company to adapt the personnel to technological advances implies various costs and risks.

In this context the postal service seeks to improve its position in the market and recover a positive image among the general public. In its present state the Post Office is important to the development of the country and has become a favored alternative in the market, and in the years following the scandal organizational practices have emerged to match institutional blueprints.

Summary of report by Guillermo Wormald and Daniel Brieba “La bolsa de comercio de Santiago de Chile: un analisis institucional.”

The Santiago stock exchange was founded by 45 members linked to important families of the criollan aristocracy, and throughout most of the 19<sup>th</sup> century stock market activity was largely based in closed family companies rather than corporations open to the public. Throughout the expansion of manufacturing during the period of state-led growth, as well as the successive reformist and revolutionary governments of the 60s and early 70s, the government heavily restricted and regulated investment, and the stock market directors actively impugned any measures that would potentially affect the economic interests of shareholders or themselves.

Since the application of a neoliberal model in 1973, however, processes of privatization, the creation of capital markets, and judicial redesign have had profound effects on stock market activity. The constitution promulgated in 1980 sought to stimulate free enterprise in the country and also served to introduce new investors and institutional actors to the stock exchange. In 1981 the Association of Pension Funds (AFP) was established, which made every dependent worker in the labor market legally obligated to participate in the stock exchange. This law authorized the investment of accumulated trusts in instruments of fixed income and securities in and outside the country. Insurance companies were also authorized to invest part of their trusts in shares, which implicated an unprecedented growth in the volume, profundity, and liquidity of the stock exchange. The creation of investment banks also played a crucial role in the development of new business strategies and improved professional management. While

initially these institutional actors were met with strong resistance from traditional investors and brokers, with the support of the government these new actors were rapidly integrated into the stock market.

The stock exchange scored well along all of the determinants of interest (see Figure 2 and the Appendix) and largely matches its institutional blueprints, but nonetheless a few shortcomings are apparent. The Stock Exchange has been at the forefront of national, regional, and international technological advances, but has not been as flexible in terms of organizational and institutional change. The government has generally been the driving force in the modernization of the stock market, and resistance to such modernization has affected social relations among brokers. While institutional demands for greater technical skill and transparency, for example, have been met, a tension has developed between the traditional *ethos* of a “gentleman’s club” and a more modern conception of the stock exchange as a competitive business center. Also, the practice of filtering privileged information and the opacity of the process of making recommendations for investment limit the protection available to smaller investors, as established in the organization’s statutes. The stock exchange contributes significantly to development, playing a large role in the national capital market and the finance and capitalization of companies.

Summary of report by Ivan Hernandez, “Análisis institucional de la Aerocivil de Colombia”

The responsibilities assumed by the Colombian Civil Aviation Authority are related to airport administration, the development of air transport, and air traffic regulation, but to some extent an imbalance exists in the coverage of obligations associated with airports and aeronautics. While the Civil Aviation Authority in Colombia enjoys strong personnel in teams of surveillance, radars, control, communications, procedures, departures and arrivals, etc, the inability of the authority to effectively establish channels of communication with external actors, barriers to coordination, and a scarce budget compromise the quality of the Civil Aviation Authority as an institution.

Deficiencies in the Colombian Civil Aviation Authority are largely related to a lack of proactivity as well as an absence of external allies. Inactivity in relations with associations such as the ACDAC (Colombian Association of Civil Aviators) as well as the inability of many regional airports to meet international standards set by the International Federation of Air Line Pilots’ Associations (IFALPA), for example, have placed the security of passengers at considerable risk. The necessity for improved communication between experts internal and external to the Civil Aviation Authority is best evidenced in the case of the West Caribbean airline. Despite grave risks identified by the ACDAC in this airline its operation was allowed to continue until two tragic disasters in 2005, when its license was suspended.

The need for external allies was most apparent in the remodeling of the Eldorado airport in Bogota. Given the absence of a tie between municipal and district-level

authorities in Bogota it was difficult and costly to coordinate between the executive level and the mayor's office to plan the airport remodeling and district development. In the face of these costs, organizations of control such as the Office of the Comptroller or General Accountability Office almost officially solicited the cancellation of the bidding process for private contracting in Eldorado airport. The Comptroller indicated that complementary projects necessary to improve operation, as well as issues of access and urban renovation which affect the integration of the airport with the environment were left out.

Hernandez suggests, however, that perhaps the most important criticism posed by the Office of the Comptroller was related to concerns about the impact of privatization on the system used to finance less profitable airports. The Comptroller has estimated that 66 percent of the authority's earnings come from Eldorado, which are in turn used to finance other airports. These transfers are not guaranteed by the State, however, and with the process of privatization taking place in Eldorado, a crisis could develop in the financing of other airports, including, for example, those of Cali and Medellin. These airports should allow for greater participation on part of the various stakeholders, though as mentioned the authority suffers from a lack of involvement with external actors.

Despite these obstacles the privatization of Eldorado has allowed for the participation of external entities such as the Chamber of Commerce, the Association of Floricultures (principal exporters and airport patrons), and Ascolflores, among others, in the development of a plan for the modernization of the airport. Although many of these entities became involved as early as the 90s, the government only recently made the decision to fully realize this plan through a process of privatization, which began to take

form two years ago. Specifically, the government contracted KPMG for the restructuring, which carried out the plan through its own research. The contract was based in the master plan and surveys and was congruent with demands from the international entities. KPMG also permitted a broader vision for the airport by holding a series of meetings with the Chamber of Commerce, Ascoflores, la Andi, airlines, and renters in the airport to discuss problems perceived in international transport. The privatization in the Eldorado airport may thus be considered an important exception to the general lack of proactivity observed within the entity, and Hernandez suggests that this process may provide an opportunity for understanding the networks that create effective means of communication with other interests in the aeronautic sector.

The shortcomings in proactivity observed within the Civil Aviation Authority are also aggravated by the need for more qualified personnel, more resources, and better organization in administrative and technical areas. Hernandez suggests that these internal problems compromise the extent of the authority's control and ability to supervise the aeronautic system. In the case of security advice, for example, the authority lacks the resources to handle the formal investigation of acts and is thus unable to exercise control or make judgment calls regarding these issues. Failures in runway traffic control, infrastructure, maintenance, and potholes in runway security zones also threaten security, and pilots are made to assume the responsibility for operating in these conditions. The lack of qualified personnel is related to the poor, non-competitive remuneration and salaries of technical positions and pilots, which further do not reflect their level of responsibility. Despite these shortcomings organizational practices adhere reasonably well to institutional blueprints, though the institution's contribution to developmental

goals is more questionable. In recent years the Eldorado airport has been important to the insertion of Colombia in international commerce, though the influence of the Civil Aviation Authority before the government and the performance of other airports leave much to be desired.

Summary of report by Luz Marina Diaz M. “Vida, pasion y muerte de la administracion postal nacional. Adpostal, Colombia.”

As with the other institutions studied, the application of neoliberal policies in the last few decades of the 20<sup>th</sup> century implied changes in the administration and management of the Colombian Post Office, principally through processes of privatization. The Post Office had more difficulty adapting to processes of modernization than any other institution included in this project, however, and its precarious position was evidenced by its replacement with private organizations and recent liquidation in August 2006.

Prior to the application of structural reform policies in Colombia, the Post Office had enjoyed a monopoly in postal service, which is credited with contributing to a “culture of apathy” within the institution. Competition from private companies began to dissolve this monopoly in the 70s and 80s, though most changes appeared after the Constitution of 1991. As with the Chilean Post Office in under Pinochet, neoliberal reforms such as the Administrative Restructuring Entity of 1992 sought to transform the Colombian Post Office from a public service into an Industrial and Commercial Company of the State, linked to the Ministry of Communications but with an autonomous administration and budget.

In 1995 a series of agreements allowed for private contracting within the institution. The Ministry of Communications would outsource the administration of the national postal service for a determined period of five years. The same year AVIANCA was licensed to transport shipments in the form of a specialized courier company. In 2000

AVIANCA signed agreements that permitted the commercialization and selling of the national product, and also made an agreement with FEDEX to offer international services to 213 countries. Also, in 2003 DEPRISA formed a strategic alliance with TNT, the number one postal service in Europe and Asia. Hundreds of companies of a formal or informal private character have entered the market to provide services similar to the Post Office, often encroaching on its most profitable sectors. In 2006 the national postal service covered only 18 percent of the market, and this meager portion largely represented isolated regions of the country and areas of difficult access.

The administrative situation of the Post Office was likewise incapable of confronting the challenges posed by globalization, and changed little following institutional reforms. Generally the failure of these reforms was related to the assumption that the promotion of norms will necessarily alter established behavior. Despite several attempts to generate norms of meritocracy in the hiring and promotion of personnel, for example, selection continued to be rooted in political recommendations and *amiguismo*. Criteria for the evaluation of performance were never established, and not only were clear conditions for promotion absent, but promotions hardly occurred. These issues further contributed to a culture of apathy and lack of interest in the performance of the organization.

The reforms also failed to address the implications of constraints on technical and labor resources for the potential of meritocracy. For example, the personnel had been frozen since 2003 while at the same time 810 positions had been eliminated in the process of public employment reform. The union was unable to hire new employees with advanced education because of the costs it would entail. The only new additions of

personnel were high-level advisors, where exams weren't required and decisions were based on a subjective interview process and political leverage. Selection based on merit would also have been more difficult in the Post Office given the absence of a clearly institutionalized hierarchy.

Law 909, promulgated in 2004, intended to develop a culture of absolute intolerance toward corrupt officials and promote transparency in the use of resources. Within the Post Office there were no substantial reports of an illegal appropriation of funds or other apparent irregularities in the management of funds, though corruption was widespread on part of the employees engaged in operative activities, or those in direct contact with packages and shipments. The employees opened the packages to extract the contents for their pockets, and these incidents played a key role in the loss of credibility on part of clients.

As should be apparent from this summary, the Post Office scored poorly across all hypothesized determinants of development, did not correspond in practice to its institutional blueprints, and even while it may reflect its institutional values to some extent the Post Office made no appreciable contribution to development. As mentioned earlier, it recently entered liquidation and later announced a "Plan of Reform of the Colombian Postal Sector."

Summary of report by Cesar A. Rodriguez Garavito, “De club de caballeros a foro electronico de negociacion: un analisis institucional de la Bolsa de Valores de Colombia”

The Colombian stock exchange originally consisted of three regional stock markets, which posed a powerful obstacle for the transparent and homogenous formation of financial instruments of the country. The scarce liquidity and profundity of the regional markets, as well as the heightened role of banks as sources of finance for companies, also pushed the institution farther along a downward trajectory. This direction was offset, however, by structural adjustment policies and processes of economic liberalization introduced during the governments of Barco (1986-90) and Gaviria (1990-94) that encouraged the channeling of economic resources toward financial circuits.

Three areas of reform have been the most relevant. First, social security reform partially privatized the system and provided pension funds with capital to invest in financial instruments. Other reforms drove public debt through the issuance of treasury bonds, or TES, which eventually came to dominate stock exchange operations toward the end of the 1990s and the beginning of this decade. Other measures liberalized capital flows, promoting foreign investment and also attracted national capital that had previously been deposited in banks outside the country or invested in foreign exchanges to avoid national controls. The BVC has also incorporated new financial instruments to now include fixed income (bonds of the State, CDT, bonds issued by private companies, etc.), securities, currencies, and derivatives. Nonetheless the market continues to be very

domestic, as only stocks in Colombian companies, bonds from the State, and other national instruments may be traded in the BVC.

These reforms were as important for their role in affecting institutional change as they were for the dramatic increase in the number of financial transactions taking place in the stock exchange. The adoption of foreign organizational models and new technologies is directly attributable to processes of economic liberalization. All of the institutional innovations applied by the BVC have been adopted from the leading exchanges in Latin America, Madrid, and New York.

Technological change, as part of a broader process of modernization, has been at least partly responsible for the transition of the stock exchange from a “gentleman’s club” to a corporation open to public ownership. The mechanisms at work are the same as those observed in Chile and Mexico: when the model of the stock exchange had been based on relations among a small, cohesive elite the transactions were made by telephone and prices were not uniform, but the incorporation of an electronic platform has rendered transactions anonymous.

The transition to a public forum was also associated with the national unification of the stock exchange. The aforementioned limitations of the regional exchanges cannot adequately explain the decision to consolidate the three exchanges in the Colombian Stock Exchange (BVC) in 2001. Instead, the growing pressure of competition had threatened to leave the BVC behind, as foreign companies and the Bank of the Republic, for example, began to offer less costly platforms for transactions.

Economic liberalization also contributed to the public character of the stock exchange through the introduction of new financial actors, including the new pension

funds, banks, and insurance companies, and new financial intermediaries. Traditional brokerage firms, however, continue to be the only actors authorized to trade stocks, and this has generated tensions within the BVC. While the new actors have not been entirely successful in ending this preferential treatment of the BVC toward traditional brokers, they have assumed positions in the government of the BVC and are competitive in the markets in which they operate.

Another tension exists in relation to the principle of *self-regulation* and the conflict of roles and interests associated with the BVC's position as both a representative of the traditional firms or shareholders and as a supervisor of their conduct. In an effort to reconcile this structural tension, in 2004 the BVC incorporated a new institutional innovation following a common U.S. scheme, where the department of supervision became independent from the rest of the entity.

While the BVC has become the leading institution of its kind in Colombia and managed to sustain itself with competition from other systems, in terms of volume of operations, capitalization, and number of actors, the BVC falls behind regional leaders. The size of the BVC in terms of its listing also remains modest - only 10 of the 100 largest companies of the country had stocks in the BVC in 2006. Thus, it seems that the BVC has yet to realize its mission of contributing to development through the 'channeling of savings toward productive investment.'

Despite these constraints, the BVC has managed to avoid a complete discrepancy between institutional blueprints and organizational practice through the development of 'efficient, transparent, equitable, competitive, secure, and supervised markets.' Most discrepancies are related to limitations in technology. Although the BVC was able to

reinvent itself within five years by consolidating regional markets, implementing electronic platforms, and transforming its corporative government, its technological capacity continues to be its primary deficiency.

Summary of report by Jose Luis Velasco, “Autoridad Aeronautica de Mexico”

Jose Luis Velasco identifies three principal tendencies experienced by Mexican Civil Aviation in recent decades: growth and diversification in activity, the privatization of air transport, and an opening to investment. Processes of privatization and deregulation have occurred both in air transport service and in the administration and operation of airports. Until 1988 the decentralized public entity, Airports and Auxiliary Services (ASA), had administered 60 airports, including the largest and most important in the country. Processes of deregulation began in 1995, and in 1998 the government implemented a program to further open the airport system to private investment. Of the 85 airports integrated in the Mexican Airport System (SAM), 34 are administered entirely or partially by private companies, and the most important airport, that of Mexico City, is controlled by an ad hoc group. The vulnerability to the influence of mechanisms and criteria of the market in the sector should be met with new innovations in supervision and regulation, but the Civil Aviation Authority has largely been unable to meet this challenge.

Many of the challenges facing Mexican civil aviation are also related to the dispersion of the Civil Aviation Authority in various government offices. Mexican civil aviation lacks an agency comparable in autonomy and weight to those regulating other economic activities such as the stock exchange. In practice, most operations in civil aviation are distributed between the Secretary of Communications and Transport (SCT), the Civil Aviation Authority, and other agencies of the SCT sector. Powers vested to the SCT include the authority to grant, annul, renew, and revoke concessions, which

constitute an important instrument in the regulation and supervision of civil aviation. Responsibilities related to the development of air transport (airport infrastructure, airlines, etc.) and the market (competitiveness, coverage, etc.) are assumed by the SCT, governors, and other sectors concerned with private initiatives. The Civil Aviation Authority's tasks, then, are limited to the supervision of everyday operations within the sector. Thus, the Civil Aviation Authority's mission to "ensure that air transport participates in the process of sustainable growth, contributes to social well-being, regional development, and the generation of employment, supporting the formation of an integrated society" is unrealistic at best, given that the authority is entrusted exclusively with operative questions.

This dispersion makes civil aviation move vulnerable to strong pressures from the economic elite, as may be evidenced in the suspension of operations of Aerocalifornia for ninety days in 2006. The SCT had ostensibly suspended operations because the Civil Aviation Authority had detected problems of security in the airline, though Aerocalifornia and its union asserted that the decision was motivated by an attempt to benefit new low-cost airlines by eliminating a competitor during a 'price war.' Additional denunciations of corruption were made in regard to the financial rescue of Mexicana and Aeroméxico and in the opening to private investment in the airports. Paradoxically, the fact that the authority is not able to deal directly with both elites has immunized the authority itself from corruption – the organization has managed to stay at the margins of any power struggles.

Inadequate financial resources pose yet another challenge for civil aviation. The authority is grossly under-funded, and this may be explained, at least in part, by the

priorities of the government and federal legislators who are not overly concerned with strengthening the aeronautic authority, as well as the fragility of public finances. With greater resources, for example, exported aircraft parts could be certified and thus enjoy greater acceptance and better prices on international markets. Financial difficulties are also associated with the lack of personnel and low salaries. The salaries are two or three times lower than those of the ASA and other organizations in the sector. Yet in spite of these deficiencies the officials are capable, effective, driven, and take pride in their work.

Another immediate cause of this deficiency in human resources was the application of programs of voluntary retirement in public administration during the government of Fox. The program was intended to advance the efficiency and rationality of public expenditure in services, though ultimately the policy resulted in the loss of valuable technical personnel. Similarly, in 2006 a well-intended law designed to guarantee that hiring and promotion decisions are based exclusively on qualifications and performance has effectively slowed the process of filling these positions. Not only may it take eight months to administer all of the exams, but it also incurs greater costs in an already under-funded organization. In an organization that had already been applying meritocratic criteria for the hiring and promotion of personnel the process has been even more frustrating, and the content of the exams is considered to be inappropriate and a poor predictor of professional performance.

In terms actual performance, the authority carries out its operative functions well despite the discrepancy between its mission and responsibilities, and thus is considered to adhere well to its institutional blueprints. On the other hand, given the substantive

implications of this discrepancy the Civil Aviation Authority's role in national development remains ambiguous.

Summary of report by Miguel Angel Gomez Fonseca, “La Bolsa Mexicana de Valores.”\_

In the wake of fiscal mismanagement and the resulting deterioration of the investment climate in Mexico in the 1970s, the Mexican stock exchange positioned itself as a strategic option for the diversification of savings options and the finance of productive investments. In an effort to alleviate a dependence on external capital, the government of Luis Echeverría implemented the long awaited New Law of the Stock Exchange, substituting that of 1933. The new law granted brokerage firms a more favorable position in the Mexican stock exchange (Bolsa Mexicana De Valores, or BMV), and the “gentlemen” were compelled to establish their own organizations. The “gentlemen” maintained their roles as primary actors, but under the filter of the leading organizations, and thus the stock exchange continued to represent the interests of the dominant class. This role of the stock exchange as a voice for the dominant class was again evident during the Mexican bank nationalization in 1982, when the dominant class was able to partially regain control over the financial system.

In recent years elite power has taken on different forms, however. Rather than ascribing to the prototype of the old bourgeoisie two decades earlier, for example, this new elite class better demonstrates business acumen and favors transparency. This new elite is less involved in operations and yet is not left out – the elite incorporates general directors or promotes new investments, and may use the BMV as a complementary resource for privatization.

In 1976 the BMV was placed in charge of the organization and operation of the stock exchange, but later generated other companies oriented toward particular aspects of

the market. The BMV group was formed with the emergence of these seven other companies in the first half of the 90s. At present, shareholders consist exclusively of authorized brokerage firms, each of which owns a single share. The BMV has already started its demutualization process, however, which will effectively break the monopoly presently enjoyed by brokerage firms.

The recovery of the Mexican economy following the financial crisis of 1994-95 provides the context for the present state of the BMV, which has evolved through several key processes: the introduction of electronic transactions, the generation of information, and the internationalization of exchanges through the bilateral flow of local instruments, foreign instruments, and monetary flows. New technologies have affected not only transactions, but also processes of generating and diffusing information. The BMV is characterized by considerable technological flexibility and openness to innovation, and actors have demonstrated a clear concern with the adoption of the newest advances.

Of the seven subsidiary companies, two manage new technologies of information: VALMER for the generation of information and Bursatec for the electronic operation of local and international exchanges. Both MexDer and Asigna are involved in the organization of the derivatives market. The alliance with ICAP and the BMV is constitutes SIF Incap, which is oriented toward strengthening the insertion of the Mexican market in international capital flows and the development of new financial instruments negotiable at the international level. SD Indeval is charged with the physical custody of the necessary stocks so that transactions do not necessarily imply the physical change of hands, reducing risks and costs, and all of the companies constituting the group are extensively linked.

The bond market of the BMV has performed much better than the capital market in terms of volume, though this is a common phenomenon among emerging markets. The bond market has served to improve local financing in both the public and private sectors. The bond market has been able to restore the diversification of sources of financing, which had been biased externally following the 1994-5 crisis. Stock exchanges should not be overly dependent on government bonds, and the greater the extent to which the bond market ceases to be the sustaining force behind the stock exchange, the greater its maturity and capacity. Following 1997 the private sector has increased its issuance of bonds, and so the participation of internal and external markets has been converging. The participation of pension funds has also been growing, but continues to lag behind Chile, largely because of restrictions on the participation of pension funds in the capital market.

The capital market, as suggested earlier, continues to be superficial, and this is attributed to its context in an institutional environment adverse to banking and bank savings. Gomez Fonseca also identified a series of other factors, including a predilection toward immobile investments, the inexistence of options for popular savings in the banking system or institutional investors in general, the absence of intermediary specialists in this area of savings, previous traumatic experiences, and the concentration of income. In this way the organization's capacity to involve itself with relevant actors leaves much to be desired, and actors promoting the stock exchange have not made significant advances in incorporating broad sectors of Mexican society. Nonetheless the BMV continues to grow quantitatively and mature qualitatively, and is slowly beginning to displace other financial intermediaries (i.e. commercial banks, development banks,

credit unions, etc.) in the financing of companies. The BMV has adopted innovations from the major financial centers, particularly those of Chile.

Although the BMV is not as competitive as the stock exchanges of countries such as Chile and Spain, it has played its role in national economic development well enough. The BMV has also responded well to external pressures to modernize organizational practices and is continuously modifying its structure, as evidenced by the formation of the BMV group. This constant change, however, implies that at times changes in practices may precede changes in the institutional blueprints or vice versa.