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FINAL TECHNICAL REPORT

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Administering Institution: De La Salle University–Angelo King Institute for Economic and Business

Studies (DLSU-AKI)

Country of Implementation: Philippines

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Regional Papers: Tereso Tullao, Mitzie Conchada, and John Paul Aguinaldo (Trade Policy Environment and Production Networks, and Implications on Regional Agreements), and Ponciano S. Intal, Jr. (Deepening Trade and Production Linkages in East Asia and Implications on National Policies and Regional Cooperation)

Industry Papers: Myrna Austria (Semiconductors), Glenn Sipin, Oliver Malabanan and Jose Lloyd Espiritu (Information and Communication Technology), Marissa C. Garcia and Sandy Vicente (Steel), Raymund Habaradas (Textile and Garments), Florendo Rabago (Fashion and Design), Roberto Raymundo (Automotive), Joel Tanchuco (Footwear), and Victoria Zosa (Furniture)

Facilitative Factors, Social Capital, Labor Market, and Industrial Adjustment Papers: Michael Alba and Maricar Paz Garde (Foreign Direct Investments), Marvin Castell (Government Institutions), Gloria Chavez (Local Government Units), Florendo Rabago and Ather Sajid (Infrastructure/Logistics), Andrea Santiago (Family Firms), Ather Sajid, Bai Yasmin Sinsuat and Florendo Rabago (Corporate Culture), and Winfred Villamil (Labor)

Background/Integrative Papers: Ponciano S. Intal, Jr. and Edward See (Manufacturing Sector), Roberto Raymundo and Angelo Taningco (East Asian Production Networks), Ather Sajid (Evolution of Industrial Restructuring in the Philippines), and Ponciano S. Intal, Jr. and Joel Hernandez (Philippines: Production Networks, Industrial Adjustments,

Institutions, Policies, and Regional Cooperation)

Integrative Report: Ponciano S. Intal, Jr.

Period Covered: January 20, 2004–January 19, 2006

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1.0 Research Problem

The basic questions that animated the project remain the same. Foremost is the question posed at the national level; that is, how can the Philippines better manage the challenges of globalization in the face of policy and economic developments in Asia especially East Asia? This has been the primary concern of the project and as such, the project has a strong policy focus with an admittedly mainly Philippine concentration in most of the studies under the project. As indicated in the proposal, the Philippine focus is by design because it is the country in East Asia that needs it most and of course because Angelo King Institute and most of the researchers are especially interested in and more competent on the Philippines.

The questions posed at the regional level also remain valid and are the ultimately the concern of the country and regional papers. However, the country and regional papers are very few to be able to robustly answer the two questions, especially the question on how can the East Asia region manage the growing and evolving production networks in the region without significant industrial and labor market dislocations in adversely affected areas or countries. Nonetheless, the country papers give some indication of the adjustment issues at the national and sectoral levels. It is also possible to bring out regional cooperation considerations drawing from the country and regional papers.

2.0 Research Findings

2.1 Regional

The regional component of the project consists of country papers on China, Malaysia, Philippines, Thailand, and Vietnam, and a regional paper on regional production networks and trade regime in East Asia. There is deepening trade and investment linkages in East Asia, much of it consisting of trade in parts and components that underpin the growing regional production networks in the region. The increased pressure from globalization demands and the reduction in trade barriers and transport costs allows the deepening of regional production networks according to the differing and shifting comparative advantages of East Asian countries. The benefits are increased efficiency and reduction of costs. The challenge is unending demand for industrial upgrading as the market competition stiffens. At the same time, flows of foreign direct investments have provided the main mechanism for stronger trade and production network linkages and industrial upgrading in the region.

The country papers provide insights for successful industrial upgrading. Foreign direct investment has played a key role in virtually all the countries and industries in the project. In addition are the unique, individual national circumstances and imperatives. The amazing transformation of China's electronics and automotive industries are not only the result of massive foreign direct investment into China, and the concomitant technology transfer, but also the remarkable capability of the domestic firms to learn and leap frog technologically, so much so that in so short a time there is a growing shift from original equipment manufacturing (OEM) to original design manufacturing (ODM) and the emergence of Chinese brands (Kueh, 2005). This is a testament to a remarkable and dynamic domestic entrepreneurship as well as technical and organizational capability. In the case of Thailand, its emergence as a "Detroit of Asia" stems in part from domestic policy reforms that allowed for global sourcing of parts---thereby generating increased pressure for greater efficiency onto the domestic suppliers---at the same time that the major industry players have turned to the world, especially Asia as the market (see Chiasakul, 2005). It is worth noting

that a robust and large domestic market was the foundation for Thailand's emergence as Asia's Detroit, just as a booming and large domestic China market brought forth the fast growing and increasingly export competitive China players. This is because in both the automotive and consumer electronics markets, there are economies of scale and therefore, a large and robust market becomes a good platform for export expansion in as much as the industry would be able to attract supplier firms to form a viable local production cluster, as exemplified by Thailand's automotive industry.

The Malaysian experience (see Nambiar, 2005) indicates that a very good investment climate with low cost of doing business (and a business friendly government) can go a long way towards successful industrial upgrading. The Malaysian electrical and electronics industry is one of Asia's largest exporters and is dominated by multinationals. The success of Malaysia in attracting the world's big industry players and their suppliers over the past three and a half decades has created robust industrial clusters, especially in Penang. The Malaysian government intervention for the industry has not actually been remarkable, although the government has supported wafer fabrication and the development of the Super Corridor. On the whole, it has been the private sector, mainly the foreign firms, that built up the deep foundation and cluster of Malaysia's electrical and electronics industry. In sharp contrast, the Malaysian government heavily promoted the development of a national automotive industry through heavy trade protection. This has largely failed, and the national company has been floundering in recent years. The implication is clear: Government intervention that runs counter to a country's comparative advantage could be costly and could end up in failure.

Kueh (2005) points out that fast developing China will reshape the regional production networks and tighten further market competition in the region. From among the countries in the region, perhaps the most vulnerable is the Philippines, despite its remarkable success in its export of electronics to China in recent years. In textiles and garments, Vietnam has succeeded despite the China factor (Tranh, 2005) while the Philippines floundered from declining competitiveness (see Castillo, 2005). The challenge for the Philippines is how to undertake industrial upgrading and manage better the challenges of increased economic integration in the region and globalization.

2.2 National

Overall, the picture in the aggregate in manufacturing was mediocre and industry performance was mixed; nonetheless, there are indications of some industries adjusting to the challenges of liberalization and globalization. The successful adjusters suggest that improving the country's investment climate, greater focus on industrial upgrading and niches with a greater sense of the shifts in comparative advantage and of the production networks in East Asia, strengthening of support institutions, and improvement of logistics and infrastructure are all important in order for the country to manage better the challenges of globalization.

Intal and See (2005) show the poor productivity performance and slow overall growth and mixed industry performance in the country's manufacturing sector during the 1990s. The authors pointed to a number of reasons for this, including the "triple whammy" that the sector was subjected to during the decade. The authors present a number of recommendations in order for the country to adjust better to the demands of globalization. The quality of the industrial adjustment process is mirrored in the labor market. At the same time, the pace and nature of the industrial adjustment process is also shaped by the dynamics of the industrial relations environment. The Villamil and Hernandez (2005) paper suggests that the weak overall performance found expression in the increased reliance of firms on labor flexibility, female labor, and low investments in worker skill training. This is to a large extent the "low road" to adjustment to globalization.

The authors recommend the elimination of disincentives for firms to undertake firm level training, wage determination that is based on productivity instead of de-facto legislation, and allowing workers to bear the cost of firm level training. These recommendations shift the path of adjustment towards the "high road" to adjustment to globalization.

2.2.1 Industry Studies

The industry studies suggest a more complex and in some ways more hopeful reality but wherein much remains to be done in order to survive the rigors of increased competition domestically and internationally. To wit:

• In textiles and garments, the Philippines weathered well the first year of the end of the MFA (although the US and EU made agreements with China for quotas on selected textile and garments exports from China to the US and EU in the short run). What is apparent is that the leaders of the country's garment industry (the country's textile industry has been drastically reduced in the 1990s) have been slowly and quietly upgrading towards the open and quota-less post MFA years. Habaradas (2005) limited sample survey of garment firms and the case study of one of the leading garment firms in the country that is part of a regional production network suggest that nearly half have invested in process upgrading for increased efficiency, primarily through the purchase of newer machines. A few have invested in product upgrading through differentiated products and some in the training of their workers. The country appears to be moving more towards branded garments as it has lost comparative advantage in basic commodity products.

However, the Habaradas survey results indicate that virtually all the firms in the survey do not belong to any local production cluster nor an export consortium, suggesting the firms are likely to be in the 2nd tier or 3rd tier in the production network; it would be difficult for them to move to a 1st tier position given the lack of organization in the local industry. The industry players also pointed out that government support to the industry's adjustment process is wanting and that they have benefited more from the technical support provided by or in conjunction with the buyers, suggesting that incentives for more firm-specific technical support from buyers (and possibly equipment sellers) may be given more importance in furthering the technical and organizational upgrading of the firms in the garment industry. The China challenge remains foremost in the minds of the industry while market nicheing, technology upgrading, and improved logistics are the key elements of the adjustment strategy being considered for the industry's industrial upgrading roadmap.

• Rabago (2005) presents a more ambitious path towards product upgrading along a value chain for the country's fashion and design industry, which includes garments, jewelry and leather goods. The strategy is to harness further the country's design talent and indigenous materials (a number of Filipino designers are getting known internationally for successfully mixing indigenous and other materials producing products with native sensibility and global appeal) as well as building local brands for both the domestic and the large Filipino communities overseas as springboard. This strategy is increasingly accepted as a promising way forward for the industry and to some extent is already underway albeit slowly. This strategy means a more focused encouragement of the development of design talent, including the establishment of credible and specialized training programs and courses (e.g., in gemology, industrial design, fashion design). It also means a more

aggressive research and development support on native materials including indigenous fibers and fashion accessories.

- It is worth noting here that the country's holiday decors and fashion accessories industries are now looking at China as a source of cheap materials which they can mix with Philippine materials for products with Philippine design for export to China. This is an important change in mindset considering that for years the industry has been bewailing the growing dominance of China in the holiday decors export market. In short, the focus is market nicheing, with market potentials even in China. This emerging strategy of the holiday decors and fashion accessories industries is consistent with the industry upgrading strategy presented in Rabago (2005).
- The Habaradas (2005) and Rabago (2005) papers are complementary, with the Rabago (2005) paper a natural progression from the recommendations for improvements in organization and policy and support structure in order for the country to at least maintain its place in the global production networks in the face of the China onslaught. It is apparent that the robust export growth of the textile and garments industry during the last half of the 1980s and the first half of the 1990s may not be replicated in view of the stiff competitive environment in garments post MFA. Nonetheless, the roadmap for the industry is getting clearer and the industry leaders are moving forward consistent with the roadmap.
- The country's furniture industry is an example of successful adjustment to globalization but it also indicates that early success does not guarantee continuous success in the face of growing competition from other countries in the region (see Zosa, 2005). The Philippines was the 2nd largest furniture exporter in Asia next to Taiwan in the 1970s, with the country relying on rattan furniture. The entry of low cost furniture producers from the rest of East Asia and the rattan shortage forced the Cebu furniture industry, the country's largest furniture export industry to move up to designer furniture and the introduction of mixed media furniture that has earned Cebu the moniker of "Milan of Asia." The shift to designer furniture was catalyzed by the entry of Maitland-Smith into the country that brought professionals and global buyers to Cebu, initiated workers training, established subcontractors, and experimented with mixed media. Despite Cebu's success in designer furniture, the global share of the Philippines in the world furniture export market has shrank to only 1/5 of 1 percent in 2004, easily outranked by China, Thailand, Malaysia, and Indonesia, which are all in the top 15 major furniture exporters in 2000. In addition, Cebu's furniture industry is increasingly threatened by the growing capability of its East Asian competitors to move towards designer furniture, facilitated in part by the exodus of Filipino technicians and designers to the better paying companies in the competitor countries.

Zosa's (2005) paper provides insights into the potentials and challenges of adjustment for the Cebu furniture industry. The industry shares designers, skilled workers, machinery and quality control standards with Cebu's gifts, toys, and houseware (GTH) and fashion accessories industries which are also export leaders in their industries. In short, Cebu has a viable industrial cluster similar to Italy (but without the important link to the machine industry) with significant horizontal linkages across related industries and with robust inter-firm cooperation, such as in the consolidation of small shipments, borrowing and lending of materials, sharing of buyers, and subcontracting. There is also strong support from the local government unit as well as from the local industry association.

However, worker skill training is more informal than formal, there is low investment in worker training as skilled workers get recruited by competitors in China, Indonesia, and Vietnam, and knowledge diffusion is done primarily through informal apprenticeships among workers. An important constraint has been the reluctance of owners to invest in machinery because of their bad experience on unsettled labor conditions (many labor disputes) during the mid-1980s. Yet, the growth in the world furniture industry is in the IKEA DIY type of furniture, which is machine-intensive. This is a major reason for the declining market share of the country in the furniture exports, in addition to the difficult of local supply of raw materials (especially wood) for the industry.

Zosa (2005) highlights a number of initiatives that can help the industry move forward. They include R&D investments in raw materials and process innovations for the furniture industry, improved investment climate nationally, including policy consistency from the national government, improved raw material chain, and support for international certification for furniture exporters. In addition, greater investments in worker training and formal design programs (it is only now that Cebu is starting a good quality industrial program, thanks to the efforts of one of the leading furniture designers in the country). Also, the continuation of the improved industrial relations environment may encourage more of the firms to invest and reinvest in machinery for improved labor productivity, quality consistency, and faster supply response. Finally, branding could be explored as is being done by Kenneth Cobonpue, an internationally awarded furniture designer from Cebu, for his high end furniture products.

- If the Cebu furniture industry has succeeded to adjust but which is currently being threatened by growing competition from lower priced competitors in higher end designer furniture, the footwear industry based in Marikina has largely failed to do the adjustments in terms of product and technological upgrading and organizational improvements in the face of China's dominance in the mid to low end products. The industry has been particularly hard hit by the influx of Chinese footwear imports, apparently aggravated by technical smuggling as industry people averred. Marikina-based firms were especially adversely affected. The major reason for this is that the Marikina-based domestic-oriented industry still focuses on midrange to low end products using less mechanized production primarily by small firms in an area with relatively high wages. This compares badly with China's large scale firms utilizing more mechanized process that allows for economies of scale in the face of low labor costs. The country's export picture in footwear is indicative of where the comparative advantage of the country currently is; i.e., in leather footwear in the midrange market, which the Marikina production system seems to be better geared to. Nonetheless, that the Cebu-based footwear industry has fared better than the Marikina-based appears to be related to the way the two footwear production centers in the country are organized and to the mindset of the firms, with the Cebu-based firms being relatively bigger and more outward oriented. The "shock from China imports" is starting to force the Marikina-based footwear industry to organize itself better.
- Steel and steel based industries account for nearly two-fifths of manufacturing employment in the
 country (Garcia and Vicente, 2005). It is an important intermediate good and its competitiveness
 helps shape the industrial deepening of the country. The results of the Garcia and Vicente study
 are sobering, however. The present local technology makes steel making in the country expensive
 relative to international norms in almost all the phases of steel making from scrap to billets to coils
 to pipes, tubes and galvanized iron. High cost of raw materials (as they have to be imported) and

power (with the country having one of the highest power rates in Asia) pose as severe obstacles to a competitive steel industry in the country. The plight of the industry is aggravated by technical smuggling of substandard steel products.

It is worth noting that the Philippines has an emerging comparative advantage in shipbuilding as indicated by the very successful export-oriented Tsuneishi shipyards in Cebu. Shipbuilding is a steel-based industry. This suggests that the appropriate strategy for the country is to give more emphasis at present on the promising steel-based industries rather than the steel making industry per se. Garcia and Vicente (2005) prefer a more industry-neutral tariff structure nonetheless and the authors prefer to focus on the more basic issues of high power cost, poor port efficiency, corruption, and weak implementation of product standards. These are all very important concerns although they take years to improve substantially. What is apparent is that the country's tariff structure should not be tilted well against the steel based industries since it is this subsector where the potentials for growth and competitiveness lie for the country in the short and medium run.

• The Philippine automotive industry appears two-faced: while the industry is the smallest and poor performing among the ASEAN four countries (Thailand, Malaysia, Indonesia, and the Philippines), the country is a net exporter of automotive parts. Behind this is that the country has the smallest automotive market among the four countries while it is a participant in the ASEAN industrial complementation program where there is an intra-ASEAN trade in car parts; the country has also comparative advantage in automotive electronics because of the country's electronics industry. Thus, to some extent the country is part of the ASEAN automotive production network, although China is fast emerging as a major automotive producer. The current arrangements in the region may be affected ultimately by China when China moves into exporting more aggressively.

Raymundo's (2005) analysis brings out key problems that hindered the development of the automotive industry in the country. These include the cost penalty of the local content rule, the use by assemblers of in-house production and subsidiaries instead of sub-contracting to Filipino firms, limited technology transfer, and lower tariffs on CKDs compared to raw material imports for parts production. Raymundo's paper highlights the need to rationalize further the industry, focusing on parts and components, forming strategic alliances, and support for skills training and technology transfer program. (The local content rule is now largely history and the export incentives program for CBUs is in some respect an expensive subsidy to foreign consumers and/or the firms' domestic employees.)

• If the adjustment process for the first four industries above has been difficult, the electronics and the ICT-based services industry were the booming industries in the 1990s and early 2000s, respectively. Both industries are dominated by multinational companies and the growth of the industries is reflective of the emerging comparative advantage of the country in the increasingly more skill intensive industries.

The electronics industry is very well linked with the global and regional production networks, and the changing direction of its exports with a growing share of the China market is indicative of the changing nature of the regional production networks. The Austria (2005) paper indicates that the product make up of the industry is getting less dependent on semiconductors, which is a promising sign. Nonetheless, the slow down in exports in recent years linked to the slow down in investments

point out that the issue of the country's investment climate is an important concern, of which the country's high power cost ranks high. The industry players have a road map towards electrical manufacturing services, as backward integration is not possible given the extremely capital intensive wafer fabrication segment. A critical concern here is the quality and quantity of suitable human capital given the scarcity of graduate level engineers in the country; hence, a major recommendation is to implement a program for increasing substantially the country's stock of graduate level engineers. Despite the inroads of the country in the industry, competition is stiff internationally with China emerging as a major threat. The closure of a number of firms and their transfer of operations to China is indicative of the vulnerability of the country's electronics industry. Hence, the importance of a well planned and well programmed program for the country to deepen its comparative advantage in the industry.

• The ICT-based services industries have been the fastest growing during the past few years (see Sipin, Espiritu, and Maalbanan, 2005). ICT-based industries where the country is gaining international reputation include call centers, business process outsourcing, medical transcription, animation, engineering and logistics services. The sharp drop in international telecommunications cost has made many of these services tradable and opened up opportunities for employment for many of the country's college educated, English proficient, and professionally trained graduates. The large supply of college graduates, produced by a very market oriented higher educational system, has become a basis for comparative advantage of the country. This is still a sunrise industry in the country with nary a week without new call centers or shared services or BPO services being published. Note though that the country is not as competitive as India in the more "high end" and "high value added" services, such as programming, financial analysis, and R & D services because of lack of qualified manpower.

Perhaps more than the electronics industry, the challenge in the ICT-based industries is in deepening the country's comparative advantage in this area. The recommendations are related to improving the country's overall business environment (including reduction in corruption), media campaign, and aggressive promotion to eliminate the very negative image of the country internationally, deepening the human capital stock through improved and targeted training and certification programs (similar to the programs of the Cebu Economic Development Foundation-Information Technology (CEDF-IT) and ICT and English proficiency curricular offerings in elementary and high school, and improved regulatory climate especially with respect to privacy of information.

• In summary, similar sort of adjustment challenges also face the country's electronics, information and communication technology, and automotive industries, but the three industries are dominated by foreign multinationals and hence the adjustment issue is more manageable as long as the country's investment environment is good and welcoming. In both the electronics and information and communication technology industries, improving the quality and depth of human capital is a key factor for deepening the county's comparative advantage in the two industries.

2.2.2 Role of Facilitative Institutions and Mechanisms

The papers bring out the important role of institutions in facilitating a smoother industrial adjustment process. The first one relates to the overall investment climate. The discussion above on the selected

industries highlights the importance of investment as a key mechanism for smoother industrial adjustment. This is best exemplified by the electronics and ICT-based service industries. Arguably, the industrial adjustment process for the whole manufacturing sector would not have been difficult in the 1990s if the sector generated more investments than what it did during the decade.

• Alba and Garde (2005) examined econometrically host determinants of foreign direct investments (FDIs) using cross section data for a large sample of countries. The factors relate to productivity, cost of doing business, and quality of governance. The results indicate that output per worker, physical capital stock per worker, average schooling of population 25 years and above, and population size all contribute positively to inflow of foreign direct investment. Rigidity of labor regulations has initial negative effect on FDI inflows, but after a certain point, the effect becomes positive. Time to close a business weakly discourages FDI inflow. The paper also finds that governance indictors do not have discernible impact on FDIs.

The last finding seems at odds with the general impression that the quality of governance has a lot of impact directly and indirectly on the inflow of FDIs. The results of an ADB-WB study on the investment climate indicate that macroeconomic instability, corruption, poor infrastructure, and inefficient customs are the major concerns of the business sector in the Philippines. Estimates of the cost of doing business in the Philippines arising from poor infrastructure, comparatively rigid labor laws, bribery, and weak contract enforcement amounted to an average of about 25 percent of total sales. This share is almost **twice** that for China and also higher than that for Indonesia. Considering that the Philippines has comparatively high cost of low skilled labor, especially taking into consideration labor productivity, it is probably not surprising that the country has been a laggard in attracting foreign direct investment among the countries in the region. The findings suggest that the quality of regulatory institutions and the bureaucracy have an impact on the overall investment climate and the inflow of foreign direct investment.

- Local government units can help facilitate smoother industrial adjustment. In the case of the Cebu furniture industry, the local government unit has been a strong supporter and facilitator. The case of the CALABARZON area, which is the country's new industrial heartland with its world class industrial estates housing many of the major multinationals operating in the country, probably shows more forcefully the positive role of local government units (see Chavez, 2005). The initiatives of the LGUs include the promotion of industrial peace (most prominently in Cavite, which became a major come-on to many firms to decide to locate in the Cavite zones), establishment of investment promotion centers, establishment of skills training centers, establishment of housing projects for workers, and funding of local infrastructures. These contributed further to the inherent competitive advantage of their area for export oriented firms.
- There are also a number of government agencies that have been important institutions in shaping the business climate for the industries (see Castel, 2005). The first is the Philippine Export Zone Authority (PEZA), which has been instrumental in the robust growth of export oriented firms based in the export zones and private industrial estates. PEZA has proven to be the more innovative and facilitative government agency compared to the Board of Investments in part because of the greater operational flexibility given it by law. As a result, PEZA zones are the preferred locations although fiscal incentives can be provided to non-zone locators by the Board of Investments. If PEZA has been a well regarded investment promotion agency, the Center for International Trade

Expositions and Missions (CITEM) has been well known as a key factor behind the good international reputation of the Philippines in gifts, furnishings, and holiday decors through its innovative trade fairs and product development assistance, in tandem with the Philippine Design Center. CITEM is now expanding into food and IT-services. Despite the overall success of CITEM, it is under-funded given that the country's export promotion program has been underfunded. The last institution discussed in Castel's paper is the Development Bank of the Philippines (DBP). Despite its mixed performance historically, DBP is noteworthy for taking the leadership role in facilitating the development of the Roll on-Roll off (RORO) shipping system in the country. The RORO allows for greater flexibility in the transport of goods across islands in an archipelago like the Philippines, reducing the cost of domestic shipping and thereby improve the competitiveness of Philippine industry.

- Most firms in the Philippines are family businesses. It is probably not surprising therefore that firm adjustment to external shocks involve adjustment in families. The study of Santiago (2005) shows that indeed owners look to their families to make adjustments in order for their business to survive during periods of external shocks. The adjustments that family members make include "...hiring family members with minimal pay, requiring family members to work longer, cutting down on luxuries, using family savings to pump the business, borrowing from relatives and consolidating family investments" (Santiago, 2005). There were also business adjustments, especially for the more professionally-run businesses. These adjustments included downsizing operations, reduction of production hours and output and undertaking cost reduction measures among others. Given the history of macroeconomic volatility of the Philippines, it is probably not surprising that there is preference for small, flexible and high-liquidity (or no debt) business strategy among family businesses. The implication is that the recovery phase in the country is more muted as expansion of the small businesses is more tempered. Indeed, the Philippines does seem to have more muted expansions than its neighboring countries.
- Logistics and infrastructure are important facilitation services for business. This is both an industry as well as a common service facility. The ADB-WB investment climate survey shows that the most important unnecessary cost to business is due to poor infrastructure. Moreover, this cost is particularly high on small enterprises as they have less leeway to rely on third party logistics providers and on economies of scale in power generation during power outages. In World Competitiveness Surveys, the Philippines always ranks near the bottom in terms of the quality of infrastructure among emerging economies. Sajid's (2005) paper hints at the importance of logistics and infrastructure as the logistics service moves in tandem with the growth of international and domestic trade. Thus, the importance of engendering greater competition in the logistics service industry and the need to encourage more private investment in infrastructure given the limited financial capability of the national government. Of special interest in the Sajid (2005) study is the role of the Clark-Subic area as a possible regional logistics hub and the potential for the establishment of logistics-based industries in the Clark-Subic area. It must be noted that, as in Singapore, an efficient logistics system allows for global sourcing of transportable goods to be combined with less mobile skilled labor and technology to undertake value adding processes and goods that can then be exported back. This is the "high end" version of the outward processing trade that is exemplified by garments internationally. The "high end" version tends to focus on the assembly of engineering goods industries and the more technology intensive industries like electronics.

As a final note, the project has not produced any new knowledge to the literature. This is **not** the
interest of the project by design. The interest of the project is to bring together the insights of
production networks and industry analysis in order to understand better the adjustment challenges
for Philippine industry and for the country's policy makers.

3.0 Progress in Achievement of Objectives

3.1 Regional

The regional papers provide insights towards successful industrial adjustment and upgrading. The papers also present suggestions for initiatives for regional cooperation. They include regional cooperation in advanced research, training and education, strategic alliances among private science parks, greater liberalization in trade and investment, improvement in trade facilitation measures, and capital market development. However, the project's regional component has one major failing: the studies in the regional component cannot quite address the first objective set out for the regional component. This objective is as follows: to examine the evolution of regional production networks, either in terms of specific industry clusters or the overall industry and trade patterns, and to determine how these shifts have affected selected sectors and countries. The regional component consists primarily of country papers and a regional paper on trade policy and its implications on regional cooperation agreements. Because they are country papers, the regional component papers delve in detail the country circumstances, the discussion on the country industries as they relate specifically to the regional production networks is not well articulated. What is lacking are the region-wide studies that explicitly bring the firm to firm or country to country interrelationships by industry in the East Asia region, which are what would provide the robust basis for addressing the objective set out above. (Such studies however are very expensive to undertake which the project cannot afford.) The Project addressed the issue of the evolution of regional production networks indirectly and obliquely through revealed comparative advantage measures in selected industries (e.g., electronics) presented in the industry papers.

3.2 National

The Philippine component papers address the objectives set out in the proposal and Grant Agreement.

4.0 Project Design and Implementation

As part of the regional study on production networks and their implications on trade and investment policies in the region and on regional cooperation in Asia, 5 of the original 6 country papers (with the exception of Indonesia, which has been replaced by an industry study on steel and a facilitative factors paper on the determinants of foreign direct investment) and 2 regional papers were presented during the 6th Asian Development Research Forum General Meeting, which was held on June 7–8, 2004 at the Siam City Hotel in Bangkok, Thailand. This section of the study was undertaken as part of the ADRF, specifically the Economic and Financial Governance working Group (EFGWG) of the ADRF, where Dr. Ponciano Intal, Jr., the leader for this project, was also the current coordinator of the EFGWG.

In addition, lounge lectures were co-sponsored with the Economics Department, De La Salle University on October 1 and 8, 2004 where the papers on regional production networks in the Philippines and trade policy environment and global production networks were presented. Both the ADRF conference and the

lounge lectures provided a useful forum to present initial findings and to get constructive comments and suggestions that served as a vital input in revising the papers.

The country papers for China, Malaysia, Thailand and Vietnam were also presented at the Final Public Presentation/Conference of the Project held on September 26–27, 2005 in Manila. There was lively interest on the country papers by the conference participants, especially the China paper.

The Philippine papers were also presented during the Final Public Presentation/Conference of the Project on 26–27 September 2005 in Manila. Around 90 people each day attended the two-day conference. Many of the participants come from the government and business sectors.

The Project leaders engaged members of the Project Advisory Group (e.g., Sec. Romulo Neri of the National Economic and Development Authority (NEDA) and Department of Budget and Management (DBM), Ambassador and PCCI President Donald Dee, Philippine Exporters Confederation, Inc. (PHILEXPORT) President Sergio Ortiz-Luis, Jr.) on an informal basis since we meet with them very frequently. The discussion sometimes would focus on industry specific issues and at other times on general reform issues and initiatives.

The papers rely mainly on analysis of secondary trade and production data, some case studies and firm interviews, and in a number of cases the use of revealed comparative advantage and value chain analysis. The use of value chain analysis is not rigorous. This is because of the lack of training of the researchers on value chain analysis. (The planned training on value chain analysis did not push through because the consultant fee in the budget is too low for the international experts being eyed.) At the same time, a rigorous value chain analysis approach may not have been warranted given the strong policy orientation of the project. A rigorous value chain analysis may be called for in a more academic project that for example looks at the governance issues of value chains. (Even here, the Philippines is likely to be a buyer-dominated chain for virtually all the industries considering that it is a minor player and a third-tier supplier at that in the industries concerned.)

The Project was not able to invite a foreign expert to the Final Public Presentation. The two experts invited were not available.

5.0 Project Output and Dissemination

The papers have been presented at the Final Public Presentation/Conference on 26–27 September 2005. The papers are being edited for publication into a book (three volumes). The book will be distributed to concerned government offices and officials, private sector organizations and academic (including research) institutions.

Copies of the papers have been sent to Philippine government officials who asked for them. It is the published book that will be sent to a wider audience.

The Institute will also support the preparation of policy briefs from the various papers. This is most opportune now as the country and the industries are now gearing up for the on-going Doha Round negotiations. The Angelo King Institute is involved in this process in partnership with PCCI and the Universal Access for Competitiveness and Trade (U-ACT) project under the Partnership and Advocacy in Competitiveness and Trade (PACT) project (managed by the Institute and PHILEXPORT)

This project has also fed into other advocacy-related activities of DLSU-AKI. The Institute completed the project "Industrial Adjustment and Upgrading for Competitiveness for Globalization and the RP-US Free Trade Agreement," which was funded by the Trade and Investment Policy Analysis and Advocacy Support (TAPS) Project of PHILEXPORT. This project takes into consideration the shifts in global production networks.

Moreover, we organized a series of roundtable discussions involving key businessmen, former government officials and academics aimed at developing a coherent program of policies and strategies to move the country forward, consistent with a social market economy perspective in the context of an open and competitive global economy. This was funded by the Konrad Adenauer Foundation (KAF), one of the partners of the Institute during the past three years. The result of this effort is a book, entitled "Economy, Society and Philippine Development: A Social Market Economy Framework for Philippine Development." This publication has been widely disseminated to all the members of the Cabinet and Congress, as well as academic institutions and the private sector.

The Angelo King Institute and the Congressional Planning and Budget Department of the House of Representatives, with the financial support of KAF, held a series of technical workshops entitled "Looking Ahead: Perspectives on Strategic Policy Areas," which involved the participation of members of the House of Representatives. The idea was to provide our legislators with inputs about key national issues and to help them prioritize their legislative agenda.

The conceptualization of the Targeted Interventions in Economic Reform and Governance (TIERG) project was strongly influenced by the production networks and support institutions perspective drawn from the IDRC project. Indeed, a number of activities in the TIERG project facilitate the implementation of reforms and programs needed to address concerns that are included in the IDRC project. The local production networks idea is given strong push in the TIERG project partly through the establishment of knowledge networks and through pilot projects in selected industries in selected areas in the country and through the training of local planners in development planning along the lines of local production networks. The country's foremost chamber of commerce, PCCI has just reorganized itself towards greater decentralization. The reorganization will provide the private sector push and counterpart to the local production networks strategy. This PCCI support for local production networks, in tandem with the DTI–ROG and the industry cluster group of the Export Development Council (EDC) is partly the result of the advocacy of the IDRC project team to the PCCI leadership.

6.0 Capacity Building

The project has been contributing to improve the research capacity of the faculty members of the De La Salle University–Manila. A number of the research team members are young and their involvement in the project strengthens their research experience.

The project has contributed also to the improvement in the institutional image of the Angelo King Institute. The project started off the series of projects that the Angelo King Institute has been undertaking and the very strong links of the Institute with the economic managers of the Philippine government and with top officials of the leading business associations in the country.

There is no particular contribution of the project to the capacity building of marginalized groups. Similarly, the project's positive impact on the capacity of women is largely limited the involvement of women researchers in the project.

7.0 Project Management

Very supportive IDRC officials and personnel.

8.0 Impact

The project has started to have some reach in the policymaking arena in the Philippines. Even as the papers were being written, the key focus of the project on production networks and the challenges of industrial adjustment for increased competitiveness in a globalizing world animated a number of the key activities in a major three-year project, called PACT, of the Angelo King Institute in partnership with PHILEXPORT (the country's foremost organization of exporters) for the Philippine government and the business community and funded by the US Agency for International Development.. The activities include the promotion of local production networks in selected industries as an industrial adjustment strategy for increased international competitiveness, support for private sector participation in international negotiations, establishment of a knowledge network for industry analysis and monitoring of adjustments to globalization and implications to international negotiations positions, improvement of investment climate at the local level, and encouragement of competition in logistics and public utility services. This USAID project is now ongoing and addresses a number of concerns important for industrial restructuring and upgrading to meet the challenges of globalization and economic integration.

It is worth noting that the impact can be subtle and yet important. For example, because of constant interaction with the top officials of the Philippine Chamber of Commerce and Industry (PCCI), PCCI has become more outward looking and less protectionist; it also has become a far more aggressive advocate for policy and institutional reforms in order to reduce the cost of doing business in the country. Similarly, the Cabinet secretary in charge of the National Anti-Poverty Commission (NAPC) has embraced more strongly the linking of improving investment climate at the local level especially in resource-based industries with poverty reduction programs. The Angelo King Institute is now in discussion with the Cabinet secretary head of NAPC in linking the community based monitoring system (CBMS)—another major IDRC initiative—with the promotion of improved investment climate and resource-based activities and local production networks in resource-rich Mindanao (where most of the provinces with higher-than-national average poverty rates are located).

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In part because of the IDRC project and as followed up by the PACT project, the De La Salle University-Angelo King Institute for Economic and Business Studies has become highly involved in policy advocacy and government-private sector linkages. The budget minister but soon-to-be returning secretary for socio-economic planning and designated chief economic manager of the country (Sec. Romulo Neri) has been in frequent touch with the Angelo King Institute's top officials (especially the Institute's Director for Development and Corporate Affairs but also the Institute's Executive Director) to sound out and get advice on a number of reform initiatives. (The latest initiatives during the past month or so are in alternative sources of energy, generating competition in electricity distribution, development of the domestic dairy industry, and agro-forestry program in Maguindanao. The most recent—as in yesterday—is that President Macapagal-Arroyo designated Sec. Romulo Neri as head of the pump priming committee to choose projects and disburse Php 35 billion. He decided to tap my paper on globalization and poverty (which was presented in an IDRCfunded conference at the University of British Columbia a few years ago) as a possible basis for the framework for the pump priming initiative. He is asking for more inputs from us. I intend to submit to Sec. Neri a number of the recommendations from the Project's papers for his consideration. He has actually read the powerpoint presentation of the integrative report for the project but he feels that the recommendations are too general.)

Similarly, for the former Presidential Assistant on Reforestation, the Institute facilitated the development of his new agro-forestry program that embodies more business and local production network perspectives. The Angelo King Institute currently supports, primarily through the PACT project, other government institutions; e.g., Commission on Information and Communication Technology (CICT), Department of Trade and Industry Regional Operations Group (DTI–ROG), Congressional Budget and Planning Department (CBPD) of the House of Representatives, Board of Investments (BOI), Autonomous Region of Muslim Mindanao, Department of Foreign Affairs Office of International Economic Relations, and Department of Energy (DOE).

9.0 Overall Assessment

The Project is well worth it. It catalyzed many of the initiatives that the Institute has been undertaking for the Philippine government and the private sector.