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DOMESTIC TECHNOLOGICAL INNOVATION: AN APPROACH TO SOLVING SOUTH KOREA'S LABOR PROBLEMS

Jeffrey F. Dickerman

Abstract: When Korea¹ became a democracy in 1987, Korea's militant labor movement erupted into a series of nationwide protests and explosive labor strikes. As a consequence, Korea's new democratic government enacted progressive labor laws aimed at increasing wages and improving working conditions for laborers. However, these new progressive labor laws lowered the productivity of businesses. Consequently, many Korean goods could no longer compete in the global market and Korean businesses faced bankruptcy. Tension now exists between Korean businesses and workers as each side attempts to regulate the Korean workweek. The competing interests between business and workers can be balanced by domestic technological innovation in Korea. Currently, Korean business imports expensive technology for its goods from other countries. Businesses often pay high royalty fees and enter into costly direct licensing agreements to get this technology. By creating technology domestically, Korean business can lower the amount of expensive technology it imports, earn higher profits, and still allow Korean workers to keep many of the rights given to them under the democratic government's progressive new labor laws.

I. INTRODUCTION

While most of Korea slept during the cold, early morning hours of December 26, 1996, 154 legislators of the ruling New Korean Party held a secret, emergency session of the National Assembly.² These legislators departed from four different Seoul hotels where they secretly chartered buses to the National Assembly Building in order to convene an emergency 6 A.M. session.³ Without the knowledge or presence of opposing

For the purpose of this Comment, "Korea" will refer to the Republic of South Korea.

² Kim Moody, Korean Workers Show How to Handle a Conservative Congress, DIGNITY IN LABOUR (visited Feb 12, 2000) http://www.citinv.it/associazioni/CNMS/archivio/lavoro/kor_workers.html. The New Korean Party is a political party in Korea and is the product of a 1990 merger between the ruling party and the New Democratic Party. Kim Young Sam, THE HUTCHINSON ENCYCLOPEDIA (1999) (visited Mar. 27, 2000) http://ukdb.web.aol.com/hutchinson/enclyclopedia/21MOO25721.htm. The National Assembly is Korea's legislature, which consists of individual Members, the Leadership, the Plenary, the Committees, the Negotiation Groups, and the administrative bodies for legislative assistance. For a detailed explanation of the organization and powers given to the National Assembly see The National Assembly Library (1988) (visited Mar. 27, 2000) http://node3.assembly.go.kr:6060/english/introduction/organization.html.

³ Sangwon Suh & Laxmi Nakarmi, Sneak Attack at Dawn: Union Protests Against Labor Law Reforms Threaten to Bring the Nation—and the Economy—to a Standstill, ASIAWEEK, Jan. 10, 1997, available in 1997 WL 7755574.

legislators,⁴ the New Korean Party passed eleven bills in just six minutes.⁵ The entire operation was covert and meticulously planned.⁶

Controversial labor reform bills passed during this pre-dawn session spawned a nationwide labor strike that crippled Korea's economy. The labor reform bills gave employers greater freedom to lay off employees, to replace existing employees with temporary workers, to replace striking workers with new hires, and to keep Korea's most militant labor unions illegal. Reaction to the National Korean Party's passage of the labor reform bills was swift and furious. Leaders from both the radical Korean Federation of Trade Unions and the moderate Federation of Korean Trade Unions called for a nationwide protest strike. Over 100,000 workers responded immediately, and by early January hundreds of thousands of workers were on strike. The unions demanded that these "evil laws" be repealed and asked the ruling New Korean Party to step down from office.

Meanwhile, the strikes inflicted serious damage on Korea's struggling economy. By January 8, 1997 the nationwide protest strikes had already cost Korea about 1.3 trillion won (approximately 1.54 billion U.S. dollars)¹² in production losses, and an additional 266 million dollars in export losses.¹³ The protest strikes impacted Korean manufacturing companies, domestic services, and Korean telecommunication institutions.¹⁴ For example, the strikes forced Hyundai Motor Company, Korea's largest carmaker, to scale back production of its automobiles from 5400 to about 400 cars per day.¹⁵

Moody, supra note 2.

Suh & Nakarmi, supra note 3.

⁶ See generally id.

⁷ Moody, supra note 2.

Suh & Nakarmi, supra note 3.

Moody, supra note 2.

David Holly, S. Korean Strikes in Crucial Phase, Analysts Say Asia: President Kim Rejects Unions' Demand to Scrap New Law Making It Easier to Lay Off Workers, L.A. TIMES, Jan. 7, 1997, at A12. It is estimated that 610,000 Korean workers walked off their jobs during the peak of the strike. Teresa Watanabe, S. Korean Strikes Widens, Threatens to Cripple Nation Asia: Union Leaders Say 610,00 Have Left Jobs in Country's Largest Walkout, L.A. TIMES, Jan. 14, 1997, at A1. Moreover, the strikes became violent. In many cities Korean police fired tear gas at violent protesters. In response, some demonstrators hurled fragments of concrete and struck Korean police officers with metal pipes. What's News World-Wide, ASIAN WALL ST. J., Jan. 10, 1997, available in 1997 WL-WSJA 3794559.

¹¹ Suh & Nakarmi, supra note 3; Moody, supra note 2.

Unless otherwise specified, all dollar values in this Comment refer to U.S. currency.

Namju Cho, As Kim Lauds Law, Unions Threaten to Widen Strikes, ASIAN WALL ST. J., Jan. 8, 1997, available in 1997 WL-WSJA 3794403.

¹⁴ See id. In Korean hospitals, a few union members would take turns covering emergency rooms and caring for seriously ill patients. More then half of the workers at the government-run Korean Broadcasting Company joined the strike. Id. Labor leaders estimated that over 1,800 Korean businesses were affected by the nation wide protest strikes. Watanabe, supra note 10, at A1.

¹⁵ Namju Cho, supra note 13; see also Korean Opposition Boosts Pressure On Government-Battle Over Labor Law Intensifies, Sun-Sentinel Wire Services, Jan. 23, 1997, available in 1997 WL 3083227.

Furthermore, the nationwide protest strikes continued for a total of three weeks and cost the Korean economy over three billion dollars in production losses 16

The protest strikes subsided in late January 1997, once Korean President Kim Young Sam allowed opposition parties to revise the labor reform law. The revisions to the labor reform law cut back on the rights given to businesses by the New Korean Party during the pre-dawn emergency session. 17 The revisions restored job security by making it more difficult for businesses to lay off employees and replace striking workers with new hires. 18 Moreover, the revisions legalized the Korean Confederation of Trade Unions, which would not have been recognized for another three years under the original law. 19

Even so, labor unions and Korean workers remained dissatisfied with the revised labor law.²⁰ Businesses were also unhappy with the revised law. Businesses expected the revised labor laws to increase industry competitiveness by creating a more flexible labor market.²¹ Labor unions and workers were disappointed with the revised labor law because they believed that the ambiguous wording of the law would still allow Korean companies to dismiss workers too easily.²² As a consequence, tensions mounted between workers and business management over the regulation of the workforce ²³

¹⁶ S. Korea Strikes Cost \$3.17B in Production, Export Losses, Dow Jones News Service, Jan. 15, 1997: Michael Schuman & In Kyung Kim, New Labor Law in South Korea Fails to Appease, ASIAN WALL St. J., Mar. 11, 1997, available in 1997 WL-WSJA 3798947.

See generally Schuman & Kim, supra note 16.
 Id.; see also Teresa Watanabe, S. Korea Revises Disputed Labor Law Asia: Bill Offers Expanded Union Rights. Compromise Is Unlikely to Ease Anger that Triggered Widespread Strikes, L.A. TIMES, Mar. 11, 1997, at A9 [hereinafter S. Korea Revises Disputed Labor Law].

¹⁹ Schuman & Kim, supra note 16; see also S. Korea Revises Disputed Labor Law, supra note 18, at

²⁰ S. Korea Revises Disputed Labor Law, supra note 18 at A9. Park Young Ki, an Industrial Relations professor at Songang University called the new law "a flawed compromise that will not please

²¹ Schuman & Kim, supra note 16. Korean businessman Mr. Jeong Si Wha, a director at Ssanguong Cement Industrial Co. stated, "the new law is worse than the original form of the bill, it only speaks for

labor." Id.

22 Id. The Korean Confederation of Trade Unions believes that the vaguely worded law will allow the strength of the Korean Confederation of Trade Unions believes that the vaguely worded law will allow the strength of the stre any business claiming financial difficulty to lay off workers and threatened to call more strikes in May. Id.

²³ South Korean Workers Go on Strike for More Rights, AP Newswire, Dec. 23, 1999, available in WESTLAW, Allnewsplus Database [hereinafter South Korean Workers Go on Strike for More Rights]. As recently as December of 1999, thousands of Korean workers held strikes and marched through central Seoul demanding the government reduce the workweek from 44 to 40 hours per week with a change in workers' pay and revise the labor laws to allow greater union activity. Id.; see also Christopher Torchia, Once Defiant, South Korea's Labor Movement Recasts Image and Goals, Associated Press Newswires, Dec. 13, 1999. The Federation of Korean Industries, South Korea's most powerful business lobby

The covert passage of the new labor laws, the following protest strikes, and the eventual repeal of the 1996 emergency labor law illustrate the urgent, conflicting interests that threaten the viability of Korea's industrialization strategy. This Comment argues that Korea must resolve this conflict by increasing investment in the development of domestic technological innovation. Part II examines Korea's industrialization and history of poor labor standards and labor union suppression. Part III explores Korea's democratization and the recent passage of new progressive labor laws. Part IV explains why it is unlikely that the Korean government will rescind the new progressive labor laws and concludes that a greater investment in domestic technology could help to solve Korea's labor problem.

II. KOREA'S INDUSTRIALIZATION: LOW-WAGE LABOR RESERVES AND POOR LABOR STANDARDS

Korea, like many other East Asian countries, used an export-oriented growth strategy in order to industrialize.²⁴ Export-oriented industrialization is achieved through the production of cheap goods for export.²⁵ Following the Korean War, Korea promoted manufacturing exports in order to transform the country from an agrarian based economy to an industrialized economy.²⁶

Korea was successful in using an export-oriented growth strategy because cheap labor was abundant at the beginning of Korea's industrialization process. Initially, Korea had an "unlimited supply" of large, low-wage labor reserves. Three factors created these low-wage labor reserves: high population growth rates, internal emigration patterns, and government suppression of labor union organization.

representing over 400 major Korean companies, opposed the workers' demands. South Korean Labor Leaders Keep Up Protests, AP Newswire, Dec. 6, 1999, available in WESTLAW, Allnewsplus Database.

Many other Asian countries such as Hong Kong, Taiwan, and Singapore also achieved industrialization using an export-oriented growth strategy. See FREDRIC DEYO, BENEATH THE MIRACLE LABOR SUBORDINATION IN THE NEW ASIAN INDUSTRIALISM 12-23 (1989).

²⁵ See generally Hans Linnemann et al., Export-Oriented Industrialization in Developing Countries 112 (1987); Alan S. Gutterman, Japan and Korea: Contrasts and Comparisons in Regulatory Policies of Cooperative Growth Economies, 8 Int'l Tax & Bus. L. 267, 283 (1991).

²⁶ LINNEMANN ET AL., supra note 25, at 318, 323.

²⁷ For a detailed discussion of Korea's large low-wage labor reserves see Alice Amsden, South Korea's Record Wage Rates: Labor in Late Industrialization, 29 INDUS. REL. 77 (1990).

A. Population Growth Rates and Internal Emigration Patterns

The growth of Korea's population after the Korean War was an important factor in Korea's industrialization. In the 1960's, when Korea began its industrialization process, it had an average population growth rate of 2.5% per year.²⁸ This is two and one-half times greater than the population growth rate of industrialized countries in the 1960's.²⁹ Internal emigration patterns also contributed to Korea's high population. Fewer than 500,000 Koreans emigrated permanently between 1962 and 1982.30 In contrast, more than forty million Europeans left Europe during its industrialization process in the late 1800's.³¹ As a consequence, Korea's high population growth rate coupled with its low emigration rates created a large population during the country's industrialization. 32

Korea's high population density and inequitable income distribution ensured a large labor force.³³ By 1960, one-fifth of the industrial and agricultural work force in Korea was unemployed.³⁴ This dramatic surplus of labor contributed to lower wage levels in Korea.³⁵ Moreover, masses of out-of-work Korean laborers moved into the cities.³⁶ During Korea's industrialization, more than one-third of the Korean population moved from rural farms to cities.³⁷ By 1987, forty percent of all Korean citizens lived in one of the country's four major cities, as compared to only ten percent in 1960.³⁸ These unemployed laborers were grateful to have jobs regardless of the pay and were fearful of speaking up against employers.³⁹ Korea's

²⁸ Id. at 80. Korea's population growth rate decreased from 2.5% in 1965 to 0.9% in 1993. Korea's Per-Capita GNP Was \$6,330, KOREA ECON. DAILY, May 26, 1993, available in WESTLAW, Allnewsplus Database. In population density, Korea was placed tenth in the world with 428 people per square kilometer. Id.

²⁹ See Amsden, supra note 27, at 80. Industrialized countries had an average annual population growth rate of only 1.0%. Id.

 ³⁰ Id.
 31 Id.

³² See generally id. at 79-80.

³⁴ Id. (citing W. D. Reeve, The Republic of Korea: A Political and Economic Study (1963)).

³⁵ See generally id.

³⁶ See Gutterman, supra note 25, at 279.

³⁸ Id. at 279 n.48. By 1996, one quarter of Korea's 45-million inhabitants lived in the greater Seoul area. Kang Yeoun, Rental System 'Desirable' for Young Housing Seekers, KOREA HERALD, May 5, 1996, available in WESTLAW, Allnewsplus Database.

Most of Korea's industrial work force was recruited from the countryside, where farmers were on the margin of subsistence living, accustomed to hard work, and desperate to improve their family's economic situation. Ezra Vogel & David Lindauer, Toward a Social Compact for South Korea in THE STRAINS OF ECONOMIC GROWTH: LABOR UNREST AND SOCIAL DISSATISFACTION IN KOREA 99 (1997); see

compliant workforce created an attractive environment for the laborintensive manufacturing industries that began to develop as Korea industrialized.

B. The Korean Government's Suppression of Labor Union Organization

Direct government suppression of labor union organization was the most influential factor in creating cheap labor during Korea's industrialization. Traditionally, countries that industrialize by importing foreign technology, rather than through domestic technological innovation, are extraordinarily hostile towards labor unions. Korea, which has relied on the importation of foreign technology, is no exception. The Korean government used two major laws to control labor unions and keep wages artificially low: Labor Union Act. and the Labor Dispute Mediation Act. 44

also Jennifer Porges, Comments the Development of Korean Labor Law and the Impact of the American System, 12 COMP. LAB. L. 335, 348, 354 (1991).

40 Amsden, supra note 27, at 77.

⁴¹ In addition to suppressing labor unions in order to achieve low-wages and produce cheap goods for export, the authoritarian government suppressed labor unions to maintain its grip on power. When Korea began its industrialization process, the country was ruled by General Park Chung Lee. Park's government has been characterized as illegitimate because he did not gain power through an election. Unions opposed Park and challenged the economic viability of his export-oriented industrialization strategy. Consequently, Park suppressed labor unions because such public dissent threatened to his authoritarian regime. WALDEN BELLO & STEPHANIE ROSENFELD, DRAGONS IN DISTRESS: ASIA'S MIRACLE ECONOMIES IN CRISIS 47-50 (1990). When Park took power in 1961, the Korean government immediately banned all strikes, deregistered existing unions, and arrested union activists. Fredric C. Deyo, State and Labor: Modes of Political Exclusion in East Asian Development, in THE POLITICAL ECONOMY OF THE NEW ASIAN INDUSTRIALIZATION 182, 185 (Fredric C. Deyo ed., 1987). Furthermore, the government encouraged businesses to hire thugs to threaten and assault union organizers and kidnap union members in order to brainwash them at "purification camps." GEORGE E. OGLE, SOUTH KOREA: DISSENT WITHIN THE ECONOMIC MIRACLE 55-62 (1990).

The Korean government also passed the Labor Management Council Act, which required that certain employers set up intraoffice consultation committees. These committees were to be consulted on issues related to worker productivity, the prevention of labor disputes, and procedures for resolving employee grievances. The committees undermined the collective bargaining process because employers preferred to consult with these committees rather than bargain with labor unions. See Laura Watson, Labor Relations and the Law in South Korea 7 PAC. RIM L. & POL'Y J. 229, 237-38 (1998).

⁴³ Nodong chohappop [Labor Union Act] (adopted Dec. 7, 1963) [hereinafter Labor Union Act] translated in LAWS OF THE REPUBLIC OF KOREA 1296 (Korean Legal Center, ed. 1964).

Nondongchaengui chochongpop [Labor Dispute Mediation Act] (Apr. 17, 1963) [hereinafter Labor Dispute Mediation Act] translated in LAWS OF THE REPUBLIC OF KOREA III-290 (Korean Legal Center, ed. 1983).

1. The Labor Union Act

The Labor Union Act, helped Korea's authoritarian government maintain complete control over labor unions. It prevented many unions from organizing and required extensive supervision of recognized labor unions. 45 Thus, the Korean government was able to prohibit any union activity that would put labor unions in a position to challenge Korea's industrialization plan.46

The Labor Union Act placed labor unions under extensive government supervision. To be recognized under the Labor Union Act, Korean labor unions were required to file a comprehensive report to a government administrative authority.⁴⁷ The administrative authority then had the power to recognize the union, to refuse to recognize the union, or to delay recognition of the union until more information was filed.⁴⁸ The decision to recognize a union was political.⁴⁹ Often, the administrative authority would delay recognition of the union in order to give employers the opportunity to break up the union before it was officially recognized or to allow employers to quickly register a faux union instead.⁵⁰

Once the union was recognized, government supervision continued. The Korean government had an unlimited right to inspect union meeting records,⁵¹ to change the union charter,⁵² and to audit union financial records.⁵³ Labor union collective bargaining could not occur without state approval,54 and the Korean government could force a union to change its decisions or to render the decisions null and void.⁵⁵ Moreover, the Labor Union Act prohibited unions from participating in political action. Labor unions could not conduct activities that would promote the election of a particular political party or a specific political candidate. 56 Labor unions

⁴⁵ See infra notes 47-49.

⁴⁶ See infra notes 56-58.

Labor Union Act, supra note 43, art. 13(1).

⁴⁸ See id. art. 15.

⁴⁹ JANG JIP CHOI, LABOR AND THE AUTHORITARIAN STATE: LABOR UNIONS IN SOUTH KOREA MANUFACTURING INDUSTRIES, 1961-1980 103 (1989).

OGLE, supra note 41, at 58. Employers who quickly registered a pro-business union were at a great advantage because the Korean government would only recognize one union per company. Id.; see also Watson, supra note 42, at 234.
Labor Union Act, supra note 43, art 30(1).

³³ Id. art. 25. A labor union's financial records were audited every six months, or more frequently at the discretion of the government auditor. See id.

See id. art 34(2).
 Id. art 21.

⁵⁶ Id. art 12(1).

could not collect political contributions from union members, and labor union funds could not be used for political purposes.⁵⁷ The Korean government used the Labor Union Act to insulate its regime by prohibiting labor unions from engaging in political activity.58

The Labor Dispute Mediation Act 2.

The Labor Dispute Mediation Act, enacted in 1963, regulated labor union strike activities, including general union activity and collective bargaining agreements. Over time, Korean workers became extremely militaristic. 59 Korean unionists tried to engage in massive strikes and demonstrations. However, the Labor Dispute Mediation Act allowed the Korean government to control and intervene in these labor union activities.

The Labor Dispute Mediation Act made it difficult for labor unions to hold legal strikes. Under this law, a strike could take place only after the labor union notified the employer, the labor committee, and government administrative authority. 60 Moreover, the law required that labor unions "cool off" for twenty to thirty days (depending upon the industry) before instituting a strike. 61 During this cool-off period, employers were free to take retaliatory measures to prevent the union strike from occurring. 62 All strikes in the public sector, or against local government, public utilities. or any business deemed important to the national economy were prohibited.⁶³ Consequently, the Korean government was able to outlaw any labor strike by defining which industries were important to the Korean national economy.

The Korean government also played a central role in resolving disputes between employers and labor unions. The Labor Dispute Mediation Law required disputing parties to attempt conciliation during labor strikes.⁶⁴ Unsuccessful conciliation permitted disputing parties to proceed to mediation⁶⁵ and binding arbitration.⁶⁶ These dispute resolution provisions

Id. arts. 12(2) & (3).
 See generally Porges, supra note 39, at 345.

⁵⁹ Watson, *supra* note 42, at 235.

⁶⁰ See Labor Dispute Mediation Act, supra note 44, arts. 5, 16.

⁶¹ Id. art. 14
62 See id. art. 17; see also Watson, supra note 42, at 235.

Labor Dispute Mediation Act, supra note 44, art. 40; see also Deyo, supra note 41, at 188.

Labor Dispute Mediation Act, supra note 44, arts. 18-21.

Id. arts. 20, 22. Traditionally, a mediation panel consisting of three people will issue a written recommendation, which becomes binding if the parties agree to it. Id. arts. 23(3), 29.

⁶⁶ Id. art. 30. Binding arbitration was often used when strikes affected a public utility or when both parties requested binding arbitration in lieu of conciliation and mediation. Id.

put labor unions at a great disadvantage, because the Korean government colluded with businesses when it intervened during the strikes.⁶⁷ Consequently, Korean unions perceived mandatory dispute resolution as a government device to further suppress labor organization. 68

In summary, Korea used an export-oriented growth strategy to successfully industrialize. Large labor reserves and the Korean government's suppression of labor union organization contributed to artificially low wage levels for Korean workers. 69 The Labor Union Act and Labor Dispute Mediation Act made it difficult for labor unions to organize. engage in political activity, and hold effective labor strikes. Together Korea's large labor reserves and the government's suppression of labor union organization precluded Korean workers from exerting economic leverage on Korean businesses when negotiating for better working conditions.

C. The Consequences of Korea's Industrialization

As a result of Korea's large labor reserves and government suppression of labor union organization, Korean workers were subjected to long working hours, 70 poor work safety conditions, 71 and low wages. 72 Ultimately, Korean workers became distrustful of businesses and the government.

During Korea's industrialization, Korean laborers had a long and extremely dangerous workweek. In 1986, the year before Korea became a democracy, Korea was the only country in the world to report a workweek of more than fifty hours per week. The average Korean worked 54.7 hours per week, while the workweek in other countries was significantly shorter.⁷⁴ Korean work conditions were also dangerous. The number of industrial fatalities and occupational injuries increased throughout Korea's industrialization.⁷⁵ For example, the number of worker fatalities rose from

Watson, supra note 42, at 236.

See infra notes 73-80 and accompanying text.

Joung-Woo Lee & David Lindauer, The Quality of Working Life, in THE STRAINS OF ECONOMIC GROWTH: LABOR UNREST AND SOCIAL DISSATISFACTION IN KOREA, supra note 39, at 80.

⁷² Barry Wilkinson, *The Korea Labour Problem*, 32 BRIT. J. of INDUS. Rel. 342 (1994).

⁷³ LEE & LINDAUER, supra note 70, at 80 (citing THE INTERNATIONAL LABOR ORGANIZATION, YEARBOOK OF LABOUR STATISTICS (1987)).

⁷⁴ Id. For example, the average weekly hours worked that same year in Denmark was 33.0; the United States: 40.7; Japan: 41.1; South Africa: 46.7; Mexico: 47.3 and Singapore: 48.5. Id. ⁷⁵ Id. at 83-86.

845 in 1974 to an alarming 1761 in 1987.76 As Korea industrialized, the Korean workforce was subjected to the longest work hours in some of the most dangerous factories in the world.⁷⁷

The Labor Union Act and Labor Dispute Mediation Act ensured low wages during Korea's industrialization by preventing strikes and labor union organization. In 1975 the average wage of a Korean production worker in manufacturing was \$.33 per hour.⁷⁸ Corresponding workers in other countries earned considerably more. ⁷⁹ By 1987, the average wage in Korea had risen to \$1.65 per hour, but was still significantly less than in other countries.80

Cheap labor and efficient manufacturing were the cornerstones of Korea's export-oriented industrialization. 81 Cheap labor was abundant when Korea began its industrialization. Korea's large low-wage labor reserves were perfectly compatible with the country's export-oriented growth strategy. Furthermore, laws suppressing organized labor enhanced the legitimacy of Korea's authoritarian government and allowed issues such as long working hours, poor occupational safety, and low wages to go unaddressed. 82 Korean workers received most of the burden as the government faced pressure to keep cheap labor in order to help businesses and the country stay competitive in the global market.83

THE EFFECT OF KOREA'S DEMOCRATIZATION ON LABOR CONDITIONS III.

When Korea became a democracy in 1987, the government could no longer suppress labor unions and still maintain a smooth industrialization process. Unionists' concerns such as hazardous working conditions, long workweeks, and low wages ignited a highly volatile labor movement. Massive strikes ensued, and the Korean government began changing its pro-

⁷⁶ Id. (citing MINISTRY OF LABOR, YEARBOOK OF LABOR STATISTICS and MINISTRY OF LABOR, ANALYSIS OF OCCUPATIONAL INJURIES.)

⁷⁷ Id. at 80-87.
⁷⁸ Wilkinson, supra note 72, at 342.

⁷⁹ Id. A worker in the same industry in the United States earned an hourly wage of \$6.36, \$3.05 in Japan, \$0.76 in Hong Kong and \$0.84 in Singapore. Id.

Id. Workers in the notoriously low wage countries of Hong Kong, Singapore, and Taiwan were paid an hourly wage of \$2.09, \$2.31 and \$2.26 respectively. Id.

⁸¹ See EZRA VOGEL, THE FOUR LITTLE DRAGONS THE SPREAD OF INDUSTRIALIZATION IN EAST ASIA 42 (1990); see also BELLO & ROSENFELD, supra note 41, at 167.

See supra notes 60-72 and accompanying text.

³³ Johanna Son, Asia Economy: Strikes in S. Korea Expose Flaws in Growth Formula, Inter Press Service, Jan. 17, 1997, available in WESTLAW, Allnewsplus Database.

See Porges, supra note 39, at 354.

business labor laws.85 Through Korea's democratization, labor unions became successful in addressing the grievances of workers. 86 Throughout the late 1980s and early 1990s the Korean government passed progressive new labor laws that improved the compensation and working conditions of the Korean workforce.⁸⁷ New legislation also removed obstacles that made it difficult to establish labor unions and gave existing Korean labor unions more autonomy. 88 As a consequence, the bargaining capabilities of labor unions increased and they were better able to address the concerns of Korean workers.

A. Korea's Progressive New Labor Laws

In June 1987, the Korean government announced that it would hold free elections and become a democracy.⁸⁹ As a result, there was an explosion of labor strikes and worker activism. 90 Many labor groups protested the government's repressive labor laws and the growing dissent culminated in highly politicized strikes and demonstrations by workers.⁹¹ Prior to 1987, Korea averaged only 174 strikes per year, due largely to the repressive Labor Union Act and Labor Dispute Mediation Act. 92 In contrast, during the summer of 1987 over 2500 strikes took place.⁹³ These strikes forced the government to make changes to improve conditions for Korean workers.94

Much of the world watched the Korean government's reaction to the 1988 labor strikes, which directly preceded the Olympic Games in Seoul.⁹⁵ Korea's political stability and reputation as an industrialized country were in ieopardy. 96 In order to end the strikes and unite the country, Korea's new democratic government made major concessions and began passing

⁸⁵ Id. at 354-58.

⁸⁶ Id.; see also infra notes 89-96 and accompanying text.

⁸⁷ See infra notes 129-36 and accompanying text.

⁸⁹ Michael R. Curran, On Common Ground: Using Cultural Bias Factors to Deconstruct Asia-Pacific Labor Law, 30 GEO. WASH. J. INT'L L. & ECON. 348, 388 n.161 (1997).

⁹⁰ Id. at 388.

Porges, supra note 39, at 354.

⁹² Curran, *supra* note 89, at 388.

⁹³ Id. More than 4300 strikes occurred in Korea between 1987 and 1993. Id. Manufacturing strikes accounted for more than half of the strikes during this period. Id. It is estimated that Korean workers initiated more labor strikes during the two months of July and August of 1987, than in the previous quarter of a century. Vogel & Lindauer, supra note 39 at 93.

Porges, supra note 39, at 354.
 Id.

⁹⁶ Id.

progressive labor laws. The new legislation promoted a far more democratic and unionized labor movement. The new labor laws provided for tougher industrial safety regulations, more labor union autonomy, higher wages, better leave policies, and increased job security. These new labor standards illustrated the democratic government's commitment to the Korean workforce.

1. Industrial Safety Regulations

In 1991, the Korean government launched a six-year plan to improve occupational safety through the Industrial Safety Health Act. Under this plan, workers became legally entitled to information about the hazardous materials they were using, and the government was given greater control to regulate the use of dangerous materials.⁹⁷ The plan enabled the Korean government to withhold approval of hazardous equipment and chemicals⁹⁸ and required that companies adopt specific worker safety measures. 99 The plan required most Korean companies to establish and operate a special safety and health committee, which was composed of an equal number of management and labor representatives. 100 The committee addressed the industrial safety concerns of company workers. 101 The plan also mandated that many Korean business owners staff an industrial health doctor at the workplace 102 and conduct an education program on work safety and health for all company workers. 103

2. Increased Access to Labor Unions

Establishing labor unions became easier under Korea's new democratic government. Amendments to the Labor Union Act made in 1987 removed many government restrictions on union formation. The waiting period to establish a union was shortened, 104 and the amount of paperwork

⁹⁷ Mark Clifford, Counting the Costs, 21 FAR E. ECON. REV. 64 (Nov. 1991); see also Industrial Safety and Health Act (adopted Jan. 13, 1990) [hereinafter Industrial Safety and Health Act], art. 40, translated in CURRENT LAWS OF THE REPUBLIC OF KOREA 3587 (Korea Legislation Research Institute ed., 1998).

98 Industrial Safety and Health Act, supra note 97, art. 34.

⁹⁹ *Id.* art. 23. 100 *Id.* art. 19.

¹⁰¹ *Id*.

¹⁰² Id. art. 17.

Porges, supra note 39, at 355.

required was reduced. 105 Moreover, the requirement that a union have a minimum number of members before it formed was eliminated. 106 Therefore, the amendments permitted a minority of workers to establish a labor union. As the government removed many obstacles to labor union formation, the rate of unionization in Korea increased dramatically. 107

3 Compensation and Employment Security

After 1987, the Korean government also passed liberal legislation increasing worker compensation, paid leave, and job Consequently, Korea's minimum wage rose while the workweek became shorter. Employers were forced to implement progressive paid leave policies and education assistance programs. The new laws also increased job security by limiting an employer's ability to dismiss workers for administrative reasons.

The Minimum Wage Act is a comprehensive set of rules regulating wages in Korea. The purpose of the Minimum Wage Act is to "stabilize workers' lives and to improve the quality of the labor force by guaranteeing them a certain minimum level of wages."

The Minimum Wage Act requires the Korean Ministry of Labor to establish a Minimum Wage The Minimum Wage Council researches, deliberates, and submits a minimum wage proposal to the Korean Ministry of Labor every vear. 110 The new legislation requires that Korea's minimum wage be determined according to this minimum wage proposal. 111 Consequently, Korea's minimum wage is determined on an annual basis, thereby allowing for yearly wage increases. 112

In the early 1990's the Korean workweek was shortened significantly. New legislation restricted Korean laborers from working more than 44 hours

106 Porges, supra note 38 at 355 n.115 (citing Korea's Employers' Federation, Industrial RELATIONS IN KOREA, 1980-1987 31 (1987)).

Porges, supra note 38, at 355 n.116 (citing A. Rauenhorst, Industrial Relations in Korea: The Backdrop to the Current Drama 6 (Jan. 30, 1989) (unpublished manuscript)). In 1981 there were 2,141 trade unions. By 1989, just two years after the Labor Union Act amendments, there were over 7,800 trade unions in Korea. Id.

Minimum Wage Act (adopted Dec. 31, 1986) [hereinafter Minimum Wage Act], art. 1, translated in Current Laws of the Republic of Korea 3586 (Korea Legislation Research Institute ed., 1998).

¹⁰⁹ Id. art. 12. The council is composed of nine members, representing workers, employers, and the public interest. Id. art. 14.

¹¹⁰ *Id.* art 8.

The minimum wage must be determined by the fifth of August every year. Id.

per week. 113 Exceptions to this statutory working hour requirement were not permitted. After Korea's democratization, the government prohibited flexible working-hour systems (working forty hours one week and forty-eight hours the next week), even when both laborers and employers preferred such flexible systems. 114 The forty-four-hour workweek required a Korean employer to pay workers an extra fifty percent for every hour they worked above forty-four hours a week. 115 Women and minors could not work between the hours of "10 P.M. and 6 A.M." unless they specifically consented to working the shift and the Korean Ministry of Labor approved. 116 Moreover, any male employee who worked between the hours of 10 P.M. and 6 A.M. was paid a night premium of fifty percent of his normal hourly wage in addition to any regular wages or overtime pay. 117

The new laws forced Korean employers to provide paid leave and educational opportunities for company employees. For instance, under the new laws, all female employees in Korea enjoy a one-day paid menstruation leave per month. Mothers nursing infants under the age of one were given two thirty-minute periods of paid leave every day. All employees earned one day of paid leave per month that could be accumulated up to one year. In addition to the paid monthly leave, employees with good attendance records earned an extra eight-day or ten-day paid annual leave. If a person employed more than thirty people under eighteen years of age, they had to establish an educational facility for them, or, with the approval of the Ministry of Labor, award scholarships to each employee under eighteen

¹¹³ See infra notes 114-15 and accompanying text.

¹¹⁴ Jeong-Ho Cho, How the Korean Government Has Proceeded with Core Labor Issues (visited Jan. 26, 2000) http://www.koilaf.org/koilaf_new/comt002.html. This was the law in Korea for many years until 1997, when the Korean government allowed employers to implement a flexible working hour system on a fortnightly and monthly basis. However, during the late 1980's and early 1990's, such flexible working shifts were not available to Korean workers. Id.

¹¹⁵ Id.

¹¹⁶ Labor Standards Act (adopted Mar. 13, 1997) [hereinafter Labor Standards Act], art. 68, translated in Current Laws of the Republic of Korea 3539 (Korea Legislation Research Institute ed., 1998).

Sandra R. McCandless et al., Employing Workers Abroad: A Guide to Legal Requirements of Employment Relationships in Selected Nations, 23 FALL BRIEF 30, 36 (1993).

Labor Standards Act, supra note 116, art. 71.

¹¹⁹ Id. art. 73.

¹²⁰ Id. art. 57.

¹²¹ Id. art. 59. A worker will receive an additional ten-day annual paid leave if the worker has not been absent during the course of a full year of work. Eight days of annual paid leave is awarded to workers who have a ninety percent rate of attendance during one year. An additional day of annual paid leave is granted for every consecutive year of employment after the worker has completed the first two years of employment. Id. Therefore, a worker can take up to twenty days of annual paid leave per year and an employer can substitute ordinary paid wages for the number of days in excess of twenty days, instead of granting additional paid leave. Id.

Moreover, an employer was required to pay for all travel expenses when an employee under eighteen years of age returned home after their dismissal from work. 123

Along similar lines, new laws also made it difficult for Korean employers to dismiss workers. In order to dismiss or transfer any worker, Korean employers had to prove that the business is in a state of emergency. 124 The laws also required that employers make every effort to avoid the dismissal of an employee. 125 All employers must consult any organized labor unions regarding methods for avoiding dismissal and the criteria for the dismissal of employees. Thirty days advance notice must be given to dismissed employees. 126 If proper advance notice is not given, the employer must pay ordinary wages for the remainder of the thirty days. 127 The laws also mandated that if employers wish to hire new workers within two years of a company dismissal, the company must first make every effort to preferentially re-employ any dismissed worker. 128

The Impact of Pro-Labor Laws on the Korean Worker R

Compared to Korea's history of poor working conditions, low wages, and labor union suppression, the new labor laws were a major advancement for Korean workers. The workweek was shortened and progressive paidleave policies were implemented. Korean workers could more easily form unions and they had better job security. However, the high-wage growth rate probably had the biggest effect on Korean workers, as their salaries now rivaled and even surpassed those in advanced industrialized countries.

The Korean government's six-year plan to increase occupational safety was successful. After the democratic government enacted the Industrial Safety and Health Act, the number of worker accidents began to decrease. The number of reported accidents in the Korean manufacturing industry decreased from 59,180 in 1991 to 39, 292 in 1994. 129 Furthermore, those workers who were injured found it easier to claim compensation from

¹²² Id. art. 75; but see Act No. 5885 (adopted Feb. 8, 1999) (deleting Article 75 of the Labor Standards Act, supra note 116).

¹²³ Id. art. 74; but see Act No. 5885 (adopted Feb. 8, 1999) (deleting Article 75 of the Labor Standards Act, supra note 116).

Labor Standards Act, supra note 116, art. 31.
 Id.

¹²⁶ *Id*.

¹²⁷ *Id.* art. 32.

¹²⁸ Id. art. 31-2.

¹²⁹ Byung Yong Jeong, Characteristics of Occupational Accidents in the Manufacturing Industry of South Korea, 20 INDUS, ERGONOMICS 302 (1997).

their employers. 130 The plan made great strides to improve the dangerous working conditions in Korea.

Korean workers also enjoyed improvement in the length of their workweek. Korean workers were provided with paid vacations and the new laws required employers to implement accommodating paid leave policies for pregnant employees and women with young children. In fact, the length of the average Korean workweek decreased nine and one-half hours per week in just five years. 131 Nonetheless, Korean laborers continued to fight for further reductions in the workweek. Korean workers struck as recently as December of 1999, demanding that the Korean workweek be cut from forty-four hours per week to forty hours per week. 132

The Minimum Wage Act and the amendments to the Labor Union Act led to dramatic increases in Korean wages. The Minimum Wage Act allowed the Korean minimum wage to be increased on a yearly basis. The amendments to the Labor Union Act made it easier for labor unions to form. thus providing workers with more leverage when bargaining with employers. Between 1986 and 1990, the average wage of manufacturing production workers more than doubled in Korea, reaching \$3.82 per hour. 133 Furthermore, the average Korean wage continued to increase by nine percent in 1992 and by an additional fifteen percent in 1993. 134 By 1996, the average wage of a Korean consumer electronic factory worker had more than doubled since 1992. In fact, Korean wages had risen so dramatically that even the manufacturing wages of workers advanced industrialized countries manufacturing wages were thirty percent lower than the wages of their Korean counterparts. For example, in 1996 the average British consumer electronic factory worker made \$6.94 per hour, while the same Korean worker earned \$9.99 per hour. 136

¹³⁰ Clifford, supra note 97, at 65.

The average Korean workweek was 54.7 hours in 1986. Lee & Lindaur, supra note 70. By 1991, the average workweek in Korea had decreased to 45.2 hours. Wilkinson, supra note 72, at 343.

South Korean Workers Go on Strike for More Rights, supra note 23.

Wilkinson, supra note 72, at 342.

¹³⁴ Steven V. Brull & Catherine Keumhyun Lee, Why Seoul is Seething: Koreans Want the Mismanaged Chaebol to Share the Economic Pain, Bus. WK, Jan. 27, 1997, available in WESTLAW, Busweek Database.

135 Id.
136 Id.

C. The Impact of Pro-Labor Laws on Korean Businesses

The new laws, supported by Korean workers, became a major obstacle to the global market competitiveness of Korean firms. The reduced workweek and progressive paid leave policies meant that the level of productivity per Korean worker decreased. Moreover, the higher wage levels and the restrictions on employee dismissals substantially reduced business profits. To counteract the costs of employment, Korean businesses attempted to raise product prices. These attempts proved unsuccessful and many businesses began to face bankruptcy.

1. Lower Productivity

Korean businesses experienced decreased profits because of marginal labor productivity rates. Productivity is the amount of product created by one unit of a given factor of production over a specific period of time. Labor cost is a factor of production. Under the new laws, Korean laborers have a shorter workweek and are entitled to monthly and annual paid vacations. Consequently, the total amount of hours worked by Korean laborers is reduced, and the productivity rate per worker is decreased. In addition, economic studies found that the increasing rate of unionization in Korea negatively affected to labor productivity.

Furthermore, because Korea had a nearly unlimited supply of cheap labor, many Korean businesses failed to upgrade worker skills and invest in labor-saving technology that would increase labor productivity per worker. Instead, to bolster labor productivity, Korean business often required laborers to simply work faster. For example, after the enactment of the new laws, Kia Motors required its car painters to complete paint jobs in just two minutes and ten seconds, whereas the painters were previously

¹³⁷ C.W. Lim, South Korean Business Groups Rush for Massive Layoffs, Agence France-Presse, Sept. 9, 1996, available in WESTLAW, Allnewsplus Database. Generally, South Korea's major business groups are laying off staff to reduce production costs, and blaming high wages for eroding their competitive edge abroad. *Id. See also* Erik Miller, Structural Impediments to South Korea's Economic Growth (unpublished manuscript, on file with author).

¹³⁸ Although South Korea's overall labor productivity increased during the 1980's and 1990's, in terms of value added per person, South Korea was still far behind other advanced countries. Korea Enjoys the Highest Labor Productivity Growth Since 1980, Korea Econ. Daily, Sept. 10, 1999, available in WESTLAW, Allnewsplus Database. In 1996, Korea reported \$28,166 in value added per person compared with \$49,150 in value added per person registered in the United States. Id.

¹³⁹ Michael Byungnam Lee & Yinsog Rhee, Bonuses, Unions, and Labor Productivity in South Korea XVII, 2 JOURNAL OF LABOR RESEARCH 219, 219-38 (1996).

¹⁴⁰ Chang Do Young, a painter at Kia Motors, stated "workers have been sacrificed while business has neglected to invest in new technology." Watanabe, *supra* note 10, at A1.

given four minutes and thirty seconds. 141 In the past, Korea never had an exceptionally high rate of labor productivity but was always able to compete in the international market because of low labor wages. 142 This became difficult as labor wages rose under the new labor laws.

2. Decreased Profits

Despite increased sales, the dramatic wage growth rate contributed to decreased profits for Korean businesses. In 1989, earnings for South Korean companies fell by 0.2% from the previous year even though Korean companies experienced a sharp rise of 13% in sales. 143 Korean business earnings were down because of high wages and the strong value of the Korean won. 144 South Korea's major business groups blamed high wages for eroding their competitive edge abroad. Korean carmakers reported increased sales revenues but a decrease in company profits. Hyundai's sales increased 21% but profits decreased 20%. ¹⁴⁶ Similarly, Kia increased sales by 7.9% but profits decreased 69%. ¹⁴⁷ Daewoo also experienced sales increases and company profit losses. ¹⁴⁸ All three companies cited labor disputes as the major factor for the decrease in company profits. 149 Consequently, by 1998, Hyundai Motor Company announced that it would be forced to cut its 300,000-person work force by 20%. 150 In the 1990's, Korean firms began losing profits, placing the blame on workers, labor unions and the new labor laws themselves.

¹⁴² Id. The Korean Confederation of Trade Unions admits that Korean business competitiveness increased 11% annually during the same period that Korean wages decreased by 8.3%. Hannah Miller, Asian Pacific Coalition brings S. Korean strike into UCLA area (visited Jan. 5, 2000) . See also Adam Szirmai & Dirk Pilat, Comparisons of Purchasing Power, Real Output, and Labour Productivity in Manufacturing in Japan, South Korea, and the U.S.A. 1975-85, 36 REVIEW OF INCOME AND WEALTH (1990).

¹⁴³ South Korean Concerns' Profits, WALL St. J., Oct. 15, 1990, available in WESTLAW, Allnewsplus Database.

144 Id.

¹⁴⁵ Lim, *supra* note 137.

¹⁴⁶ Profits for Car Makers in South Korea Fell in 1991, on Labor Woes, WALL ST. J., Mar.2, 1992, available in 1992 WL-WSJ 663517.

¹⁴⁸ Id. Daewoo sales increased 3.9% but the company also reported a 100 billion won decrease in profits. *Id.* Korean businesses and the media nicknamed this phenomenon "profitless prosperity." *Id.*

¹⁵⁰ Hyundai Plans Massive Layoffs, WASH. TIMES, Apr. 10, 1998, at B9. Unions immediately responded to Hyundai's lay-off announcement by vowing not to accept the management's decision and threatening to call a general labor strike. Hyundai Motor to Lay Off More than 4,800 Workers, ASIA PULSE, June 30, 1998, available in 1998 WL 12620261.

3. Korean Business Reacts

As a result of the new labor laws, Korean business found it difficult to pay off debts and remain competitive in the global market. Korean manufacturing wages increased by 100% between 1986 and 1990, while productivity increased by less than 20%. Consequently, the unit cost of labor, meaning the cost of labor for the production of one unit of output, increased by 67%. 152 Given this reality, many Korean companies were faced with the possibility of going bankrupt.

The Daewoo Group is one such example. The Daewoo group was founded in 1967 by Kim Woo-Choong and grew to be Korea's fourth largest chaebol, 153 manufacturing cars, ships, and consumer electronics. 154 In 1989 the shipbuilding group had accumulated a \$1.95 billion debt that threatened to bankrupt the entire chaebol. 155 At the same time, unions representing the shipyard's 12,000 employees went on strike demanding a 55% pay increase. 156 In the eleventh hour, the Korean government bailed out the chaebol, fearing that Daewoo's collapse would undermine the entire Korean economy. 157 In response, Daewoo founder Kim Woo Choong immediately published the best selling book, It's a Big World and There's a Lot To Be Done, demanding that Korean workers put aside self-interests in favor of national greatness. 158

In an effort to avoid Daewoo's situation, many Korean companies attempted to raise the prices of their products. Higher wages coupled with low productivity forced Korean businesses to adopt a strategy of higher pricing. However, this strategy was unsuccessful because the demand for Korean goods decreased as the prices rose. 159 In fact, one economic study

Wilkinson, supra note 72, at 344. Furthermore, Korea's labor costs continued to spiral out of control. Brull & Lee, supra note 134. Through 1990's, the average real wages rose an additional 8.2% per year, far outstripping the average productivity gains of only 6.5% per year. *Id.*

¹⁵³ Chaebols are conglomerates of many companies clustered around one holding company and are usually controlled by one family. For a detailed explanation of Korean chaebols see Yes But What Exactly Is a Chaebol?, (visited Mar. 28, 2000) http://www.megastories.com/seasia/skorea/chaebol/chaewhat. htm>.

154 Peter Koenig, Birth Pangs of a Securities Giant, EUROMONEY, Feb. 1, 1990, at 24.

¹⁵⁶ Id.

¹⁵⁷ *Id*.

¹⁵⁸ Id. In response to Kim Woo Choong's book, Park Noe-Hae, a Korean fugitive, published Our Love and Our Wrath, demanding that Korea's leaders ensure the country's greatness through a fair division

¹⁵⁹ For example, in the competitive athletic shoe industry, the price of athletic shoes increased 10 to 20% in 1988 because of a decrease in production of shoes in South Korea. These higher prices lead to sticker shock, causing consumers around the world to buy even fewer pairs of athletic shoes. Melissa

concluded that the Korean wage hike caused Korean products to be more expensive than complementary U.S. and Japanese products. The declining demand for Korean products on the global market caused the level of Korean exports to fall. 161

The circumstances surrounding the covert passage of the new labor laws in 1997 illustrated the growing tension between Korean workers and businesses over Korean work standards. Korean workers, who once had some of the longest workweeks and most dangerous work environments in the world, are enjoying the benefits of their new democratic government's progressive labor laws. Korean workers now enjoy the same rights and protections that have long existed in other industrialized countries. ¹⁶² Conversely, Korean businesses who helped transform the country from an agrarian society to an industrialized economy are finding it difficult to avoid bankruptcy under the regulated Korean workweek.

A compromise between Korean businesses and workers needs to be reached in order for Korea to increase its global competitiveness while ensuring that the current labor standards remain intact. The problem facing Korea is how to make an economy competitive in the wake of the recent enactment of progressive labor laws and worker rights when the principal success of that economy has been rooted in cheap labor. Indeed, both proworker and pro-business interests in the regulation of the Korean workweek are legitimate. As such, any solution must reach the goal of making Korean businesses competitive in the global market without sacrificing the new rights and freedoms given to Korean workers.

IV. A SOLUTION TO KOREA'S LABOR PROBLEM

It is unlikely that the Korean government will repeal the newly enacted progressive labor laws. Although repeal would allow Korean businesses to increase productivity levels through the regulation of their own workweeks, the repeal of the new labor laws would likely elicit retaliatory reaction from Korean laborers, foreign countries, and international organizations. A more feasible approach to solving Korea's labor problems lies in domestic technological innovation. Currently, Korean businesses

Turner, Sneaker Makers Run To Keep Up Nike, Reebok Locked In Battle for Market's \$3.1 Billion in Sales, ATLANTA J. & CONST., Feb. 20, 1988 at C01.

Joono Cho et al., The Effects of the Korean Wage Hikes on Korean Trade Structure With the U.S. and Japan, 61 SOUTHERN ECONOMIC JOURNAL 458, 506 (1994).
 Id.

¹⁶² See generally McCandless et al., supra note 117 (description of the employment laws in other countries, including the European Economic Community, Japan and China).

must import most of the technology they use in the goods that they export. Importing technology is expensive and requires that Korean businesses pay high royalty fees and enter into expensive direct licensing agreements. However, if Korea could develop technology through domestic technological innovation, Korean businesses could still be profitable even with the lower worker productivity levels that have resulted from the regulation of the Korean workweek.

A. Rescinding the New Labor Laws: An Unlikely Alternative

In light of Korea's democratization and the consequent reform of Korea's labor laws, repeal is not a feasible alternative for two reasons. First, Korean workers are so militant that they would not allow the government to repeal the current labor laws. For example, Korean laborers engaged in massive protests and crippling labor strikes when the Korean government tried to scale back the scope of the progressive labor laws in 1997. A complete repeal of the labor laws would likely elicit an even greater retaliatory reaction from Korean workers and labor unions. Although labor unions understand that chaebol bankruptcy means there will be fewer jobs for Korean workers, they still continue to hold labor strikes to improve their labor conditions. 165

Secondly, international organizations and other countries would likely pressure Korea to retain the current progressive labor laws. On October 11, 1996 Korea joined the Organization of Economic Cooperation and

¹⁶³ See supra notes 7-16 and accompanying text.

¹⁶⁴ Korea's labor movement has often been characterized as militant. In recent years, Korean workers have been willing to engage in massive, week-long strikes in order to preserve the country's new labor laws. For example, Korean unions still continued to threaten employers and call for additional labor strikes months after the 1997 pre-dawn labor union laws were rescinded by the Korean government. Schuman & Kim. supra note 16.

Kim, supra note 16.

165 Kim Ho Jin, chairman of the Tripartite Commission, which handles Korea's labor disputes, analogizes: "When a ship is sinking, there are no fights on board. The union understands that as the Daewoo ship is sinking, unless management and labor cooperate, everyone will be wiped out." Korea's Labor Unions To Be Cooperative in Daewoo Revamp, ASIAN WALL ST. J., Aug. 23, 1999, at 4. Nevertheless, Korean unions continue to hold strikes, demanding that their workweek be shortened further. South Korean Workers go on Strike for more Rights, supra note 23.

Labor Organization, the United Nation's Committee on Economic, Social and Cultural Rights, and Human Rights Watch/Asia, in addition to the Organization of Economic Cooperation and Development. Richard Dicker, South Korea Labor Rights Violations under Democratic Rule, 14 UCLA PAC. BASIN L.J. 196, 197 (1996). The World Trade Organization supports the International Labor Organization's work in promoting certain core labor standards. Steve Charnovitz, Trade, Employment and Labour Standards: The OECD Study and Recent Developments in the Trade and Labor Standards Debate, 11 TEMP. INT'L & COMP. L.J. 131, 155 (1997).

Development ("OECD") Council. 167 The OECD Council is comprised of countries committed to economic development and respect for human rights. 168 In the past, the OECD was a major critic of Korea's labor laws and only allowed Korea to join the OECD Council after the democratic government revised Korea's previous labor laws. 169 The OECD also expressed widespread concern about the revisions that were passed during Korea's secret pre-dawn assembly on December 26, 1997. 170 If Korea were to return to its previous abusive labor laws, organizations such as the OECD would press the Korean government to revise the labor laws until international labor standards and basic human rights were restored.

B. Domestic Technological Innovation

Since repealing the new labor laws is an unlikely alternative, South Korea should increase domestic technological innovation. By producing technology domestically through direct foreign investment, Korean businesses can earn higher profits without compromising the new labor rights given to Korean workers.¹⁷¹

¹⁶⁷ Dicker, supra note 166, at 241. See also S. Korea Labor Laws (visited Jan. 5, 2000) http://kimsoft.com/korea/sk-lab2.htm

¹⁶⁸ Convention of the Organization for Economic Co-operation and Development, Dec. 14, 1960, preamble, 12 U.S.T. 1728. Additional OECD countries include: Australia, Japan, Germany, Mexico, New Zealand, Turkey, and the United States. OECD, About OECD, (visited June 24, 2000) http://www.oecd.org/about/>.

OECD Official Calls for Labor Reforms by This Year, KOREA HERALD, Oct. 17, 1996, available in 1996 WL 13443821.

¹⁷⁰ Korean Labour Law Tops OECD Council Agenda, AGENCE FRANCE-PRESSE, Jan. 23, 1997, available in 1997 WL 2046060. Moreover, international trade unions such as the International Confederation of Free Trade Unions expressed support for striking Korean workers and denounced the predawn labor laws that led to the labor strikes. International Trade Union Group Denounces South Korea's New Labor Laws, West Legal News, Jan. 9, 1997, available in 1997 WLN 14245.

Technology development through foreign investment would also help Korea recover from its recent economic crisis. Korea's economic crisis was brought about by reckless chaebol investment decisions and a series of conglomerate bankruptcies. [Reviewing President Kim's Two Years] Building a New Economy, Korea Times, Feb. 24, 2000, available in 2000 WL 8239531. However, domestic technological innovation through foreign investment appears to be one way Korea can overcome its recent economic crisis. Robert J. Fouser, Cultural Dimensions; Whatever Happened to Productivity Issues, Korean Herald, July 28, 1998, available in 1998 WL 12274295. Currently, the Korean government is trying to break down the barriers to foreigners who wish to work, invest, and live in Korea. Restrictions regarding foreign land ownership and foreign investment have been lifted. A 10,000 square meter residential complex was recently built in downtown Seoul, exclusively for foreign investors, a new convention center is in the process of being built, and many taxi drivers are being trained to speak basic English and their cabs will be marked with special stickers so that foreign businesspeople can easily recognize them. Kim Chong-Tae, Doing Business in Seoul is Getting Easter, Bus. Korea, Feb. 1, 1999, at

1. The Importance of Technology Transfer

Wealthy countries tend to have advanced technology while less-developed countries must import their technology. The pre-existing wealth of developed countries lays the groundwork for major technological development, which in turn makes future technological innovation possible. A lack of technological innovation is a barrier to the global market competitiveness of less-developed countries. Less-developed countries have fewer resources to devote to research and development, education, and infrastructure. Because less developed countries cannot match the technological developments of most developed countries, they are excluded from competing in profitable markets. Consequently, less-developed countries must import technology ("technology transfer") in order to compete in the global market. Korea is one such example.

Technology transfer allows less-developed countries to have access to technology that could not be produced through domestic research and development. Korea is one example of a country that has made use of technology transfer in its modern development. Generally, technology transfer occurs in the late stages of a product cycle when it becomes profitable for firms in developed countries to produce goods through

Three factors are essential to the social and economic success of a country: education, technological innovation, and access to information. Samuel Zaitlin, *The Laptop and the Pine Tree in Maine*, BANGOR DAILY NEWS, Mar. 24, 2000, available in 2000 WL 4260842. Factors that lead to technology development include efficient infrastructure and a supply of high-quality human capital. This requires that countries invest heavily in savings, advanced education, research and development, and proper physical infrastructure. David C. O'Conner, *Technology and Industrial Development in the Asian NIEs: Past Performance and Future Prospects*, in THE EMERGING TECHNOLOGICAL TRAJECTORY OF THE PACIFIC RIM 55, 57-59 (Denis Fred Simon ed., 1995).

¹⁷³ This is true for developing countries such as South Africa. Consequently, Professor Peter van Eldik of Technikon Pretoria called for the South African government to support higher education institutions in their role of technological innovation. He also stated that higher education institutions needed to revise their strategies in order to exploit the opportunities and challenges they faced in technological innovation. Technikons Still Have Important Role in Education, Seminar Hears, SOUTH AFRICAN PRESS ASSOCIATION, Oct. 28, 1999, available in 1999 WL 28032374.

¹⁷⁴ For example, Korea's school enrollment rates were very low during its industrialization. In 1965 Korea's secondary enrollment rate was 35%, while the tertiary rate was 6%. O'Connor, *supra* note 172 at 59.

¹⁷⁵ Less developed countries are forced in the low end of the market, with small profits from selling less sophisticated goods. See infra notes 205-210 and accompanying text.

¹⁷⁶ Fumio Kodama, Emerging Trajectory of the Pacific Rim: Concepts, Evidences, and New Schemes, in THE EMERGING TECHNOLOGICAL TRAJECTORY OF THE PACIFIC RIM, supra note 172, at 28-42.

¹⁷⁷ BELLO & ROSENFELD, supra note 41, at 17-21.

¹⁷⁸ Kodama, supra note 176, at 30.

¹⁷⁹ VOGEL, supra note 81, at 58-60.

subsidiaries in cheaper labor markets. 180 Through technology transfer. Korea is able to compete with the most highly developed countries in the manufacture and sale of profitable high-technology goods such as cars and consumer electronics. 181

Korea's Failure to Develop New Technology 2

During the 1970s and 1980s, when countries such as the United States, Japan, and West Germany were developing new technology, 182 Korea failed to do so for three reasons. First, the Korean government did not allocate sufficient resources for research and development of new Second, Korean businesses often channeled profits into technology. speculative cash-generating investments instead of reinvesting profits into new product innovation. Lastly, Korea lacked the necessary infrastructure of technical personnel to develop cutting-edge technology. 183

The Korean government did not devote the same resources to domestic technology innovation as other, more developed, nations did. For example, in 1989 the Korean government spent approximately \$3.89 billion dollars on technological research and development. This was roughly the same amount that a large U.S. corporation such as IBM or General Motors spent in that same year. 185 Moreover, the proportion of Korea's investment in research and development by the Korean government and by the public sector has decreased from 70.3% in 1970 to 17.1% in 1989. In fact. S.I. Chun, the Washington representative of the Electronics Industry Association of Korea, readily admits, "[w]e are still far behind in both high technology and capital."187 In other more successful export-oriented Asian countries, a

¹⁸⁰ Bello & Rosenfeld, supra note 41, at 150. However, it is most profitable for a firm to enter a fast-growing technology driven market early as it will determine the firm's export performance as well as market share. Id.

¹⁸¹ VOGEL, supra note 81, at 58-60.

¹⁸² For example, the development of open-ended spinning and shutteless weaving systems greatly reduced the labor intensity of textile production and boosted the productivity of United States, Japanese, and European textile manufacturing companies, countering the low-wage advantage of manufacturers in Korea. Bello & Rosenfeld, supra note 41, at 124. The development of an innovative computerized-cloth cutting system and new rotor sewing spindles, which offered a 40% saving in manpower over traditional ring spindles, allowed textile firms such as Germany's Hugo Boss to successfully offset labor costs through an efficient, technologically automated garment production process. Id. at 124-25.

¹⁸³ For an in-depth discussion on South Korea's failure to develop technology, see id. at 129-64.

¹⁸⁴ Seongjae Yu, Korea's High-Technology Trust in THE EMERGING TECHNOLOGICAL TRAJECTORY OF THE PACIFIC RIM, supra note 176, at 81, 91.

¹⁸⁵ *Id.* 186 *Id.*

¹⁸⁷ Michael Schrage, S. Koreans Push To Gain High-Technology Foothold, WASH. POST, Feb. 16, 1986, available in 1986 WL 4764960.

comparable decrease in the governments' investment in research and development did not occur. This suggests that the burden of research and development was shifted to the private sector too early in Korea. 189

Similarly, huge chaebols in the Korean private sector failed to invest in research and development, to modernize manufacturing plants, to develop new equipment, and to produce better technology. Instead of funneling money into research and development, chaebols engaged in high-profit, speculative investments such as investments in land, luxury hotels, and golf courses. With property prices skyrocketing several hundred percent in the late 1980s, chaebols made substantial profits from such investments. Most chaebols would re-invest these profits back into fast, cash-generating, speculative investments, rather than into development of new product technology. In response, one angry trade journalist stated, "while complaining about nonavailability of money for their product investment, chaebols spend huge sums on land and securities which are not urgently needed." Recently, the Korean government enacted a three-year plan to force Korea's five largest chaebols to concentrate on core businesses and dispose of other unprofitable ones. Despite this plan, Korean firms continue to make speculative investments.

Moreover, even if the Korean government and chaebols had been willing to spend more money on developing self-sustaining technology, domestic technological innovation would still have been limited by Korea's lack of technical personnel. In 1990, while the United States had 160

¹⁸⁸ Yu, *supra* note 184, at 91. The Japanese government's investments in domestic research and development only decreased by 8.1% between 1970 and 1989. *Id.*

Id.
 BELLO & ROSENFELD, supra note 41, at 115. It is estimated chaebols invested \$16.5 billion in land, hotels and resorts instead of research and development. Id.

Maggie Ford, Seoul in a Twist Over Top 30, FIN. TIMES, June 15, 1989, at I.

BELLO & ROSENFELD, supra note 41, at 71.

¹⁹³ The Chaebol Draw Fire, Bus. Korea, June 1989, at 7.

In 1998, South Korea's Financial Supervisory Commission unveiled a three-stage plan to force Korean chaebols to dispose of their unprofitable businesses in different industrial sectors, including semiconductors, petrochemicals, oil refinery and rolling stock. The goal of the plan is to liquidate chaebol's non-core businesses. This would coerce chaebols to dissolve their debt payment guarantees to their affiliates and cut their overall debt ratios. Many chaebols such as Hyundai and the Federation of Korean Industries, a chaebol lobbying group, were dissatisfied with the plan and worried that it would threaten chaebol existence. Top Five Chaebol to Be Disintegrated, KOREA TIMES (visited Mar. 28, 2000) http://www.korealink.co.kr/14/3/9810/t4351204.htm

For example, the Hyundai Group recently announced plans to invest approximately \$1 billion to build a resort in North Korea. The Hyundai Group sought approval of North Korea's reclusive Communist leaders to build the new resort, which will include a 45-hole golf course, ski slope, a 1,000 room seaside hotel, domed theater, glass atrium and deepwater docks. Calvin Sims, North Korea As The Next Tourist Spot, N.Y. TIMES, Mar. 7, 2000, at C1.

BELLO & ROSENFELD, supra note 41, at 115-16.

engineers per 10,000 workers and Japan had 240 engineers per 10,000 workers, Korea only had thirty-four engineers per 10,000 workers. Similarly, Intel Korea Manager Y.K. Sohn stated that in the late 1980's there were only approximately 200 personal-computer architecture engineers in all of Korea. There was not one scientist employed in the entire auto-parts industry, and less than 9% of the work force in the auto-parts industry consisted of skilled workers. Furthermore, Korea is facing a significant "brain drain," or loss of technical personnel, to the United States. Of the 7200 Korean scientists and engineers estimated to have studied in the United States between 1968 and 1986, more than 6000 now permanently reside in the U.S. Consequently, Korea had neither the investment nor human capital necessary to sustain domestic technological innovation.

3. Korea's Dependence on Japan for Technology

Because Korea did not develop new technology, it has been forced to import expensive foreign technology from other industrialized countries. Much of the technology for Korean goods is imported from Japan. Although Japanese companies are reluctant to share their technology with other nations, Korea has been persistent and successful in importing this technology from Japan at extremely high prices.

The Korean automobile, consumer electronic, and computer industries are all dependent upon Japanese technology. Japanese high technology parts and components account for 20 to 30% of the value of Korean automobiles, 35 to 45% of the value of Korean machine tools, 60% of the value of Korean computers, 65% of the value of Korean printers, and 85% of the value of Korean televisions. Furthermore, 20% to 40% of a Korean-made VCR

¹⁹⁷ JOHN NAISBITT & PATRICIA ABURDENE, MEGATRENDS 2000, 200 (1990).

¹⁹⁸ Intel Korea: Eyeing Advanced PC Environments, ELECTRONICS KOREA, Jan. 1989, at 28.

¹⁹⁹ BELLO & ROSENFELD, supra note 41, at 116 (citing Lee Kark-Burn, International Division of Labor and Small-Scale Industry: The Case of the Korean Automobile Industry, Dependency Issues IN KOREAN DEVELOPMENT 429 (Kim Kyong-Dong ed., 1987)).

²⁰⁰ Schrage, supra note 187.

²⁰¹ Stephen Kreider Yoder, Reverse "Brain-Drain" Benefits Asia But Robs U.S. of Scarce Talent, ASIAN WALL ST. J. WKLY., April 14, 1989, at 25. The brain drain continues to be a problem for Korea. For example, 20 high-level semiconductor researchers recently left Korea for foreign firms and an additional 40 to 50 semiconductor researchers are expected to leave in the next few months. Moreover, as many as 400 DRAM technologists from Korea's three big semiconductor manufacturers are reported to have been approached by foreign recruiters from the United States, Taiwanese, and Malaysian companies. Ahn Mi-Young, The Return of the Chaebol, ELECTRONIC BUSINESS ASIA (June 1999) http://www.eb-asia.com/registrd/issues/9906/0699c-story.htm.

²⁰² BELLO & ROSENFELD, supra note 41 at 114.

consists of Japanese-made parts,²⁰³ while the electronic industry as a whole depends on Japan for over 70% of its component parts.²⁰⁴ These statistics indicate that Korea is dependent upon importing Japanese technology to manufacture profitable high-tech goods.

Japan, however, is reluctant to share technology. Japanese companies are cautious about sharing technology with other countries because they are afraid that technology transfer might lead to the return of products using the same technology into their own markets. This is called the "boomerang" theory. Consequently, Japan withholds key critical components and parts from its Korean counterparts. This is especially true with cutting-edge technology. Japanese companies frequently restrict technology transfer during the initial, most profitable "hot years" of a new product. Once the novelty of the product wears off and the profit becomes marginal, Japanese companies willingly sell their technology to Korean companies. As a result, Korea produces many goods at the low end of the market, with small profits generated from less-sophisticated products.

The price of importing Japanese technology is also increasing dramatically. Usually, Koreans simply license Japanese technology or purchase the rights to use Japanese patents.²¹¹ However, the costs of importing Japanese technology through licensed technology agreements and royalty payments doubled from \$58 million in 1977 to \$115 million in 1982.²¹² By 1987, the amount was up to \$574 million, and in 1989, Korean firms paid about \$1.2 billion in royalty fees and fees for licensing agreements.²¹³ This means that the Japanese collect 10% of all Korean VCR

²⁰³ Stefan Wagstyl, South Korean Finance and Industry: Turmoil of Transition, Fin. TIMES, November 27, 1989, at III.

²⁰⁴ BELLO & ROSENFELD, *supra* note 41, at 149 (citing Electronics Industry Associations of Korea (EIAK), Mar.13, 1989, at 19).

²⁰⁵ VOGEL, *supra* note 81, at 58-60.

²⁰⁶ Id.

²⁰⁷ Imports Caught Between Competing Interests, ELECTRONICS KOREA, June 1989, at 22. Lee In-Duck, manager of Daewoo Electronics Audio Marketing Department, states that "Japanese makers are reluctant to supply key parts and components to their Korean counterparts." Id. See also Michael Schrage, supra note 187. Moreover, instead of selling cutting edge technology to Korea, many Japanese engineers and technicians fly into Seoul to "moonlight" for Korean electronics companies on the weekends. Id.

²⁰⁸ Bello & Rosenfeld, supra note 41, at 150.

²⁰⁹ Id.

²¹⁰ Id. For example, Korea dominates the less-sophisticated black-and-white television market worldwide. Schrage, supra note 187.

²¹¹ Bello & Rosenfeld, supra note 41, at 113.

Id. at 114-55 (citing Park Tai-Won, Higher Education and Technological Innovation in Economic Development of Korea, Pacific Focus (Inha University, Intone, Korea) Fall 1986, at 11).
 Id. at 115.

sales²¹⁴ and from 35 to 45% of the gross profit from Korean computer equipment sales.²¹⁵ The high prices that Japanese firms charge to license their technology eliminate most of the limited profits that Korea is able to realize from selling products at the low end of the market.²¹⁶

Because of the high prices Korean firms pay for foreign technology and the marginal profits generated at the low end of the market, Korean firms come to rely on cheap labor to keep the price of their goods competitive. Cheap wages and long working hours were critical to Korea's development because in East Asia, export competitiveness was highly dependent upon low-cost, disciplined labor.217 Cheap labor and manufacturing efficiency offset the high prices Korean firms paid for Japanese technology and the low profits Korean firms earned from selling less-sophisticated products. The Korean chaebols were successful largely because they integrated borrowed technology with large-scale manufacturing processes made use of cheap labor. 218 Cheap labor and manufacturing efficiency were responsible for the success of Korean export industries in the 1960s. 1970s, and 1980s.²¹⁹ Consequently, without cheap labor, Korean chaebol profitability is limited in the highly competitive, technology driven global market place.

4. HAN Project

Because the Korean government has limited resources and has reduced its investments in research and development, Korea has been forced to develop domestic technology in only a few strategic industries.²²⁰ develop these technologies, the Korean government implemented and oversaw the Highly Advanced National ("HAN") Project. 221 The HAN

²¹⁴ Electronics Spells Profits and Problems, ELECTRONICS KOREA, Nov. 1989, at 29.

²¹⁵ ASIAWEEK, Aug. 11, 1989, at 56.

²¹⁶ BELLO & ROSENFELD, supra note 41, at 115.

²¹⁷ Devo, *supra* note 41, at 183.

²¹⁸ Bello & Rosenfeld, supra note 41, at 117.

²¹⁹ Id. at 164.

²²⁰ Yu, *supra* note 184, at 92.

The HAN project is a ten-year plan implemented by the Korean Ministry of Science and Technology in 1992. Korean Highly Advanced National (HAN) Project, ASIAN TECHNOLOGY INFORMATION PROGRAM (Aug. 6, 1994) http://www.cs.arizona.edu/japan/atip/public/atip.reports.94/ koreahan.94a.html>. The total estimated budget of the HAN project is 4.9 trillion won (about \$6.8 billion U.S.) Yu, supra note 184, at 94. Korean government funding supports approximately 50% the HAN Project's total budget and the remaining 50% is funded by the private sector. Id. The HAN Project has also been commonly referred to as the "G-7 Project" and the "Science and Technology Development Plan to Join the Rank of the 7 Most Advanced Countries." Id. at 93. Coincidentally, the word HAN is also used to refer to "the people of Korea." Yu, supra note 184, at 115 n.5.

project was designed to develop technologies in select fields that have the greatest potential to make Korea competitive with advanced countries in the international market.²²² The HAN Project selected two types of development projects: Product-Oriented Technology Development Projects and Base Technology Development Projects.²²³

Product Oriented Technology Development Projects concern seven specific high-technology products that have a major share of the world market. These projects include technology development in the electronics, telecommunication, computer, automobile, and chemical industries. For example, in the automobile industry the Product Oriented Technology Development Projects encourages research and development in technologies related to crash safety, exhaust gas control, new engine designs for alternatives to fuel, and improved chassis design.

In contrast, Base Technology Development Projects promote generic, base technologies that are aimed at increasing the quality of life for humankind. Unlike Product Oriented Technology Development Projects, the development of specific projects is not required. However, research and development is limited to seven areas: machinery, bioengineering, the environment, energy, human engineering, materials, and atomic power.

C. A Suggestion For Future Technology Development in Korea

The HAN Project is an attempt by the Korean government to develop technology domestically. However, the HAN project is confined to specific technologies in certain areas and does not attempt to upgrade technology in every industry. The Korean government should enact additional technology development programs to promote further domestic technological innovation and reduce Korea's dependency on technology from Japan.

In order for the Korean government to solve the country's labor problems without repealing existing progressive labor laws, it must take steps to develop domestic technology in industries other than those industries supported by the HAN project. Additional programs should be

²²² Korean Highly Advanced National (HAN) Project, supra note 221.

²²³ Id. For an additional discussion on the HAN project see Yu, supra note 184, at 93.

²²⁴ Korean Highly Advanced National (HAN) Project, supra note 221.

²²⁵ Id

²²⁶ Id.

²²⁷ Id.

²²⁸ Id. See also Yu, supra note 184, at 94.

²²⁹ Korean Highly Advanced National ("HAN") Project, supra note 221.

implemented because Korean chaebols are comprised of many companies in a variety of different industries. One Korean government report indicates that the top thirty Korean chaebols have an average of twenty-one companies and are involved in twenty major business lines. The failure of one company in a specific industry affects the prosperity of the entire chaebol. By implementing additional technology development programs, Korean chaebols can increase profits even with the reduced worker productivity that has resulted from the regulated Korean workweek.

One possible approach to developing more domestic technological innovation in Korea is through partnerships with multinational corporations ("MNCs") and foreign research institutions. Singapore has been successful with a similar strategy for developing domestic technological innovation. Singapore also had a need to develop technology domestically. Singapore has developed partnerships with MNCs and has encouraged MNCs and research institutions to use Singapore as their regional technology basis center in the Asia-Pacific region. For example, Singapore's Economic Development Board entered into a joint venture between Texas Instruments, Hewlett Packard, and Canon to set up a new \$330 million advanced semiconductor factory in Singapore to design high-tech sixteen megabyte DRAM computer chips. In addition, Sony Precision Engineering Corporation now uses Singapore as its technology basis center to serve other corporations in the Pacific Rim region. These projects are allowing Singapore to develop domestic technology.

Korea could focus on technology partnerships in which MNCs and foreign research institutions are encouraged to set-up research and

²³⁰ Laxmi Nakarmi, A Flying Leap Toward the 21st Century? Pressure from Competitors and Seoul may Transform the Chaebol, BUS. WK., Mar. 20, 1995, available in 1995 WL 2228689. For example, the Samsung chaebol manufactures everything from t-shirts, to ships, to semiconductors. Id.

This is illustrated by the Daewoo Group. The Daewoo chaebol manufactured ships, cars, and consumer electronics. The cumulative effects of high debt and labor disputes in the shipbuilding sector threatened to bankrupt the entire chaebol. *See supra* notes 153-56 and accompanying text.

²³² See Poh-Kam Wong, Singapore's Technology Strategy in THE EMERGING TECHNOLOGICAL TRAJECTORY OF THE PACIFIC RIM, Supra note 176, at 103.

²³³ *Id*. at 121.

²³⁴ Id.; see also Paul Sherer, Texas Instruments Decides to Abort Thailand Ventures, WALL ST. J., May 9, 1997, at A12. Moreover, MNCs continue to invest in other Asian countries. Texas Instruments also announced that it would build a \$1.2 billion digital signal processing plant in Taiwan. Macabe Keliher, TI to Invest U.S.\$1b in Taiwan, Make it the Asian Base, BUS. TIMES, May 17, 1999, available in 1999 WL 18750093.

Wong, supra note 232, at 103. Sony Precision Engineering Corporation announced that it will merge six group companies into its Singapore headquarter base. Among the group companies being merged are: Sony International, Sony Logistics, and Sony Precision Engineering Center. Company Will Merge 6 Group Companies in Singapore on 1-10-99, EXTEL Co. News, Sept. 17, 1999, available in 1999 WL 27450685.

development institutions in Korea. To make South Korea more attractive to foreign MNCs, the Korean government could enter into the joint ventures with the MNCs in order to share risk and to gain access to cutting edge technology. This may encourage MNCs to initiate joint research projects with other local Korean firms and government institutions. MNCs and research institutions could also use South Korea as their regional business technology center in the ASEAN region.

Similarly, Korea should enter into more joint ventures with MNCs and research and development institutions. Such joint ventures agreements would allow Korea to develop domestic technology in different industries aside from those covered by the HAN project. Moreover, joint ventures agreements would thwart Korea's dependency on importing Japanese technology, consequently making Korean chaebols more profitable.

V. CONCLUSION

South Korea must make difficult decisions concerning the country's labor problem. For decades, the Korean government and chaebols have abused the workforce in order to promote export-oriented industrialization. However, once South Korea became a democracy, the Korean workforce unionized and a powerful labor movement developed. As a consequence, significant improvements were made to labor conditions. The democratic government's new progressive labor laws give workers the same, and in some instances better, rights and privileges than workers in other industrialized countries. However, these labor rights did not come without a price. Korean businesses, which relied on cheap labor and high worker productivity to remain competitive in exporting goods, now face substantially lower profits and in some cases even bankruptcy. As a result, the Korean government is caught in the middle of an intense struggle between laborers and businesses over the regulation of the workweek.

It is highly unlikely that the Korean government will repeal the new labor laws in order to solve the country's labor problems. The Korean workforce is too militant and would probably engage in massive protest strikes. Moreover, Korea is under considerable pressure from other industrialized countries and international organizations to keep its progressive labor laws.

Korea should focus on increasing domestic technological innovation in order to balance the competing interests between Korean businesses and workers. Domestic technological innovation would increase business profitability under the regulated workweek because it would limit the dependence of Korean business on technology importation. The HAN project is a strong attempt by the government to reach this goal. However, more should be done to increase domestic technological innovation in all of Korea's key industries. To do this, Korea should also adopt technology development programs similar to those adopted by Singapore. By entering into partnerships with MNCs and other research institutions, the government can increase domestic technological development. Moreover, such programs would encourage MNCs to use Korea as a base to serve the rest of the Pacific Rim. Such domestic technological programs are one way to resolve the conflict between progressive labor standards and the profitability and viability of Korean business.