Working Paper

The Russian Forest Sector: opportunities and challenges

Charles A. Backman

WP-96-53
June 1996

IIASA International Institute for Applied Systems Analysis • A-2361 Laxenburg • Austria
Telephone: +43 2236 807 • Telefax: +43 2236 71313 • E-Mail: info@iiasa.ac.at

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Foreword

Siberia's forest sector is a topic which recently has gained considerable international interest.

IIASA, the Russian Academy of Sciences, and the Russian federal Forest Service, in agreement with the Russian Ministry of the Environment and Natural resources, signed agreements in 1992 and 1994 to carry out a large scale study on the Siberian forest sector. The overall objective of the study is to focus on policy options that would encourage sustainable development of the sector. The goals are to assess Siberia's forest resources, forest industries, and infrastructure; to examine the forests' economic, social, and biospheric functions; with these in mind, to identify possible pathways for their sustainable development; and to translate these pathways into policy options for Russian and international agencies.

The first phase of the study concentrated on the generation of extensive and consistent databases of the total forest sector of Siberia and Russia. The study, now in its second phase, is focusing on assessment studies of the greenhouse gas balances, forest resources and forest utilization, biodiversity and landscapes, non-wood products and functions, environmental status, transportation infrastructure, forest industry and markets. and socio-economics. This report is a contribution to the analysis of the topic of forest industry and markets.

EXECUTIVE SUMMARY

The forest sector of the then Soviet Union, and now Russia, has long fascinated timber interests from around the world. While regionally an important producer and trader, it is the stock of forest resource which has captured the imagination, ever more so now in light of drastically reduced harvest potentials taking place in many parts of the world including Canada. Collapsing industrial activity inside Russia and other republics of the former USSR has revealed an apparent surplus between what the forest resources can sustain and what the present harvest supporting both domestic consumption and current export levels would suggest. Furthermore, the capital stock utilized by the domestic forest sector is antiquated, and in need of replacement as that left over from the previous regime is consumed, thus creating opportunities for participation in the replacement of the capital stock. Additionally, while domestic consumption levels are currently quite small, rising consumption driven by a successful transition away from the centrally planned economy could well open up opportunities to service domestic demand by either exporting to Russia or participation in the domestic forest sector through joint-ventures and/or acquisition of shares of Russian companies.

Opportunities for extensive development of the forest resource exist in the eastern portion of the country, most likely with an eye towards servicing the Pacific Rim market. High relative transportation tariffs will likely conspire in the short term to limit export potential to the western parts of Russia unless substantial value adding activities can be performed on the resource. With the largest part of the population located in the western reaches of the country, shorter transportation distances may favour a focus on the domestic market in the longer term. Rising consumption brought on by a successful contract among the various participants of the Russian house will collide with a less flexible wood supply, thus leading to rising prices for the wood raw material. Securing long-term commitments for a wood supply at a time when supply is not as critical an issue could yield large dividends to those bold souls willing to brave the Russian environment at this stage.

However, despite the widely recognized potential in Russia, and the flood of foreign investment, many questions remain concerning the realization of the potential. The success or failure of a joint-venture, or a Russian company in which a foreign organization has a recognizable share, can be affected by a number of institutional factors generic to Russia.

First, while selection of the right location can often place one far away from the bureaucratic jungle in Moscow, it does not necessarily translate into an escape from bureaucracy at the local level. Even though the centre in Moscow is attractive, and should be factored into any serious investment strategy, local authorities with new powers can have an even greater impact on the day to day activities of an investment.

Second, the selection of the right partner who can navigate the labyrinths of Russian society is crucial. An undeveloped wholesale market can make sourcing of even the most basic of supplies problematic particularly if the enterprise has been unable to establish some form of vertical integration. Additionally, administrative impediments, vestiges from the relationship society which has evolved in Russia, can place a high premium on the former employment history and educational background of the Russian partner. Many of the managers under the former regime have surfaced as players in the new environment in Russia. Prior relationships can expect to have a large impact on the willingness of these emerging leaders of the post Soviet Russia to work together.

Third, the cultural differences that exist between Russian and non-Russian alike are still important. Empathy and feeling good about a relationship among business partners are important factors in a society which has long functioned under a relationship paradigm. Cultural insensitivity can effectively neutralize this feeling of good will, and lead to endless rounds of misinterpretation and misunderstanding as the trust building paradigm is repeated.

Fourthly, the structure of the deal is important since assets have been sharply undervalued when considering the relationship between the ruble and the dollar. There is a need to recognize purchase power parity of the ruble and not take a literal translation of the value contributed by

the Russian partner by applying the exchange rate to the ruble price in the domestic market. A feeling that the foreign partner is trying to depreciate the contribution of the Russian partner can effectively introduce a large impediment to the relationship, destroying the trust on which many relationships are based.

Fifth, motivation of the workers is important given the socialistic environment under which employees have operated. Motivation of local workers with the proper incentives cannot be overlooked since under the communist system a great leveling took place.

Finally, foresight is crucial, particularly concerning those firms which must rely on a number of raw material inputs. The absence of a well defined wholesale market has placed a high premium on vertical integration either through control of the actual assets producing the raw material input or through a person who has an intimate knowledge and historical link with the major players in the supply line.

Acknowledgments

Much of the background research linked to this paper would not have been possible without the help and patience of a number of people, including my wife, Peggy Pantel. Furthermore, without the financial resources provided by Industry Canada for the IIASA Study, this document would not have appeared in its present form. And finally, IIASA provided the time during and the environment within which to complete this report.

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1.0 INTRODUCTION

The removing of the veil which long shrouded the former USSR, and now Russia, has continued since initiated during the tenure of Gorbachev. Subsequently continued and expanded under Yeltsen, the opportunities revealed and created by the transition from the centrally planned economy to the market oriented have been widely documented, although the early experiences have been mixed.[1] The acceleration of reform and the continuing of the privatization process has wetted the appetite of many an entrepreneur who sees Russia as a land of opportunity.[2] This interest has also found a resting place in the forest sector.[3]

The forest sector of the then Soviet Union, and now Russia, has long fascinated timber interests from around the world. While regionally an important producer and trader, it is the stock of forest resource which has captured the imagination, ever more so now in light of drastically reduced harvest potentials taking place in many parts of the world including Canada.[4] Collapsing industrial activity inside Russia and other republics of the former USSR has revealed an apparent surplus between what the forest resources can sustain and what the present harvest supporting both domestic consumption and current export levels would suggest.[5] Furthermore, the capital stock utilized by the domestic forest sector is antiquated, and in need of replacement as that left over from the previous regime is consumed, thus creating opportunities for participation in the replacement of the capital stock. [6] Additionally, while

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[1]Kvint, Vladmir, Don't give up on Russia, The Harvard Business Review, March-April 1994, pp. 62-74

[2]McKay, Betsy, Betting on roulette, NewsWeek, August 1, 1994, pp. 18-19

[3]PROLOG, Russian timber industry hungers for international joint ventures, Panel World, September 1992, pp. 24-27; Read, Richard, Northwest timber firms sharpen saws for Russian forests, The Oregonian, October 11, 1993, p. A8; Abusow, Kathy, Fertile ground for investment in Russia's vast forests, *PPI*, January 1995, pp. 48-51

[4]Lush, Patricia, Forester has to chop the cut, The Globe and Mail, March 30, 1995, p. B8; Apsey, Mike and Reed, Les, World timber resources outlook - Current perceptions, A discussion paper, Vancouver: Council of Forest Industries (COFI), 1994, 160 pp.; Sutton, W. (Wink) R.J., The world's need for wood, Unpublished paper presented at Portland, Oregon on November 1, 1993 to the Forest Products Society's conference, "The Globalization of Wood...", Rotorua: Forestry, 1993, 20 pp.

[5]Backman, Charles A., The Russian forest resource - physical accessibility by economic region, Contract report for Canadian Department of Industry, 1994, pp. 179; Backman, Charles A., The Russian forest sector: a bear for all seasons..., March 1995, pp. 30, paper presented at the CPPA Annual Woodlands Meeting, Montréal, Qué.

[6]Molochnikov, Yu.A., *Sostoyanie i otsenka nauchno-tekhnicheskogo progressa v otraslyakh lesnogo kompleksa* (Composition and appraisal of the scientific-technological progress in the forest sector), p. 79; Sominskogo, V.S., *Ekonomika tsellyulozno-bumazhnoy promyshlennosti* (Economics of the pulp and paper industry), p. 37; Backman, Charles A., Analysis of importing coniferous veneer and plywood from the

domestic consumption levels are currently quite small, rising consumption driven by a successful transition away from the centrally planned economy could well open up opportunities to service domestic demand by either exporting to Russia or participation in the domestic forest sector through joint-ventures and/or acquisition of shares of Russian companies.

During the challenging times brought on by the re-appraisal of the forest resource and the roles it plays in society, much uncertainty remains concerning the potential role to be played by the forest sector in Russia. This report focuses on emerging investment opportunities and challenges for the international forest sector created by the ongoing transformation taking place inside Russia.

The report is divided into 5 parts beginning with **1. Introduction**. Part **2. Background** provides a historical perspective to investment inside Russia, while part **3. Administrative Factors** examines some of the structural impediments affecting the investment decision, including the lessons which can be learned from previous experience. Part **4. Forest Sector** provides an overview of the sector revealing the fundamentals supporting the opportunities latent in Russia. Part **5. Opportunities** provides an overview of which in sectors opportunities may exist.

Russian Far East and East Siberia into the west coast of the United States, p. 46-48

2.0 BACKGROUND

Perestroika, *glasnost'*, and *uskorenie*, symbolizing the urgency necessary to reinvigorate the economy, adopted symbolic significance during the Gorbachev era (1985-1991). Efforts begun in the middle of the last decade with such high hopes were by the end of the 1980s showing signs of wear. The economy of the then USSR was in shambles. Nearly 30 percent of the people were living below the official poverty line at the end of 1989, estimated to be US $1,920 at the official exchange rate of 1.6 dollars per ruble.[7] By 1993, the proportion had increased to some 90 percent of the population.[8] Not only was the economy morbid, but the general environment which supported social activity was endangered.[9] The agricultural sector, with a potential to feed the nation, was struggling.[10]

Declining growth with ever higher investment was painting a picture of an economy soon to be eclipsed.[11] The leadership of the then USSR was not unaware of the looming crisis, realizing that foreign investment and technology would be needed if the Soviet Union were to be a serious contender in the global economy of the 21 st century.[12]

Such companies as MacDonald's, Nokia, PepsiCola, and Phibro Energy/Anglo-Suisse were among the first foreign organizations to become established in a major way inside the then Soviet Union.[13] Despite the cyclical variations in high level support to the reformation of the then Soviet Economy, other companies continued to investigate opportunities. Such companies included Daimler-Benz, KPMG Marwick, Peugeot, and Siemans.[14,15]

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[7]Dentzer, Susan and Trimble, Jeff, The Soviet economy in shambles, U.S. News & World Report, November 20, 1989, p. 25

[8]Kvint, Vladimir, Don't give up on Russia, The Harvard Business Review, March-April 1994, p. 62

[9]The World Bank, A study of the Soviet economy, Volume 3, pp. 1-29

[10]Gregory, Paul and Stuart, Robert, Soviet economic structure and performance, 3 rd edition, pp. 267-289

[11]Shmelev, Nikolai, and Popov, Vladimir, The Turning Point, p. 306

[12]Gorbachev, Mikhail, Perestroika, pp. 17-25

[13]Melcher, Richard *et alia*, From gung-ho to uh-oh, Business Week, February 11, 1991, p. 43

[14]*Ibid.*, 43

[15]The major impacts connected with the fluctuating political climate were through withdrawal of credit guarantees from such government backed organizations as the US Export-Import Bank and the UK's Credit guarantee Department.

While the reform process continued into the fall of 1990, increasing resistance of the people holding positions identified on the *nomenklatura* eventually compelled Gorbachev to shift back to a more rigid policy not only with the foreign community but also with the Russian peoples.[16,17] January 1991 gave more substance to the shifting policies with more reliance on the military and para military to maintain order. The pendulum towards greater centralized control eventually resulted in the ill fated coup attempt of August 1991.

While reformers eventually were returned to power, the failed coup served to accelerate the disintegration of the old power structures, creating new obstacles to the promulgation of joint ventures while easing others. Following the demise of the USSR, the process of reform continued with increasing speed under the tenure of Yeltsen. However, as the state disintegrated, structures long taken as part of the background environment failed to materialize.[18]

Liberalization of the financial markets and the introduction and initialization of the privatization process have heightened interest in a country with bountiful natural resources, a well educated work force, and a transportational infrastructure which may not be as inefficient as some believe.[19,20] From some 200 million dollars of foreign investment in 1992, by 1994 about 2 billion dollars is believed to have been invested inside Russia by foreign concerns. [21] The return to life of the Russian Constitutional Court in February 1995 (since being suspended during the October 1993 Parliamentary uprising) is another sign of Russia continuing along the path to a law governed state. [22] Large US concerns such as IBM, GE, Ford, HP, and Eastman Kodak have a presence, while six of the major international accounting firms have offices in Russia in

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[16]The *nomenklatura* were the key posts in all areas of the government and economy. The *nomenklatura* was dominated by members of the Communist Party *Apparat*, the 5 percent of the Party members who worked full time for the Party under the leadership of the Secretary (Christian, David, Power and privilege, p. 231).

[17]Brady, Rose and Galuszka, Shattered dreams, Business Week, February 11, 1991, p. 41

[18]The Economist, Russia's Mafia, *The Economist*, July 9, 1994, pp. 19-22; The Economist, Russia's crumbling financial pyramid, *The Economist*, July 30, 1994, pp. 67-68

[19]Kranz, Patricia, Russia's state sell-off: 'It's sink-or-swim time', Business Week, July 4, 1994, p. 16-17

[20]The Harvard Business Review, The Russian investment dilemma, The Harvard Business Review, May-June 1994, p. 40

[21]McKay, Betsy, Betting on roulette, Newsweek, August 1, 1994, p.19

[22]The Economist, Rights arrive, The Economist, February 18, 1995, p. 51

order to service the Russian market better.[23] CS First Boston, a significant player in the international financial world, has had a major presence in the burgeoning financial market.[24] First Boston was instrumental in the recent acquisition of AO Volga, a producer of one-third of Russia's newsprint, by among other foreign investors, Herlitz International Trading (HIT).[25]

Continuation of the privatization process has added fuel to the increasing interest by foreigners in the Russian market.[26] The continuation of the sell-off of state assets with the opportunity for direct foreign ownership has heighten interest of both foreigners and Russians alike, although the nascent market structures have not been without flaws. [27] Furthermore, the disintegration of the old structures and the yet to appear new ones to take their place is in some ways decreasing the overall appeal to the foreign investor, and indeed, disenfranchising many of the early supporters of the reform process.[28,29] Indeed, the experience of both Weyerhaeuser and Hyundai, reviewed in the next part, provide an illustrative example of some of the pitfalls for those companies which have been embroiled in Russia under the former and current regimes.[30]

More recently, the rights of shareholders have been unclear and the opportunities to dispose of shares has been undeveloped except for the 50 largest companies.[31] Opportunities to profit at the expense of unsophisticated shareholders has been high, aptly described through the saga of AO-MMM.[32] Despite these high profile events, Russia continues

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[23]The Harvard Business Review, The Russian investment dilemma, The Harvard Business Review, May-June 1994, p. 42

[24]The Economist, The loneliness of being first, The Economist, September 24, 1994, p. 78

[25]The Economist, A survey of Russia's emerging market - A silent revolution, April 8, 1995, Survey p. 9

[26]The Economist, The problem of Polevanov, The Economist, January 7, 1995, p. 60-61; The Economist, The loneliness of being first, The Economist, September 24, 1994, p.78

[27]Kranz, Patricia, Russia's state sell-off: 'It's sink-or-swim time', Business Week, July 4, 1994, p. 16-17; Rossant, Juliette, In Moscow, it's location, location, location, Business Week, July 25, 1994, p. 20

[28]Fedarko, Kevin, Aviation: Russian air roulette, Time, April 18, 1994, p. 50

[29]Elliott, Dorinda, 'I believe in nothing' - Russia: A lost generation, Newsweek, July 11, 1994, p. 10

[30]Tak, Kwang-il, Foreign investment in the forest sector in the Russian Far East and potential market integration with Northeast Asia, p. 43-62; Read, Richard, The Weyerhaeuser deal: Part one, The Sunday Oregonian, October 10, 1993, p. A1, A32; Read, Richard, The Weyerhaeuser deal: Part two, The Oregonian, p. A1, A8

[31]The Economist, Russian Stock market: The problem of Polevanov, The Economist, January 7, 1995, p. 60-61

[32]The Economist, Back from the grave, The Economist, September 10, 1994, p. 88-93; The Economist,

to attract the attention and interest of not only people in the West, but entrepreneurs and ordinary citizens in Russia.[33]

However, despite the widely recognized potential in Russia, and the flood of foreign investment, many questions remain concerning the realization of the potential. The next section illuminates some of the more common pitfalls which have frustrated the formation of joint-ventures in Russia to date, and can still be expected to impede the operation of enterprises in which foreign concerns have a recognizable stake through the acquisition of shares.

Russia's crumbling financial pyramid, The Economist, July 30, 1994, p. 67-68

[33]The Economist, Survey: Russia's emerging market, April 8, 1995.

3.0 ADMINISTRATIVE FACTORS

The success or failure of a joint-venture, or a Russian company in which a foreign organization has a recognizable share, can be affected by a number of institutional factors generic to Russia. This section provides a historical review of the success or failure of joint-ventures in the former Soviet Union, and now Russia. before examining some of the common factors which have interfered with joint-venture formation and can be expected to affect the operations of companies in which foreigners have invested a recognizable share. The experience of two forest product organizations foreign to Russia and which had interests in the Russian Far East are presented in terms of the generic factors discussed.

3.1 BACKGROUND

The legal framework supporting the establishment of joint-ventures inside the former Soviet Union pre-dates the Gorbachev era when Andropov adopted a decree permitting joint ventures with CMEA countries.[34] While introducing the supporting legislation in 1983, it was not until 1985 that the first two of such organizational structures appeared.[35] The drive to improve the flow of goods and services from the centrally planned systems acted as impetus for further decrees permitting the creation of joint ventures in the former Soviet Union. From January 1987 when another two decrees authorizing joint ventures appeared, it was possible for both CMEA countries and other countries to participate in joint ventures.[36,37]

The initial reception by the foreign community to the joint venture regulation was muted, due to the onerous conditions attached to the joint venture formation. The number of negative conditions linked to the joint

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[34]Åsland, Anders, 1989, Gorbachev's struggle for economic reform, p. 140

[35]*Ibid.*, p. 140

[36]*Ibid.*, p. 140

[37]CMEA is short for the Council for Mutual Economic Assistance. The CMEA was formed in 1949 as a vehicle through which to promote increasing integration of Eastern European countries with the former Soviet Union. As with the USSR, the CMEA is no longer relevant when examining current affairs in Eastern European of countries belonging to the former Soviet Union. A brief discussion of the CMEA and trade during the Soviet era are to be found in: Gregory, Paul R. and Stuart, Robert C., Soviet economic structure and performance, 3 rd edition, pp. 291-317; Shmelev, Nikolai and Popov, Vladimir, The turning point - Revitalizing the Soviet economy, pp. 220-246; and Åsland, Anders, Gorbachev's struggle for economic reform, pp. 136-141

ventures included: (1) the Soviet share of an enterprise had to be greater than 51 percent; (2) the president of the board and the managing director had to be Soviet citizens; and (3) the joint venture would be subject to the ordinary legal environment, thus exposing the foreign partner to a myriad of laws and regulations which were beyond its ability to see.[38]

By December 1987, only 23 joint ventures had been registered, reaching 193 by the end of 1988. Changes in the legislative umbrella at the end of 1988 helped to ease some of the concern sparked by the initial legislation, propelling the number of registered joint ventures to 1,754 by the middle of 1990.[39]

By the end of 1989, the initial enthusiasm had begun to wane though, replaced by a sobering assessment of the obstacles which needed to be surmounted or finessed. By the middle of 1992, three obstacles unique to Russia continued to plague the investment environment in Russia. They were (1) currency convertibility, (2) supply shortages; and (3) the constantly shifting regulatory climate.

Although the number of registered joint-ventures had grown, it was not the number of registered joint ventures, but the number of those which were actually operating which was lagging. Officially, by the middle of 1990, only 541 fit into this category, accounting for some 30 percent of all those registered. More alarming was the nature of the joint ventures, most of which were smaller and had less capitalization than either international or the then Soviet standard.[40]

Despite the shift back to a more hard line approach to the management of the Soviet economy during 1990 and 1991 and the unsuccessful coup towards the end of 1991, the number of operating joint ventures climbed from 541 in June 1990 to more than 2,500 at the end of 1992.[41] The rise of Yeltsen and the demise of the former Soviet Union coupled with strong support for the reform process helped to spur operating joint ventures to

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[38]Åsland, Anders, 1989, Gorbachev's struggle for economic reform, p. 140

[39]The World Bank, A study of the Soviet economy, Volume 2, p. 102

[40]*Ibid.*, p. 76-78

[41]Goskomstat Rossii, *Rossiyskaya federatsiya v 1992 g.*,(Statistical handbook of the Russian Federation in 1992) p. 62

4,000 by the end of 1993.[42] By 1993, the share of the registered joint ventures which were actually operating had increased from one-third in 1990 to almost 80 percent while the financial markets continued to develop.[43,44]

3.2 FACTORS AFFECTING THE SUCCESS OF JOINT-VENTURES

However, the success of these numbers belies the dismal record of those joint ventures successfully passing through all stages in the process. Only some 8 percent of those organizations which started along the path to joint venturdom between 1989 and 1993 actually completed the journey.[45]

Almost 40 percent of the organizations which started along the path to JV dom failed to complete the journey due to the right partner. Legal and bureaucratic problems accounted for one-quarter of the failed organizations while insufficient capitalization represented one-fifth of all organizations. Only one organization in twenty broke off the relationship due to an unfavourable feasibility study.

Despite the dismal record of successfully completed joint ventures, much of the record has been credited to poor planning on the part of the foreign partner.[46] Furthermore, the climate for investment may becoming decidedly favourable since between 35 and 38 percent of all joint ventures formed between 1989 and 1993 are already profitable or well on their way.[47]

However, despite the favourable conditions, investment receives a mixed review.[48] While the potential was widely recognized, a number of obstacles were highlighted which form a structural impediment to

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[42]Bystriytskiy, S.P. and Lutsenko, L.N., *Sovmestnye predpriyatiya v lesnoy industrii Dal'nego Vostoka* (Joint-ventures in the forest industry of the Far East), 1994, p.12

[43]The Economist, High stakes on the high steppe, The Economist, October 16, 1993, p. 77-81

[44]Bystriytskiy, S.P. and Lutsenko, L.N., *Sovmestnye predpriyatiya v lesnoy industrii Dal'nego Vostoka* (Joint-ventures in the forest industry of the Far East), 1994, p.12

[45]Kvint, Vladmir, Don't give up on Russia, The Harvard Business Review, March-April 1994, 64

[46]*Ibid.*, p. 63

[47]*Ibid.*, p. 62

[48]The Harvard Business Review, The Russian investment dilemma, The Harvard Business Review, May-June 1994, p.35-44

unfettered investment. Although recognizing the skills resident in the domestic workforce, and finding the existing infrastructure not nearly as poorly off as was once thought, it is the investment climate which is causing the most angst.

The absence of a commercial code, increasing concern with disintegration of law and order and an unwillingness to participate in international business according to normally acceptable behaviour were having their toll. Unstable economic conditions linked to hyper inflation and a fluctuating exchange rate were shortening the investment horizon. Bureaucratic decision making and the absence of legal protection for investment were conspiring to limit the inflow of capital. The tax climate and overlapping authority for taxation among the different levels of government were often siphoning away the margin needed by organizations to compensate for the risk. The absence of modern commercial law which often facilitates transactions, the emerging corporate structures often lacking any vision or corporate culture which can be used to harness the energy latent in the employees, and existing accounting structure is not geared to a modern interpretation of value, making assessment of net worth difficult.

While joint-ventures which have been successfully promulgated appear to be on the whole a good advertisement for seriously considering investment in Russia, the success appears to depend on at least six fundamental factors, presented below, which need to be adequately addressed.[49]

First, while selection of the right location can often place one far away from the bureaucratic jungle in Moscow, it does not necessarily translate into an escape from bureaucracy at the local level. Even though the centre in Moscow is attractive, and should be factored into any serious investment strategy, local authorities with new powers can have an even greater impact on the day to day activities of an investment.

Second, the selection of the right partner who can navigate the labyrinths of Russian society is crucial. An undeveloped wholesale market can make sourcing of even the most basic of supplies problematic

[49]Kvint, Vladmir, Don't give up on Russia, The Harvard Business Review, March-April 1994, pp. 70-74

particularly if the enterprise has been unable to establish some form of vertical integration. Additionally, administrative impediments, vestiges from the relationship society which has evolved in Russia, can place a high premium on the former employment history and educational background of the Russian partner. Many of the managers under the former regime have surfaced as players in the new environment in Russia. Prior relationships can expect to have a large impact on the willingness of these emerging leaders of the post Soviet Russia to work together.

Third, the cultural differences that exist between Russian and non-Russian alike are still important. Empathy and feeling good about a relationship among business partners are important factors in a society which has long functioned under a relationship paradigm. Cultural insensitivity can effectively neutralize this feeling of good will, and lead to endless rounds of misinterpretation and misunderstanding as the trust building paradigm is repeated.

Fourthly, the structure of the deal is important since assets have been sharply undervalued when considering the relationship between the ruble and the dollar.[50] There is a need to recognize purchase power parity of the ruble and not take a literal translation of the value contributed by the Russian partner by applying the exchange rate to the ruble price in the domestic market. A feeling that the foreign partner is trying to depreciate the contribution of the Russian partner can effectively introduce a large impediment to the relationship, destroying the trust on which many relationships are based.

Fifth, motivation of the workers is important given the socialistic environment under which employees have operated. Motivation of local workers with the proper incentives cannot be overlooked since under the communist system a great leveling took place.

Finally, foresight is crucial, particularly concerning those firms which must rely on a number of raw material inputs. The absence of a well defined wholesale market has placed a high premium on vertical integration either through control of the actual assets producing the raw

[50]The Economist, Russia's emerging market survey, April 8, 1995, p. 15-16

material input or through a person who has an intimate knowledge and historical link with the major players in the supply line.

3.3 THE FOREST SECTOR TWIST

Many of the generic observations and factors presented above find substance in the experiences of two initiatives taking place in the forest sector. Following a brief overview of the exposure of the global market place to Russian forest products, the experiences of Hyundai and Weyerhaeuser are presented for illustrative purposes.

3.3.1 Exposure to the international market place

The forest sector of Russia has been long known to the international community through the activities of *Eksportles*.[51] Primarily it was this organization which was vested with the responsibility of interfacing with the domestic industry in order to meet foreign demands for wood and paper products. Through the efforts of *Eksportles*, consumers in Europe and Pacific Rim countries were able to appreciate the products and potential of the forest sector.

However attractive the market acceptance of Russian forest products in these export markets, participation in the potential of the Russian forest sector is not without its travails, amply evident from the experience of two large forest firms active since the last half of the 1980s. Both of these firms encountered obstacles to the continuation of their project, and in one instance leading to the cessation of the initiative. The following provides an overview to the Hyundai and Weyerhaeuser projects placing the generic observations presented earlier in some context.

3.3.2 HYUNDAI

Hyundai interest in the former Soviet Union has its origins in the thawing of relations at the governmental level preceding and immediately following the Olympic games in Seoul in 1988. While links between South Korea and the former Soviet Union were formally possible since 1973, trade between the two countries was minor, amounting in 1980 to only

[51] V/O Exportles, V/O Exportles 1926-1986, Moscow, 93 pp.

36 million dollars. Trade levels grew since then reaching nearly 400 million dollars by 1988 and 600 million dollars by 1989. However the overall contribution to South Korea trade has been minor, amounting in 1989 to only 0.5 percent of total South Korean turnover.

A number of high level missions visited the Soviet Union searching for sectors and opportunities which could serve as recipients of South Korean investment. Two areas were highlighted as possible recipients for Korean investment. These areas were coal and forestry.[52]

Hyundai, despite the numerous difficulties encountered by other organizations from other countries, optimistically proceeded with the forestry project in *Primorskiy Kray*. Their partner, *Primorsklesprom*, was the regional forest industrial sector organization, well connected with the local government and could have been expected to be familiar with the political environment in Moscow as well as the legal framework affecting management of the forest resource. *Primorsklesprom*, having a good understanding of the then existing environment within which the joint venture would be operating, appeared an ideal partner for Hyundai according to the conditions of the time.

While the joint venture was being processed through the then Soviet system, political changes at a national level led to the demise of the Soviet Union, and the emergence of new power structures from the aftermath of the collapse. Continual fragmentation of the centrally planned system, and the evolving democratic structures in Russia resulted in increasing contacts among Russian organizations and between organizations inside Russia and those in the global arena.

International organizations with an environmental focus developed a strong interest in the environmental role played by forest development. Forging links with the indigenous peoples, the joint venture stumbled when the rights of the first peoples were ignored, despite existing legislation to the contrary. International environmental groups, capitalizing on the predicaments of the local people, and in concert with domestic environmental movement support were able to limit the initial

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[52]Kee Woo-Sik, Current Status and Prospects of South-Korean Trade, Sino-Soviet Affairs, Vol. XIV, No. 3 Fall 1990, p. 16-17.

developmental plans of Hyundai. The annual harvest levels were sharply reduced from a planned one million cubic meters to some 250 thousand cubic meters. While Hyundai has been continuing at the 250 thousand cubic meter level, the experience illustrates two issues.

First, the selection of the joint venture partner is important, especially the links which it has with Russian society. Furthermore, it is not the linkages with the current regime which are important, but the existence or lack there of with groups which may be presently disadvantaged. A change in the regime effectively negated years of effort placing the operation on a holding pattern at best while new relationships are forged and trust rebuilt.[53] Hyundai was captive of their Russian joint venture partner and the history which it brought to the relationship.

Second, the large scale operation, affecting the land itself, attracted much interest at a time when very little collective knowledge existed in Russia concerning the behaviour of foreign organizations. Development of the natural resources by a non-Russian company, about which not very much was known by the local people, became a potent symbol through which to marshal support for the protection of "mother Russia". The opportunity to learn about, absorb, and understand the paradigms underlying every day life and those underlying the commercial world in Russia by Hyundai, or of those affecting Hyundai by the Russian peoples, was not sufficient. Rather than pursuing their Russian venture initially in a small way, allowing for a learning curve and adjustment process by organizations and people with stakes in the resource and operation of the joint-venture, Hyundai embarked on their turn key operation.

3.3.3 WEYERHAEUSER

The interest of Weyerhaeuser in the timber resources of the Far East commenced in the late 1980s. While negotiations continued throughout the late 1980s and early 1990s, further development beyond focusing on

[53]The process of bringing together the different groups with an interest in resource management, and through consensus, creating a paradigm supporting their ongoing use, is at the centre of the Russian Model Forest Initiative of the Canadian Government. By drawing together the different threads of society, as one group sees their influence diminishing, the effect on the management of the resource should not lead to a discontinuity. Interests with rising influence should not see the need to radically restructure the contract underlying management of the natural resources since their concerns should have already been accommodated in some manner.

the *Koppinskiy lesokombinat* on the coast of Khabarovsk Kray was frustrated.[54]

The prospective Russian partner(s) were part of the old system responsible for managing the forest sector of the Far East. Well aware of the differences existing then between prices available for their products in Japan, South Korea, and China, and the cost of producing the products in Russia, the Russian partner was unprepared to accept the low stumpage prices being offered to them by Weyerhaeuser. Weyerhaeuser, basing their offer on a vector of costs and prices linked to the global market place, believed that in the long run the price of goods and services in Russia would rise in the short term to reflect supply and demand at an international level. Consequently, basing an offer on sourcing goods and services at prices existing in Russia that were not expected to be available over the planning horizon meant that much of the surplus evident in the early 1990s when comparing the cost of production in Russia with the prices available in Japan would disappear as the adjustment process in Russia continued. The Russian side, not unexpectedly, was focusing on the wide differential existing then between the cost of delivering the wood and the price realizable in the international market. Raised in an environment surrounded by administered costs and prices, the thought of a rapidly rising cost and price structure in the domestic market was difficult to accept.

The crumbling state planning system, while providing opportunities to Weyerhaeuser to deal directly with the management of the individual enterprise, also provided the opportunities to senior members of the forest sector from the old system to monopolize on the weakening of the centrally planned system. While on the surface the approach by Weyerhaeuser to shift the focus of their negotiations to an enterprise level of organization seemed appropriate, the lack of clear property rights was another hurdle which lay before it.[55]

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[54]While having good timber resource base, the *Koppinskiy lesokombinat* was located right on the coast of *Khabarovskiy Kray*. Consequently, not only was the need to rely on the local transportational network effectively minimized, but there was also direct access to the location from the water. The delivery of supplies by-passing the local distribution network was accordingly an option.

[55]Initially, the people with whom Weyerhaeuser was interacting were located within one of the two association responsible for the forest management in the Russia Far East. The management of this organization was through enterprises which were responsible for the industrial activity in the forest. Consequently, control and "ownership" was vested at the association level of organization.

Without a clear idea of who the players were that needed to be dealt with, Weyerhaeuser became captive of the local environment. Not only was Weyerhaeuser unsure of the process, but Russian organizations were also unsure of the new territory into which Russian society was entering. Consequently, the links among the former holders of the decision making apparatus continued to exert influence beyond that which would seemingly be possible given the emerging opportunities to deal directly with the enterprise management. The possibility to deal directly with the enterprise management as privatization continued was denied them because of unclear property rights and a legal system and commercial code which was not similar to that existing in the US. Furthermore, the desire to actively develop a harvesting area, including employing their own management approach created the opportunity for international environmentalists to enlist the support of local stockholders in the management and use of the natural resources. The local forest community was unfamiliar with the approach of Weyerhaeuser and consequently needed to examine the approaches in a more rigorous way before accepting them. The debates and discussions created endless delays, finally resulting in a cessation of the Weyerhaeuser initiative.

The examples revealed by Weyerhaeuser help to highlight four of the points mentioned earlier. First, although selecting the Far East as a region on which to focus attention, far removed from Moscow, the local bureaucracy proved equally formidable.

Secondly, and linked to the first point, Weyerhaeuser initiated the negotiation process with one group of people and under a different political, economic, and social regime. Both sides of the negotiating process were employing different paradigms when valuating the assets under discussion. Weyerhaeuser was applying their understanding of costs available to them, recognizing that the vector of costs and prices evident in the Russian Far East at the time were unlikely to hold over the time horizon of the investment. The Russian side, growing up in a completely different economic, social, and political environment, under

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As the centrally planned system disintegrated, management control began to flow towards the enterprise level of organization. Consequently, it was not the association which was likely to have "ownership" of the assets, but the enterprise which was actually using them. However, the process of transferring ownership was not clearly defined or clearly understood. Thus, while in theory the local management and employees were being vested with property rights, it was not evident how this would take place in practice.

which prices and costs were administered, were unprepared to accept that there would be a rapid adjustment process as the interface between Russia and the rest of the world became more porous. The large scale nature of the project, coupled with the absence of a common understanding of the paradigms to be employed in managing the relationship, including those affecting sourcing of goods and services over the longer term, increased the risk of accepting one paradigm over the other, or in accepting a compromise one.

Thirdly, in attempting to by-pass the group of people with which initial contact had been established, the strong relationship nature of Russian society was not fully appreciated. There was ample opportunity for the negotiation process to be frustrated and drawn out since there were a myriad of governmental regulations which needed to be addressed before operations could commence. Furthermore, the institutional structures to support privatization and management under a decentralized paradigm were not wholly familiar in Russia, thus inviting a pedantic approach to the distribution of assets, particularly beyond that identified with the Russian peoples.

Fourthly, the management philosophy planned for the forest resource was not completely familiar to the forest sector establishment in the Russian Far East, thus opening the doors to endless discussion concerning the merits of applying a foreign approach to management of the natural resources of Russia. Since the project was such a large scale, it tended to occupy the attention of people, raising concerns of cultural domination. There was little opportunity for assimilation and education that a smaller operation would have offered, posing less risk to experimentation.

4.0 FOREST SECTOR

Opportunities in the forest sector reveal themselves through a description of the background environment. The following chapter provides an overview of the Russian forest sector demonstrating that the fundamentals appear to support a positive investment decision.

The forest resources are presented first in section 4.1 while section 4.2 examines the fiber supply. The domestic consumption and exportable surplus are presented in section 4.3.

4.1 FOREST RESOURCES

The forest resources of Russia are first placed in a global perspective, commenting on the degree to which they dominate the global coniferous resource. The Russian forest resources are then examined in the context of their ability to support annual growth and by inference an annual harvest.

4.1.1 The Global Perspective

Russia, accounting for almost one-quarter of the global forest resources, contains 771 million hectares of stocked forest land and 82 billion cubic meters of growing stock. While representing nearly 10 percent of the world's deciduous forest resource, evident from **Figure 4.1** and **Figure 4.2**, some 50 percent of the coniferous stocked forest land and growing stock are concentrated within her boundaries. When the size of the tropical forest resource is excluded from the deciduous total, Russia accounts for about 20 percent of the remaining non-coniferous stocked forest land and one-third of the concomitant growing stock.[56]

4.1.2 The Wood Basket

The Russian coniferous resource, accounting for more than 70 percent of the forested land and nearly 80 percent of her volume, contains 552 million hectares of stocked forest land and 64 billion cubic meters of growing stock (**Figure 4.3** and **Figure 4.4**). The deciduous resource

[56] A detailed discussion of the Russian forest resources is available from (Backman 1994b).

amounts to 157 million hectares of forested land and 16 billion cubic meters, or approximately one-fifth of each of the total Russian stocked area and concomitant growing stock. The balance of 62 million hectares (8 percent) and 1.4 billion cubic meters (2 percent) consists of species which do not contribute a significant share of the aggregated inventory.

While the forests of Russia can be credited with annual growth of more than one billion cubic meters, much of this potential is not realizable by the forest industry due to uses of the forest which conflict with timber extraction or accessibility affected transportation network or technological limitations.[57,58] It is these limitations, discussed below, which decrease the overall potential of the Russian forest resource by almost 50 percent to some 600 million cubic meters which could possibly be accessible by the forest sector.[59,60]

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[57](Backman 1995b, p. 4-7)

[58]The annual growth potential of the Russian forest is a derived figure based on the sum of a number of composite figures.

First, the forest growth potential is divided into 5 categories. The categories are: (1) low site; (2) reserve; (3) multiple use; (4) transportation & technology; and (5) current. The low site category identifies the share of the growth which is contributed by forested lands in the two lowest site classes of the Russian forest inventory, site class V^a and V^b. These two site classes do not support sufficiently high enough stocking to have been considered economically viable, even under the former centrally planned regime. Throughout Russia, some 100 million cubic meters of growth potential have been credited to these forests.

Reserve forests reflect the share of the forest inventory which is not available for use by the forest sector due to either uses which directly conflict with harvesting or access limitations which cannot be addressed during the next twenty years. In total, 264 million cubic meters of the growth potential falls in this category.

Multiple use factors are a derived value based on the different roles which the forest resources are placed. Thus, for forests dedicated to protection, harvesting may be permitted but only if the protection role is not endangered. The difference between the permitted harvest and what the forest (in which harvest is permissible) possibly could support in the absence of restrictions is the share of the growth potential allocated to this category. Throughout Russia, an estimated 156 million cubic meters falls in this category.

The category of transportation and technology encompasses the growth potential which cannot be presently realized due to either inappropriate harvesting technology or absence of infrastructure which cannot be supported solely by the forest sector. Throughout Russia, some 200 million cubic meters falls into this category.

The final category, current, represents the growth potential which is realistically available for use in the short to medium term. The volume is a maximum value, the share of which actually utilized depending on economic criteria. Thus, the current growth potential is in terms of a "physically accessible" connotation. Throughout Russia, 417 million cubic meters falls under this category.

[59]Backman (1994c), p.2

[60]The fiber flow figures are inclusive of a firewood component which varies from 24 percent for coniferous forest to 42 percent for deciduous forest according to (Goskomles 1991a). The share of the harvest from the coniferous forest is slightly lower according to (FAO 1994) however. The figure from Goskomles are believed to be more accurate as part of the harvest is believed not to be accounted for in the (FAO 1994) data set.

4.1.2.1 Growth Potential

Figure 4.5 shows the distribution of the growth potential among the different categories. Almost 10 percent of the forest growth potential, or 100 million cubic meters, is supported by extremely low site forest unlikely to ever have utility for the forest sector.[61] Another one-quarter (264 million cubic meters) is not realizable during the next two decades even with the infrastructure developmental priorities in the late 1980s under the former regime, and may in fact never be realizable in the longer-term due to environmental factors.[62,63] Some 15 percent, or 156 million cubic meters, are not presently available due to restrictions on harvest to accommodate protection values. Almost one-fifth (200 million cubic meters) while potentially available in the medium to longer term must depend on either additions of technology or infrastructural development not supportable solely by the forest sector to be realizable.[64] Of the 1.1 billion cubic meters, less than 40 percent (417 million cubic meters) remains which can be considered realistically accessible in the short to medium term.[65]

Evident from **Figure 4.6**, the coniferous resource supports only 57 percent of the short to medium term fiber potential, or some 236 million cubic meters. The deciduous forest resource supports the remaining 43 percent of the fiber flow (182 million cubic meters).[66] The coniferous resource is more heavily represented in the medium to long-term resource potentially accessible by the forest sector, accounting for almost two-thirds of the 200 million cubic meters falling in this category (130 million cubic meters). The deciduous forest support the remaining one-third of 70 million cubic meters.[67]

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[61](Backman 1994b, p. 75)

[62](*Ibid.*, p. 152)

[63]Almost 80 percent of the 264 million cubic meters are located in East Siberia and the Far East. A large part of the reserve is located on permafrost areas raising questions of succession of a successfully re-established forest cover following harvesting.

[64](Backman 1994c, p. 2)

[65](*Ibid.*, p. 2)

[66](Backman 1995b, p. 7)

[67](*Ibid.*, p. 7)

4.2 FIBRE SUPPLY

The share of the potential harvest which has commercial utility is examined, commenting on the apparent surplus existing between harvest and that potential. A long-term economic harvest level is advanced.

4.2.1 Available Fiber

The potential of the forest resource is realized through processing activities which start with the harvesting component. Through the harvesting activity, solid wood raw material is generated which can be utilized to support the manufacture of more value added products, such as lumber, pulp, or reconstituted panel products, or utilized in unmanufactured form for a variety of uses, which includes pilings, dwellings and heating. However, not all of the fiber potential, identified in **Section 4.1** has commercial utility. A portion of the harvested fiber is lost between the place of harvest and the place of first processing while the harvest which is actually delivered and available consists of a non-commercial component.

Accounting for both of these losses reduces the potentially realizable fiber from the forest resource over the medium to long term from 617 million cubic meters to some 372 million cubic meters, two-thirds of which are believed available to the forest sector in the short to medium term (**Figure 4.7**).

4.2.1.1 Fiber Loss

Very little information exist which quantifies the share of the harvest potential which must be excluded due to losses incurred during the harvesting process. Backman (1993) developed an estimate of 13 percent for all of Russia while Nilsson *et alia* (1992) identified a level of less than 10 percent for the European part of the former Soviet Union. Backman (1995b) employed a composite figure based on both estimates suggesting that the potentially harvestable forest volume must be scaled back by almost 10 percent.

Thus, losses normally encountered in the harvesting process in Russia amount to some 55 million cubic meters of the 617 million identified as realistically accessible in the short to medium and medium to long terms. The short to medium term resource accounts for 38 million cubic meters while the medium to long term forest resource accounts for 18 million cubic meters.

4.2.1.2 Commercial Component

The harvest potential of the Russian forests have been routinely presented inclusive of a firewood component. While the commercial component of the fiber potential varies depending on species and size of the resource as well as the range of manufacturing processes to which the resource can be directed, one-quarter of the coniferous resource and 45 percent of the deciduous resource have not been utilized by the forest sector in the past.

The commercial share of the coniferous forest resource thus is some 75 percent while that in the deciduous resource amounts to 55 percent. The reduction linked to the non-commercial component amounts to 189 million cubic meters in total leaving 250 million cubic meters in the short to medium term and an additional 123 million cubic meters in the medium to long term.

4.2.2 Fiber Utilization

Fiber utilization is discussed in terms of the historic utilization of the forest resource and its distribution between domestic consumption and export. An estimate of economic accessibility is then presented to provide an indication of how current harvest levels compare to two estimates of the equilibrium under a more stable domestic price and cost vector.

4.2.2.1 Historic Utilization

Since 1989, the degree to which the fiber potentially accessible by the forest sector has been utilized has been falling. Shown in **Figure 4.8**, from nearly complete utilization of the short to medium term fiber supply in 1989, represented by a harvest of 439 million cubic meters, only 251

million cubic meters were seemingly harvested in 1993, representing a utilization of 60 percent of the total Russian resource. The corresponding figure for 1992 is 78 percent.

4.2.2.2 Economic Accessibility

Developing an estimate of economic accessibility is rife with uncertainty given the fluctuating exchange rate and inflationary tendencies characteristic of the environment in Russia at the present time. Harvest levels evident in 1993 while reflecting the economic realities of that time period are not necessarily representative of the levels possible when the domestic price and cost matrix achieves some stability with the international level. Backman (1995b) however presented two estimates for long-term economic harvest by imposing a matrix of costs and prices on the Russian forest sector which reflected world levels

Modified to incorporate firewood and harvest loss, **Figure 4.9** shows that economic harvest levels in the short to medium fiber resource could amount to 231 million cubic meters while that in the resource available in the medium to long term could amount to 97 million cubic meters under the Base Case.[68,69] These values represent more than 55 percent of the harvest potential in the short to medium term resource and slightly less than one half in the medium to long term resource.[70]

Presented in **Figure 4.10** are estimated long-term harvest levels incorporating a higher price for roundwood available in the Pacific Rim market. In this case, the economic harvest levels amount to 308 million cubic meters in the short to medium term fiber and 145 million cubic meters in the medium to long-term fiber. These harvest levels represent

[68]The figures presented in (Backman 1995b, p. 168) exclude the harvest loss and the firewood component. The figures presented in this section are inclusive of these two components to the overall fibre supply.

[69]These figures are inclusive of the loss and non-commercial components.

[70](Backman 1995a, p. 7) presents 283 million cubic meters in the short to medium term resource and 143 million cubic meters in the medium to long term resource as a long-term economic harvest level. These numbers were derived assuming that transportation distances were only domestic oriented. The shorter distances between the centre of gravity for harvesting and the domestic consumption centre of gravity when compared to the distance from the harvesting centre of gravity to the export market translated into a higher share of the overall maximum possible being considered economic. The figures presented above are based on a domestic demand kept stable at an estimated 1993 level. Thus, harvest in excess of this level becomes economic only if it can support the higher transportation costs linked to the larger distances to the export market rather than the domestic market. Since the transportation distances to the export market are greater than to the domestic market, a smaller share of the forest resource can be expected to be economically accessible.

three-quarters of the short to medium term maximum fiber possibly available and slightly more than 70 percent of the medium to long-term maximum fiber potential.

4.3 Domestic Consumption and Exportable Surplus

The historical record of harvest, domestic consumption, and export are reviewed. The longer term outlook is then presented based on Backman (1995b).

4.3.1 Historical Record

The forest sector of Russia has relied on export markets to supplement the domestic demand for roundwood generated through industrial activity (**Figure 4.11**). Commercial harvest available for distribution has been falling steadily since 1989 when 290 million cubic meters were produced. By 1993, harvest had fallen to an estimated 165 million cubic meters, slightly less than three-fifths the level existing four years earlier. The share allocated to the domestic industry rose slightly even as export opportunities diminished, particularly in the East European countries and in the republics previously belonging to the former USSR. In 1989, some 85 percent of the domestic commercial volume was reserved for either domestic consumption or to support manufacture of forest products. By 1992, the share reserved for the domestic industry had increased to more than 90 percent as export markets collapsed faster than those inside Russia. In 1992, an estimated 196 million cubic meters of commercial roundwood were directed to the domestic market. By 1993, export markets had begun to stabilize even though the decline continued in the domestic market. However, domestic consumption still accounted for some 90 percent of the domestically produced commercial roundwood (151 million cubic meters).

Exporting 39 million cubic meters in 1989, representing 13 percent of commercial harvest, by 1992 roundwood exports had fallen to 17 million cubic meters, less than 8 percent of the commercial harvest of 213 million cubic meters. The decline continued into 1993 with only 14 million cubic meters of a commercial harvest out of 165 million meters produced being exported (8 percent).

While exports to countries beyond the borders of the former USSR have fallen by one-third from 19 million cubic meters to 12 million cubic meters since 1989, the export markets in the "near abroad" collapsed (**Figure 4.12**). From 20 million cubic meters in 1989, exports to the near-abroad fell to only 2.9 million cubic meters in 1993, underscoring the declining opportunities which the Russian forest sector is facing.

However, it is not just the export market for roundwood which supports economic activity in the harvesting sector. Russia is also an exporter of manufactured products which effectively doubles the share of commercial wood fiber supply depending on factors external to Russia.

Although roundwood accounts for less than one-half of the exported fiber from Russia, opportunities presented by export of manufactured wood products have also declined. Despite this, however, export markets, even in 1993, supported 20 percent of the harvesting activity of Russia.

Shown in **Figure 4.13**, of a total exported fiber of 82 million cubic meters on a fiber equivalent basis in 1989, 36 million were in roundwood form. By 1992, even though total exported fibre had decreased to 41 million cubic meters, unmanufactured roundwood accounted for less than one-half, or 15 million cubic meters. The decline continued into 1993 with only 31 million cubic meters exported of which two-fifths, or 13 million cubic meters were in roundwood form.

4.3.2 Prognosis

An appreciation for long-term export opportunities cannot be made without considering the likely direction of domestic consumption. Increasing domestic consumption brought on by a successful social contract among the various participants of the Russian house will place increasing pressure on the resource to meet higher consumption linked to rising living standards. With the present environment in Russia, it is unlikely that domestic consumption in Russia would be allowed to suffer through unrestricted export of wood fiber.

Backman (1995b) provides a window to the future through four scenarios for domestic consumption and exportable surplus. While the scenarios are based only on the fiber available in the short to medium term, the results help illustrate some of the policy areas which must be addressed by the international community, including that in Russia, if the wealth latent in the Russian forest resource is to be captured by both the Russian and international communities.

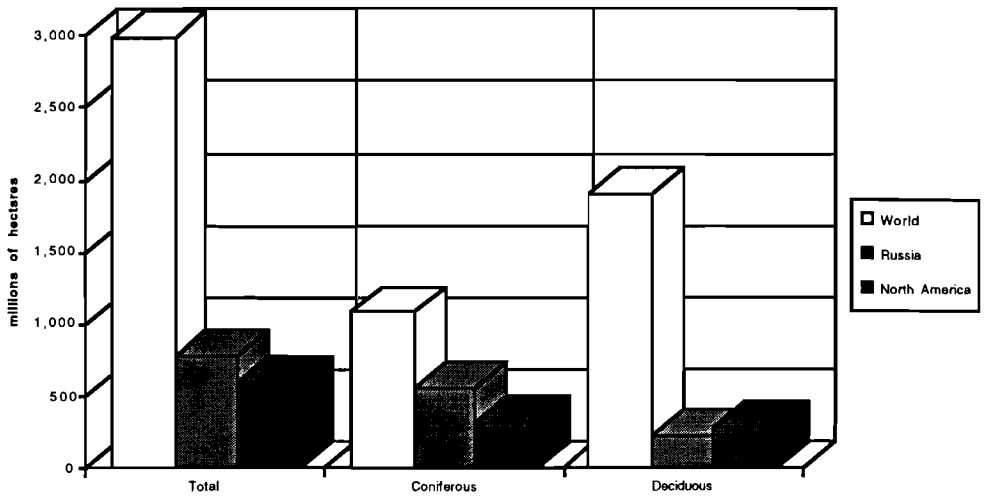
Presented in **Figure 4.14**, continuation of demand evident in 1993, with the vector of world costs and prices imposed on the Russian forest sector system, suggest that some 40 million cubic meters will be surplus, 21 million available for Pacific Rim markets and 19 million available for European markets. Development of the potential resource in the medium to long term can only add to the exportable surplus, though more to Pacific Rim and near abroad markets located on the southern periphery of Russia than to those existing in Europe.

The export surplus is very sensitive to both capital investment and to increasing domestic demand brought on by a successful transition away from the centrally planned economy. Shown in **Figure 4.15**, the absence of capital investment leads to a rapid constriction of in the exportable surplus within 10 years, forcing the forest industry to meet domestic demand through import of a wide range of products. While such a scenario is unlikely, it serves to underscore the importance which the international and Russian policy formation communities should place on issues which affect on the investment climate.

Conversely, shown in **Figure 4.16**, rising domestic demand, brought on by sustained 4 percent economic growth, and when coupled with accessible capital, effectively eliminates the export surplus within 15 years following the start of growth. In the absence of the flow of fiber supported by the resource available in the medium to long term, the exportable surplus declines first for the European and near abroad regions, and disappears by the start of the third five year period. Modest exports to the Pacific Rim region continue into the third period but are completely absent by the start of the fourth.

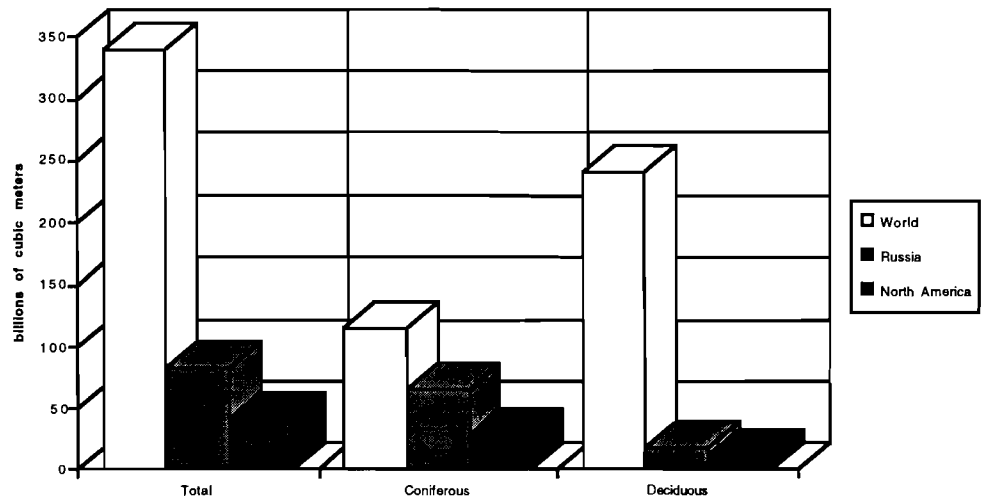
However, accounting for the higher prices available for unmanufactured forest products in the Japanese market has a large impact on the fiber surplus to domestic demand. Exports from Western Russia rise to 38 million cubic meters from 19 million and to 45 million cubic meters from the eastern region from 21 million cubic meters (**Figure 4.17**).

FIGURE 4.1: WORLD and REGIONS - Stocked forest land



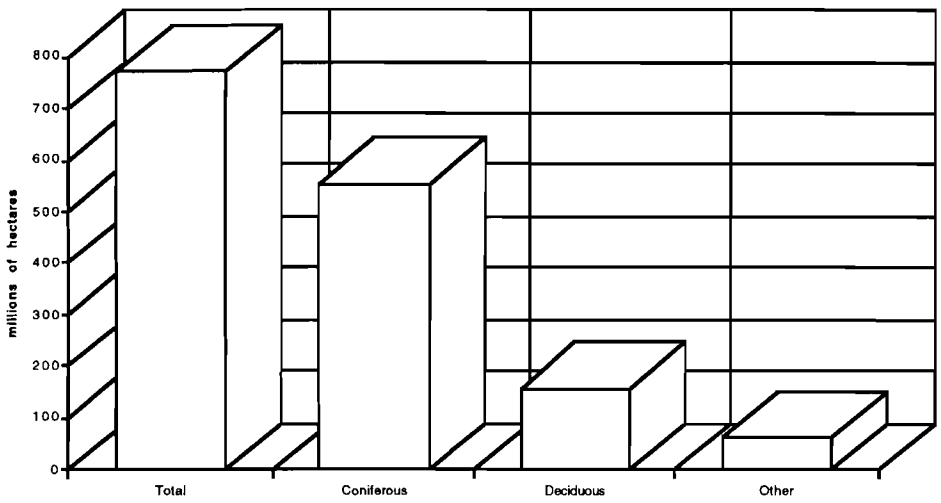
Source: Backman (1994b)

FIGURE 4.2: WORLD and REGIONS - Growing stock



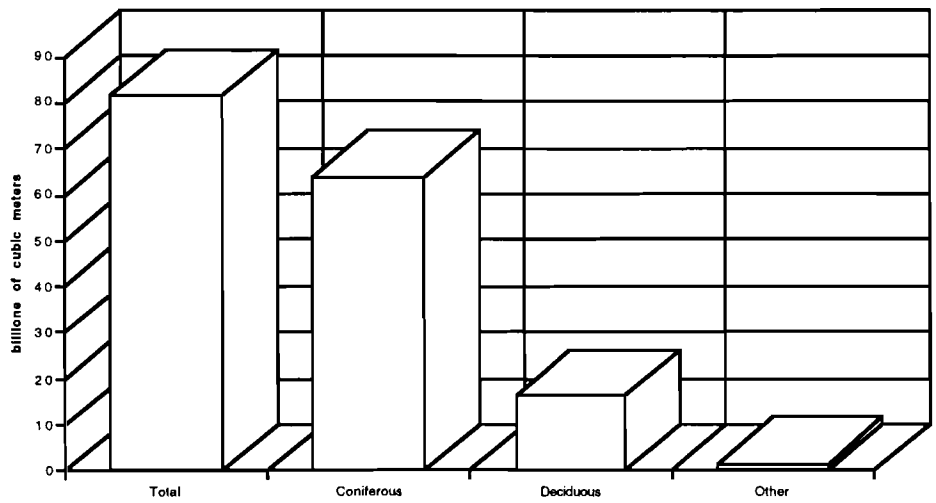
Source: Backman (1994b)

FIGURE 4.3: RUSSIA - Stocked forest land



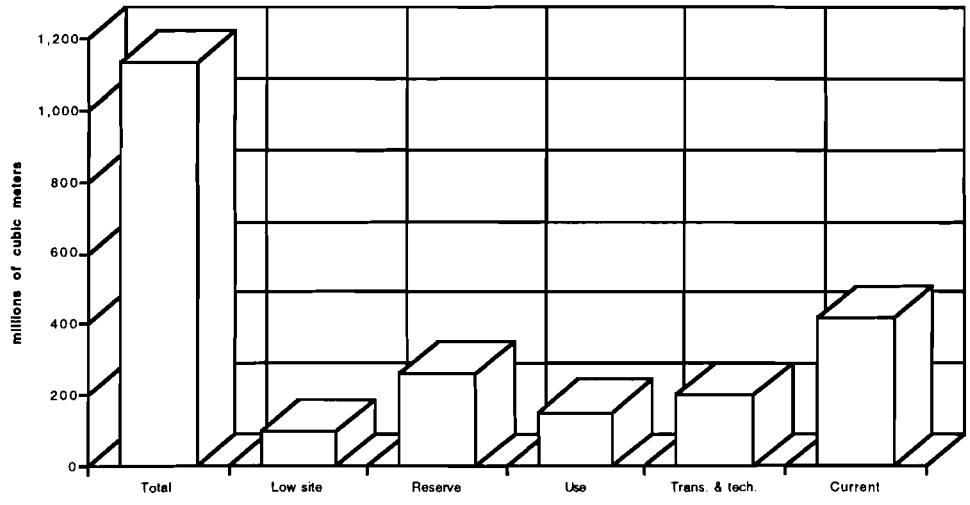
Source: Backman (1994b)

FIGURE 4.4: RUSSIA - Growing stock



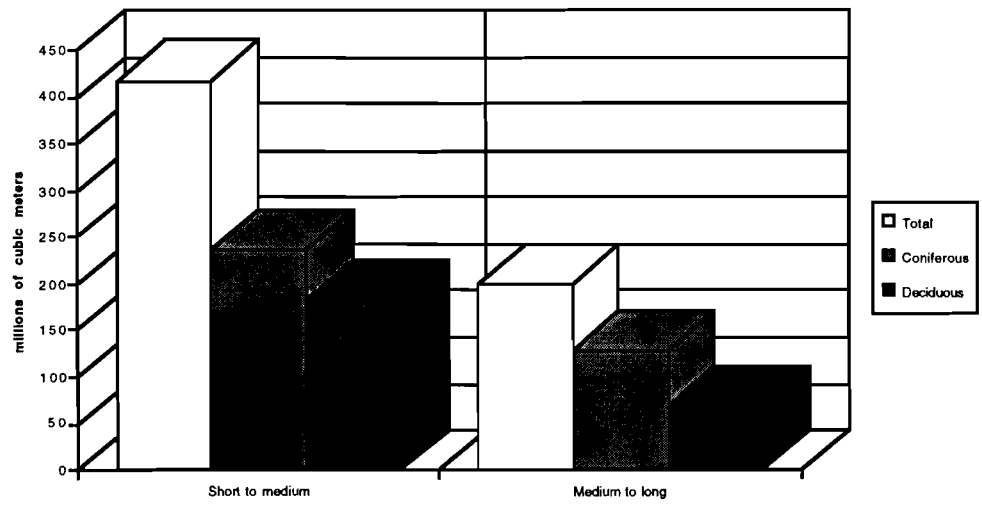
Source: Backman (1994b)

FIGURE 4.5: RUSSIA - Estimated annual growth of forest resources



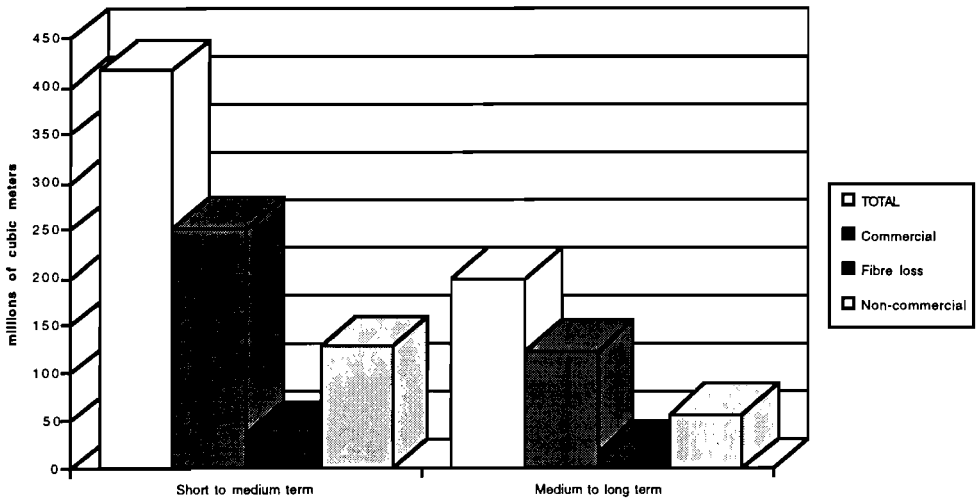
Source: C.A. Backman, Backman (1994b)

FIGURE 4.6: RUSSIA - Estimated maximum annual accessible fiber



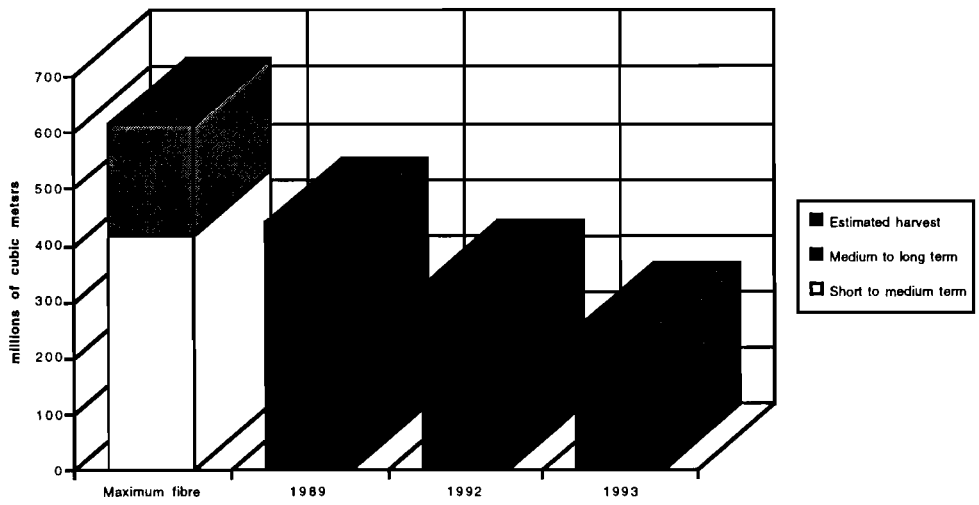
Source: Backman (1994b), C.A. Backman

FIGURE 4.7: RUSSIA - Estimated maximum annual accessible fiber by category



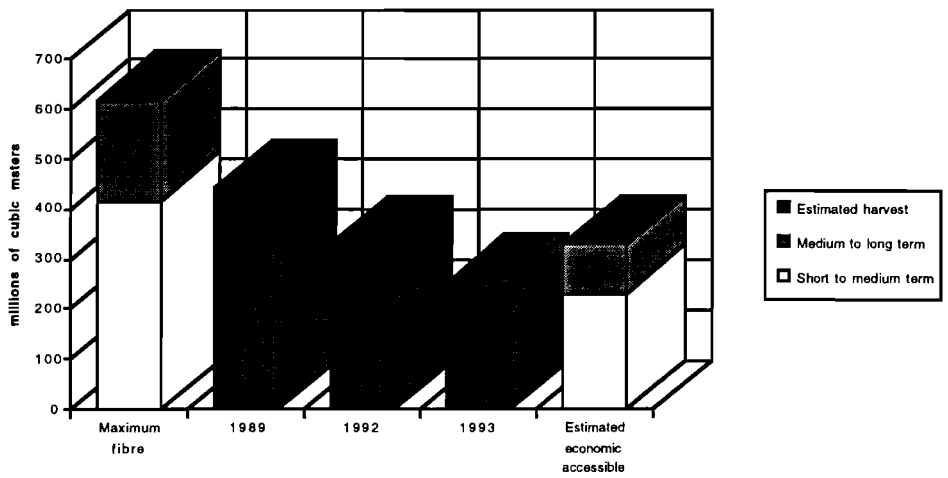
Source: Backman (1994b), C.A. Backman

FIGURE 4.8: RUSSIA - Estimated maximum annual accessible fiber and harvest



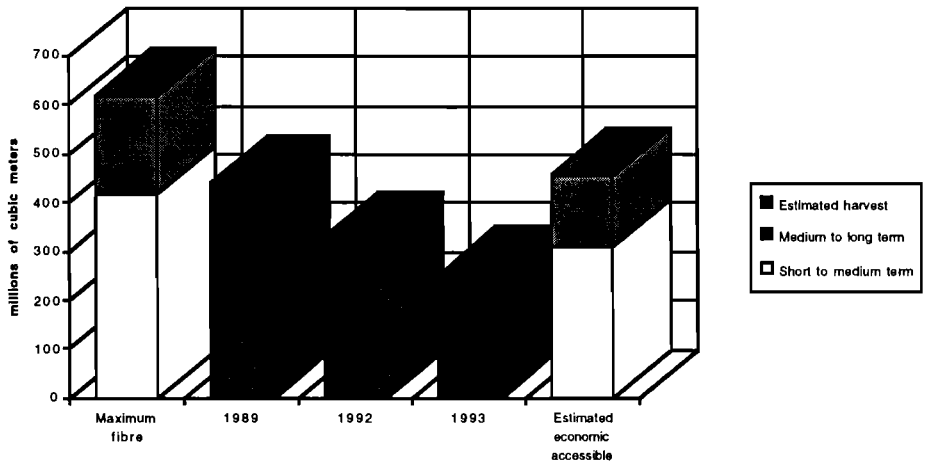
Source: Beckman (1994b), C.A. Backman

FIGURE 4.9: RUSSIA - Estimated maximum annual accessible fiber, actual harvest, and estimated economic harvest



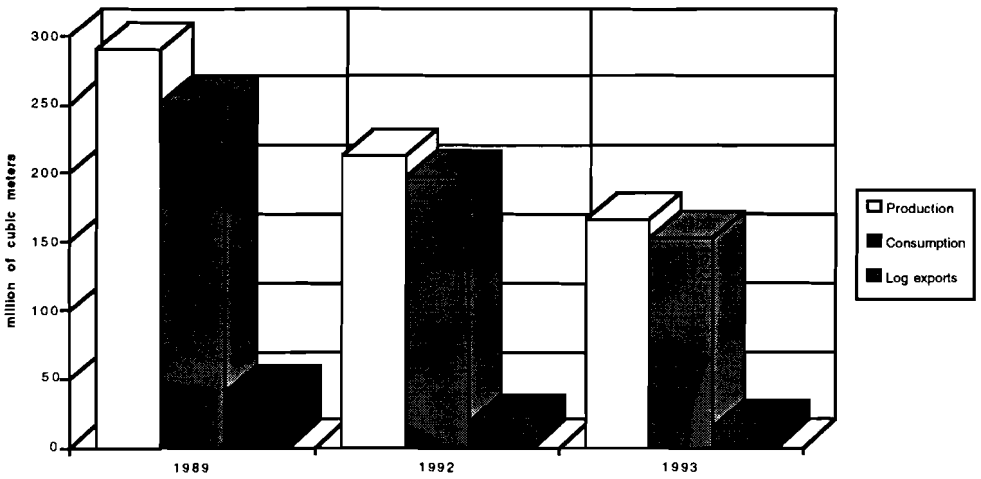
Source: Backman (1994b, 1995b), C.A. Backman

FIGURE 4.10: RUSSIA - Estimated maximum annual accessible fiber, actual harvest, and eatimated economic harvest



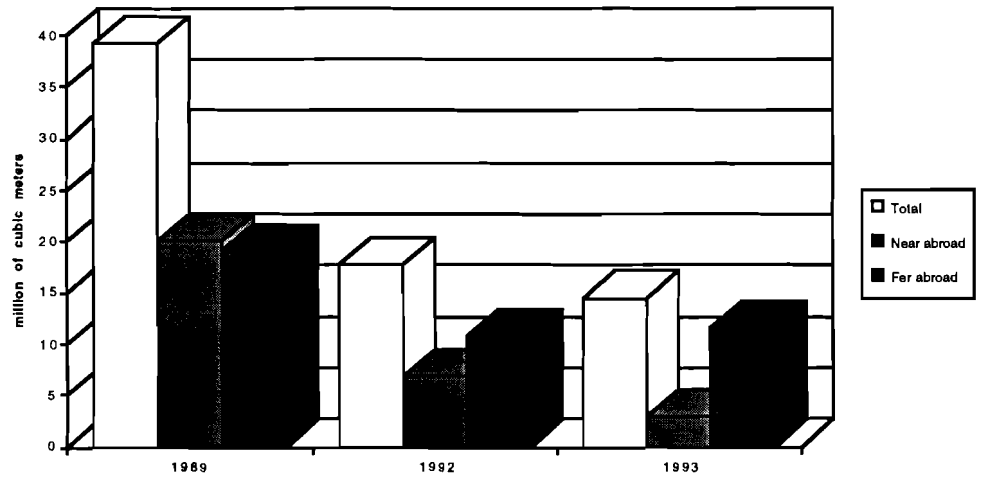
Source: Backman (1994b, 1995b), C.A. Backman

FIGURE 4.11: RUSSIA - Estimated commercial roundwood supply, share consumed domestically, and share exported



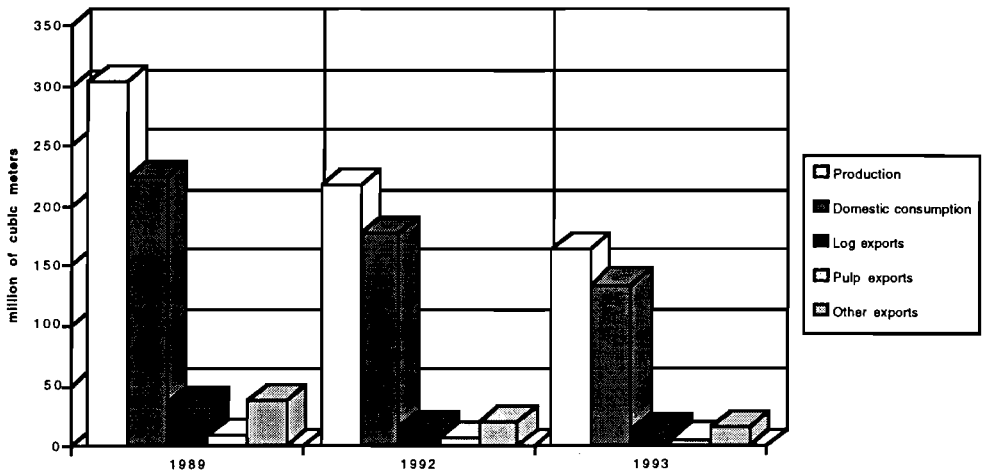
Source: Backman (1995b)

FIGURE 4.12: RUSSIA - Estimated commercial roundwood export, share consumed domestically, and share exported according to destination



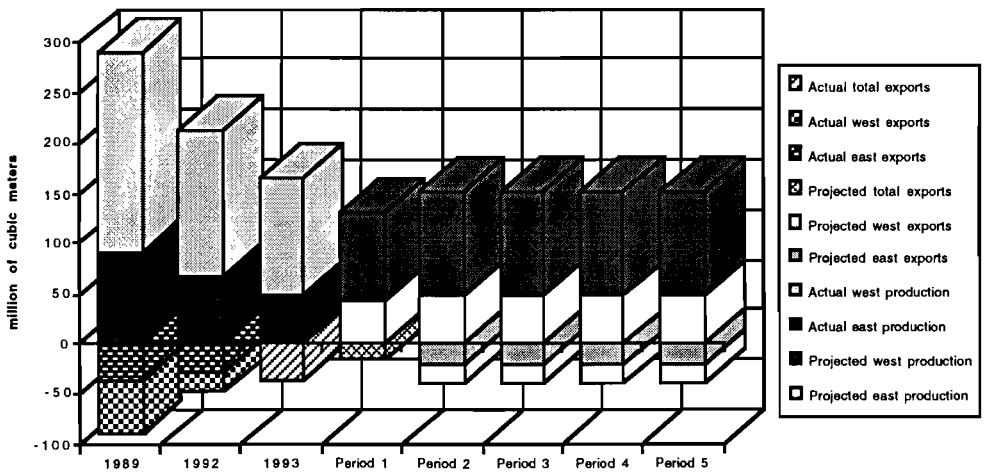
Source: Backman (1995b)

FIGURE 4.13: RUSSIA - Estimated fibre supply, share consumed domestically, and share exported according to product in fibre equivalents



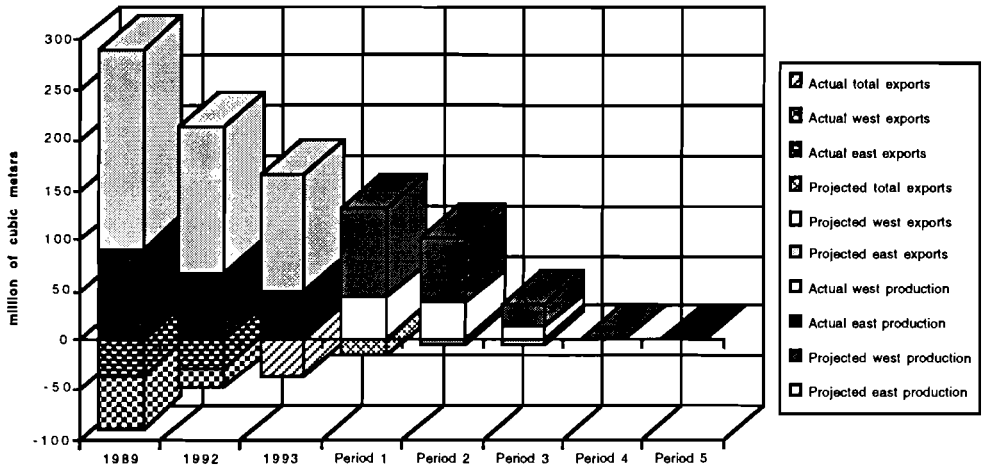
Source: Backman (1995b)

FIGURE 4.14: RUSSIA and REGIONS - BASE CASE - Actual and projected commercial harvest and export of fibre



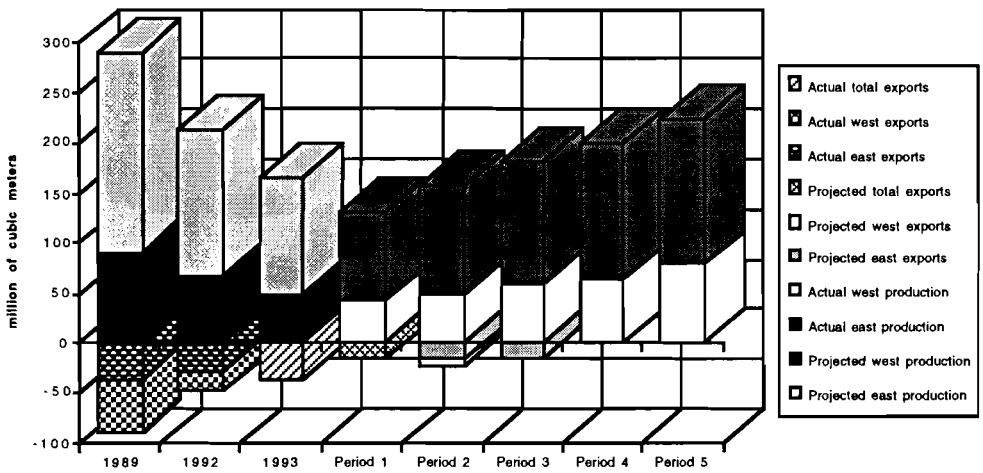
Source: Backman (1995b)

FIGURE 4.15: RUSSIA and REGIONS - SCENARIO 2 - Actual and projected commercial harvest and export of fibre



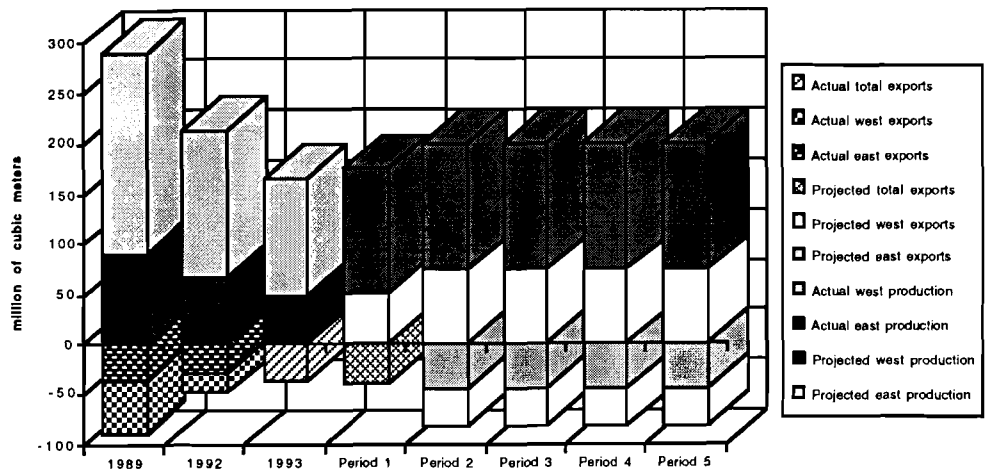
Source: Backman (1995b)

FIGURE 4.16: RUSSIA and REGIONS - SCENARIO 3 - Actual and projected commercial harvest and export of fibre



Source: Backman (1995b)

FIGURE 4.17: RUSSIA and REGIONS - SCENARIO 1 - Actual and projected commercial harvest and export of fibre



Source: Backman (1995b)

5.0 OPPORTUNITIES

The preceding chapter provided an appreciation of the opportunities presented by the forest sector while Chapter 3 emphasized some of the background environment which must be considered before embarking on a voyage to Russia. From these two chapters it can be seen that clearly opportunities exist.

To provide some structure within which to view opportunities, this chapter is divided into two major parts. The first part identifies opportunities which are generic to Russia and are not industry specific. The second part focuses on the opportunities evident in the forest sector.[71]

5.1 GENERIC

Many organizations see Russia as a potential market for their products and a base from which to export to world markets. However, that potential is kept in check by a number of factors which have conspired to raise the political risk which has been assigned to Russia. Russia, ranking only second to Iraq by The Economist, is viewed as a risky place to do business, increasing the thresh hold rate of return and decreasing the time period demanded before the initial capital invested must be repatriated.

Consequently, much can be accomplished if the perception of Russia as a risky place can be decreased in the eyes of the investor, foreign and domestic alike. This can be accomplished through a government that develops clear and well thought out action plans to deal with problems. The fundamentals of the market economy must be understood to avoid missteps and non-steps. Once policies have been determined by government, they must have a fair chance to be implemented. Therefore, government should have the ability to govern. Since democracy and the institutions and process supporting its operation are only recent arrivals

[71] However, despite the existence of these opportunities, their realization will depend on arranging adequate financing. The nascent state of the recovery in Russia would suggest that financial resources would be available for those activities which can demonstrate a more immediate return. Those opportunities which have benefits further into the future may need to be financed through sources other than those existing in Russia.

to Russia, "democracy" consultants can act as facilitators as Russia and its institutions follow their path towards their own version of democracy.

As the reform process continues, there are increasing opportunities for both foreign and domestic organizations and people to participate in the political, economic, and social development of Russia. The absence of a common understanding of the process by which a market economy and a democracy function from the Russian side, and the failure to appreciate the degree to which Russia is a relationship society built upon trust and unwritten understanding increases the chances for miscommunication, misunderstanding, and out right fraud. The code of conduct which forms part of the background environment which many participants from the West take for granted, is not present in Russia. The absence of a transparent code with which they are familiar and the existence of a Russian non-transparent code of behaviour does not inspire any degree of confidence in a dispute resolution process when treating foreigners in a balanced fashion viz-a-viz Russians. Thus, there is a need for a well thought out legal code which is both implementable and acceptable to all participants. While there are opportunities for consultants with skills in drafting the appropriate legislation and accompanying regulations with a view towards transparency, the converse is also true. Cultural interpreters who can place behaviour in both contexts can help to facilitate cementing of relationships among organizations from different countries and cultures which have a commercial incentive to do so.

As the assets of the Russian state are being distributed back to the Russian peoples and to foreign organizations, many questions arise concerning their valuation in a market economy. While much information exists concerning the performance of the organizations, this information often was derived under a completely different economic, social, and political paradigm.

Skills to establish their valuation under a market economy are not widely distributed among the Russian people. In order to broaden the appeal of Russia, mechanisms should be developed which can shed light on the degree to which accounting information generated by the former system can be employed to establish a realistic appraisal of the asset's value. Linked to this item is the broader question of information and the degree

to which it can be independently verified. Thus, there are opportunities for consultants and organizations which can perform the valuation of assets in terms of a market paradigm and those which can provide sufficient due diligence to give credibility to the appraisals.

5.2 Forest Sector

Opportunities to participate in a growing export trade are clearly evident from Chapter 4. Additionally, a rapidly rising domestic consumption level brought on by a successful contract among the difference participants in Russian society could lead to sharply higher prices on the domestic market. Constraints to supply exist which when encroach upon can translate into a price structure in the forest sector rising faster than in other parts of the economy. Consequently, prospects may not only be present for those firms willing to develop for the export market the forest resource and concomitant industrial capacity, but those companies prepared to invest with an eye to servicing the domestic market in the medium to long term.

While on a macro level the fundamentals seem to support investment in the forest sector, more micro oriented opportunities are presented below. They are discussed in terms of five sections: (1) informational; (2) forest resource; (3) forest utilization; (4) forest products trade; and (5) forest equipment manufacture.

5.2.1 Informational

Consistent with many other industrial sectors, there is a general absence of descriptive information providing a realistic picture of the current situation of the sector and what the likely prospects will be over the next decade or so. It is this lack of background knowledge which can form an initial barrier to companies having an interest to participate in the Russian forest sector. Thus, there are opportunities for purveyors of knowledge to prepare the fundamental reports which give structure to the overall industry and help investors place their opportunities in perspective.

The purveyors of information can consist of two types. First, there is the macro level which helps to establish the overall fundamentals of the

forest sector. Second, at the micro level are those companies or organizations which can perform due diligence assessing the prospects and opportunities of individual companies. In this category would most likely fall many of the foreign accounting firms and emerging Russian organizations with intimate familiarity of the sector.

5.2.2 Forest resource

There is a long-term need to establish a better framework for managing the forest resources of Russia in a more intensive manner. Included is a closer examination of the degree to which the ability of the forests to support a flow of fiber is realistically reflected in both allowable annual harvest including intermediate harvests.

Not only is this important from a long term fiber flow view point, but it is also from the view point of export markets, particularly in Europe. Growing concern over the appropriateness of forest management techniques is becoming a major concern of consumers of manufactured products. Failure to convince consumers of the responsible manner with which Russia approaches its stewardship of the land could have far reaching consequences, artificially diminishing export opportunities. Accordingly, there are opportunities for consultants who can convey to the Russian forest sector establishment the ingredients of a forest management regime which will be positively viewed by foreign consumers, including the mechanisms to present it.

Linked with the marketing strategy to convince foreigners of the soundness of Russian stewardship of the forest resources is the substance underlying it. Russia has a long and rich history linked with the forests and forest management. The absence of financial resources and a long period of isolation from outside influences has created an opportunity for exchange between outside and inside of Russia.

Intensive forest management is probably more common outside of Russia, including the degree to which computers have been incorporated into management paradigms. Additionally, the need to accommodate the diversified interests served by the forest resource has meant that the process of compromise and consensus are more a part of the

background environment which organizations outside bring to the negotiation table. Accordingly, expertise in handling the large volume of data connected with resource management through a computerized information system can be expected to be well received. Furthermore, the process of consensus building and the art of compromise, while not unknown in Russia, can benefit from the more tolerant regime which has evolved in the West. Thus, administrative structures which promote and support conflict resolution and consensus building should find a receptive ear.

5.2.3 Forest utilization

Connected with management practices of the forest resource are environmentally neutral manufacturing practices which do not contribute to degradation of the environment. Not only do consumers of forest products, particularly in Europe, have a growing sense of the importance of environmentally sound forest management practices, but the concern extends to the manufacturing process. Thus, the discharge of waste products generated during the manufacturing are an important consideration if Russia wishes to substitute increasingly manufactured products for the solid roundwood which now dominates the export of Russian forest products.

An historical preference for coniferous species and the general absence of a well defined manufacturing industry which could successfully utilize the deciduous resource has resulted in their under harvest. Increasing capacity to utilize the lower grade material could very well translate into larger opportunities for the sale and manufacture of equipment to produce wood chip material from the lower grade wood now left unutilized or consumed as firewood for heating purposes. These opportunities are amply evident in the Russian Far East where currently a shortage of wood material has dramatically increased the price of by-product chips. Furthermore, increasing utilization of the waste material left either at the setting in the forest or at the lower landing cannot help but improve the perception that Russian is managing its resource in an efficient and responsible manner.

5.2.4 Forest products trade

While a system of grading standards has emerged inside Russia to help in the allocation of the forest resource and manufactured products among the different end uses and consumers, the system has not necessarily conformed to those standards which have emerged in the international community. Furthermore, the degree to which standards employed in Russia reflect what is actually delivered also is an important consideration from the view point of consumer satisfaction.

Thus there are opportunities for development of the appropriate paradigm to translate the internal Russian grading system into a standard recognized in the international community as well as developing training programs and equipment which can permit the Russian manufacturer to extract the highest value product with consistent quality.

Under the former regime, trade was the responsibility of specialized trading organizations. The manufacturing and harvesting enterprises did not contain the necessary experience to market their products to either the domestic or the international market place. With the devolution of the centrally planned system, opportunities for the individual enterprises to deal more closely with actual consumers of their products have grown. The absence of marketing skills provides a window of opportunity for international organizations which can provide marketing services to enterprises inside Russia and opportunities to link into the international market place.

5.2.5 Forest equipment manufacture

Connected with the environmentally responsible manufacturing methods discussed earlier is the ability to produce products of quality lying above the minimum thresh hold value acceptable in the West. While trade in manufactured products accounted for a significant portion of the trade in products under the Soviet regime, much of the products exchanged with former members of the CMEA were of substandard quality which would not have met the expectations of consumers long accustomed to a higher quality standard. With much of the capital employed in the forest sector

of a standard not capable of meeting a world level, opportunities exist for participation in the re-equipping of the industry.

Thus, opportunities for fabricators of manufacturing equipment in all sectors of industry plus those manufacturers of pollution abatement equipment exist. Furthermore, producers of harvesting equipment that poses less of a hazard to the forest can find a receptive chord both in terms of increasing productivity on accessible forest sites and bringing into accessibility forest which hitherto has been inaccessible due to limitations of terrain. The introduction of more appropriate technology, in addition to bringing to accessibility a resource not considered available currently, will also contribute to building the perception that the Russian forests are being managed in a manner consistent with sustainable development principals.

While markets seem to exist for manufacturers of equipment outside of Russia to compete in the domestic market, there may also be significant opportunities for equipment manufacturers to invest in the manufacturing sector of Russia, particularly in the transformation of the defense industry of Russia. Providing engineering and product design, the foreign investor may be able to take advantage of the familiarity of the domestic market and a significantly lower cost base either to manufacture for the re-capitalization of the existing industry or as a base from which to market forest equipment to a global market place.

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