

UNCLASSIFIED

OVERSEAS PRIVATE INVESTMENT CORPORATION

WASHINGTON, D. C. 20527

DIRECT INVESTMENT FUND

Proposal and Recommendation for
Approval of the Investment Committee

PAKISTAN: CORNING GLASS PAKISTAN LIMITED

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Investment Committee Paper

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DIRECT INVESTMENT FUND

PAKISTAN: CORNING GLASS PAKISTAN LIMITED

1. SUMMARY

1.1 Company

Corning Glass Pakistan Limited ("Cornpak" or the "Company") is a Pakistani company owned 47.6% by Corning Glass Works ("Corning"), 48.9% by individual family members of a leading Pakistani industrial group (the "Fancy Group") and 3.5% by other Pakistani investors.

1.2 Project

The project is a \$3.25 million plant addition to expand production of the Company's basic product line of vials and ampoules sold primarily to the local pharmaceutical industry.

1.3 OPIC Participation

- A. A Direct Investment Fund loan of \$1,250,000.
- B. Investment Insurance covering Corning's new loan investment. of \$255,000.

1.4 Project Costs (\$000's)

	<u>Foreign Exchange Costs*</u>	<u>Local Costs</u>	<u>Total Costs</u>
Building	\$ -	\$ 150	\$ 150
Furnace & Equipment (CIF)	885	366	1, 251
Insurance, Duties, etc.	-	230	230
Engineering	190	15	205
Pre-production Expense	75	65	140
Subtotal	1, 150	826	1, 976
Interest during Construction	166	37	203
Working Capital	-	662	662
Contingency	242	173	415
Total Project Costs	\$1, 558	\$1, 698	\$3, 256

*Sourced \$1,255,000 U. S. and \$303,000 Europe including contingencies.

1.5 Financial Plan (\$000's)

	<u>Foreign Exchange Component</u>	<u>Local Component</u>	<u>Total Funding</u>
Debt			
Short-Term Loan (FNCB)(7%)	\$ -	\$ 225	\$ 225
Senior Funded Debt (52%)			
OPIC Loan	1,250	-	1,250
FNCB Term Loan	-	460	460
Subordinated Debt			
Shareholder Loans (16%)	<u>308</u>	<u>202</u>	<u>510</u>
Total Debt	1,558	887	2,445
Internal Cash Generation (25%)	-	811	<u>811</u>
Total Funding	<u>\$1,558</u>	<u>\$1,698</u>	<u>\$3,256</u>

1.6 OPIC Loan Terms

OPIC's senior DIF Loan of \$1,250,000, repayable semi-annually in 9 1/2 years including a two-year grace period, will carry an interest rate of 10% and to bring the yield to 10 1/2% will be subject to a \$30,000 processing fee.

1.7 Financial Summary

Projected net sales, net income and debt service coverage for the first five years of operation after the expansion is completed are as follows: (\$000's):

	<u>1975 (Actual)</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Net Sales	\$1165	\$2974	\$4080	\$4420	\$4762	\$4762
Net Income	\$ 277	\$ 325	\$ 448	\$ 537	\$ 587	\$ 581
Senior Debt Coverage	NA	3.88x	2.26x	2.53x	3.4x	4.58x
Total Debt Coverage	2.92x	2.49x	1.75x	1.94x	2.26x	2.5x
Interest Coverage	6.55x	3.77x	4.47x	5.56x	6.91x	8.1x

1.8 Status of the Project

Detailed engineering by Corning is near completion. There is sufficient space and utilities available at the existing site for the expansion. Application for government approvals and permits relating to the expansion was made on December 26, 1975. To obtain final clearance from the Government, the source and terms of the foreign exchange financing must be approved. Once final government approvals are obtained and the financing finalized, construction will take approximately 9 months.

1.9 Pakistan Economic and Social Development

On an incremental basis the expansion will create 176 new employee positions, generate net foreign exchange savings/earnings of \$1,755,000 annually, and result in additional excise duties and corporate income taxes of \$1,105,000 and \$1,838,000 respectively, over the first five years of operation.

1.10 U. S. Effects

Initial procurement of U. S. engineering, machinery and equipment will total \$1,039,500. On-going U. S. exports to the project will increase by \$50,000 annually as a result of the expansion.

1.11 Project Team

Frank R. Hill	Senior Manager Project Finance
Burton L. Bostwick	Investment Officer
Dennis Kelly	Financial Analyst
Felton M. Johnston	Insurance Director
Anthony Marra	Counsel
Thomas B. Clegg	Assistant to the Treasurer

2. RECOMMENDATION AND BASIS

2.1 Recommendation

It is recommended that a loan to the Company of \$1,250,000 be authorized from the Direct Investment Fund.

2.2 Basis for Recommendation

One of the poorest countries in the world, with 1974 per capita GNP of \$130, Pakistan has experienced little new foreign capital investment since 1969. This expansion, which is based on Corning's modern technology, represents a commitment on the part of a highly respected U. S. company to the future growth of Pakistan.

Since the accession of the present regime in 1971, Pakistan has undertaken a highly nationalistic posture towards foreign equity investments and loans for private enterprise. Large sectors of the local private sector were nationalized in 1971 in an effort to break up the oligopolistic control of the economy by a small group of Pakistani families. The attitude of the government towards private investment has moderated since that time, although it remains skeptical and ambivalent.

This will be the first OPIC dollar loan made in Pakistan. Following on our two recent local currency loans to U. S. affiliates in Pakistan, it may introduce a more positive attitude on the part of the GOP toward foreign investment and enhance the country's investment image abroad.

Since acquiring its interest in 1969, Corning has brought technological and management talent to bear to turn around what had been an unprofitable operation; the expansion will continue this trend and strengthen the Company's market position and ability to compete in an expanding market.

The possibility of an OPIC loan has been a primary determinant in the Company deciding to source expansion equipment from the U. S. instead of Europe.

OPIC has worked with the sponsors to insure that the project will be adequately capitalized, and the sponsors have agreed to provide new loans to the project which will be subordinated to the OPIC loan. The loan will be for an existing project with a history of successful operations sponsored by strong U. S. and local partners, and which has strong local development benefits. It merits OPIC financial support.

3. INTRODUCTION

Corning purchased 98.65% of the Company's stock from the original owners in 1969 at a time when the technical and financial condition of the

project was seriously impaired. In early 1970 Corning sent a team of five experts to Pakistan to work on both managerial and technical problems. Their assistance included development of a special glass formula based on a high percentage of indigenous raw materials in contrast to the earlier operations which imported almost all raw materials including sand. As a result the Company moved from a negative gross margin in 1970 to a 24% positive gross margin in 1971. The Indo-Pakistan war of 1971 and the loss of the large East Pakistan market interrupted sales and profitability growth for the Pakistan pharmaceutical sector including Cornpak. The Company returned to profitability in 1972, and with the exception of an operating loss of approximately \$35,000 in 1973, the Company has experienced substantial growth in sales and profits. By the end of 1975, sales were \$1,165,000 versus \$512,550 in 1972; and net profits were \$278,000 versus \$19,202 in 1972.

In 1972, realizing that the project could not continue to rely indefinitely on foreign ownership and management, Corning decided to look for a strong local management group as a partner. On April 15, 1972, Corning sold 239,700 of its shares in Cornpak to the Fancy Group, leaving Corning with a 47.65% interest. Since then Corning has continued to supply technical and financial assistance.

The Company has now grown to a point where a major expansion appears justified and will continue the turnaround to profitability and sales growth.

OPIC staff have worked very closely with the project sponsors since August 1975 to insure a reasonable and practical capitalization plan for the expansion project. OPIC's original review indicated that Cornpak was undercapitalized and the project sponsors have subsequently agreed to make loans of \$510,000 to the project which would be subordinated to the OPIC loan. Corning has also indicated that it would take an active part in seeking GOP approval for an OPIC loan on the terms proposed.

4. THE COMPANY

4.1 Principals

Corning is a leading U. S. manufacturer of glass products for the medical and electronics businesses, consumer products, and technical applications. It is considered a leader in glass and ceramic technology. Corning is No. 216 on the Fortune 500 list and had 1975 sales of \$939 million with net income of \$31.1 million.

Prior to the 1971 nationalizations the Fancy Group was one of the major industrial groups in Pakistan. The Fancy Group still owns substantial interests in Pakistan industries, and provides operational management assistance to Cornpak.

4.2 Board of Directors

The Board of Directors of Cornpak consists of nine directors. Four are nominated by Corning and five by the Fancy Group. The Chairman, Mr. Agla Hilay, a former Ambassador to the U. S., acts as a joint nominee working with both groups.

4.3 Operation and Management

Cornpak employs a veteran team of Pakistani nationals who have achieved significant operating results in the past several years. Corning no longer has a direct management function in Cornpak, but does exert considerable influence through the close liaison maintained with Corning's Asia-Pacific area office and its Engineering and Melting Technology Department in the U. S. Corning technical people visit Pakistan several times a year, and a Corning financial manager visits at least once a year. Fancy Group directors provide on-site monitoring and assistance as required. Corning and Fancy Group directors select and approve senior management personnel.

Mr. Vazir H. Quraishi is the Managing Director and General Manager of Cornpak. With 17 years of industrial experience and graduate training in the U.K., he is held in high regard by Corning management and is generally given credit for the excellent operating results of Cornpak in the last two years.

Mr. Abdus Salam is the Plant Manager, having served in that capacity since the end of 1972. He has 15 years industrial experience, five with Cornpak.

4.4 Labor Force

The labor force, including management personnel, is entirely Pakistani and presently numbers 372. The expansion will result in new employment for 176 Pakistanis, 125 in the semi-skilled and unskilled categories, and 51 in skilled and administrative positions. Cornpak is required by law to pay one month's wages or salary as a bonus every year. There is also a compulsory contribution to social security amounting to 6% of wages and salaries as well as worker's participation in profits

at 6% of the net profit before tax.

Cornpak's employees are represented by an employees union. The Company negotiates an agreement every two years with the union with respect to wages, benefits, or welfare. Cornpak expects to sign a new agreement in July for another two years.

5. GOVERNMENT APPROVALS AND INCENTIVES

As an existing Company, Cornpak does not require any additional operating approvals and licenses from the Government but the expansion does require the concurrence of the Department of Investment Promotion and Supplies and the Ministry of Finance, both as to the increase in capacity and the financial plan (including the OPIC loan). The project will enjoy no new benefits or exemptions as a result of the expansion, although the Company is entitled to a 25% initial depreciation allowance on expansion assets in the first year of operation.

Corning and OPIC both realize that GOP approval of the OPIC loan terms will not be automatic. In spite of this Corning is willing to proceed with the application and support OPIC's loan terms because of its optimism for the project's future in Pakistan. OPIC Finance believes it is worth the effort to work with the GOP to support such a worthwhile project and make our first DIF loan in Pakistan.

6. TECHNICAL ANALYSIS

6.1 Plant and Equipment

The present plant is located in Karachi, Pakistan. The expansion facilities will be located within the present plant site boundaries. The new furnace and associated plant will be designed to produce 6.5 metric tons/day of "USP III soda lime tubing" suitable for pharmaceutical glass.

Major procurement items include \$48,500 for the "batch" (mixing) house, \$342,000 for the new "tank" (glass furnace), \$88,000 for the "firehearth," \$150,000 for the "tube draw," \$457,200 for finishing equipment, and \$25,000 for a standby generator. Over 80% of the procurement will be from the United States.

6.2 Process

The Company's basic raw materials are soda ash and silica sand, both available locally. These materials are mixed with various imported

glass-process chemicals into a "batch." The batch is then loaded into a gas-fired glass melting furnace. Glass in a molten state is discharged from the furnace through a tube forming process. Tubes are converted by various mechanical and heat treating steps into vials and ampoules. Ampoules are hermetically sealed glass vessels used for injectables; vials are open-ended glass containers which can be stoppered to hold sterile water, medicine or chemicals.

The most critical element in producing a quality product is the raw material and chemical mix in the batch. Prior to Corning's investment in 1969, the project was unable to produce a quality product consistently, even with high quality and modern machines. Application of Corning's world-standard technology to the project has had a dual benefit: (i) the project now produces international standard quality glass on a consistent basis; and (ii) the project now uses 80% indigenous raw materials whereas previously even sand was imported.

In the manufacturing process, the furnace step and tube-drawing and cutting step are equally critical. Due to the extremely high heat generated by the furnace, it must be constantly monitored and carefully maintained. Replacement occurs about every five years, and a special furnace reserve is carried on the Company's books. A standby generator must be kept available at all times so that a furnace "freeze" does not occur in the event of a power failure. Efficient tube-drawing from the furnace requires delicate and expert handling to prevent excessive breakage. Also, if the glass does not have the proper chemical composition and tensile strength, it will break of its own weight.

6.3 Construction and Procurement

The cost estimates for the glass furnace, batch house, and tube draw were prepared for the project by the Melting Technology and Engineering Department at Corning Glass Works in late 1975. The cost of finishing machines was estimated by Cornpak personnel from quotations by manufacturers. Cornpak has prepared a detailed schedule of all expenditures relating to expansion costs and has included a 10% contingency in the financial plan for cost escalations.

The basic design, layout and technical engineering for the expansion has been prepared by Corning. Actual implementation of the expansion will be accomplished by Pakistani engineers, supervised by Cornpak's plant manager and with the technical guidance and review by Corning.

6.4 Raw Materials and Utilities

Indigenous raw materials such as soda ash and silica sand are readily available and constitute 80% or more of the basic glass batch. The balance represents specialty chemicals imported from various sources including the U. S., Taiwan and Turkey.

Primary utilities are electricity, natural gas, liquid oxygen and water, all of which are available from local sources in sufficient amounts to cover the needs of the expansion project.

6.5 Environmental Considerations

The manufacturing process uses natural gas for fuel and produces no toxic by-products or gases. Waste product from the process is used as fill material for low lying ground within the factory premises.

7. THE MARKET

Cornpak production currently serves the pharmaceutical industry in Pakistan almost exclusively. There are about 120 pharmaceutical manufacturing units of which 35 are multinationals and Cornpak's major customers. Vial and ampoule requirements for the pharmaceutical industry in Pakistan are projected to grow at an annual average growth rate of 13% for the period 1974-1980. This estimate was based on several recent interviews with the major pharmaceutical producers by Corning and Cornpak personnel. Cornpak intends to not only participate in this growth, but to increase its market share of the major product lines. Cornpak's production volume and average prices for 1973-1975 are shown below:

	<u>1973</u>	<u>1974</u>	<u>1975</u>
Volume (million pieces)			
Vials	34.5	33.4	30.7
Ampoules	56.8	78.9	88.2
Avg. Price/1000 pieces			
Vials	\$12.95	\$15.40	\$16.90
Ampoules	\$ 5.75	\$ 6.80	\$ 7.70

Cornpak has divided its product line by quality and volume items and attempts to maintain a dominant position in quality lines while retaining sufficient volume in volume items to cover operating costs. The Company

anticipates increasing its market share in higher gross margin products during the expansion phase in 1976 and 1977 and temporarily giving up some of the market in the lower margin products. When new capacity starts up in 1978 the Company anticipates a strong comeback in all sectors of the market and plans to begin exporting tubing to Turkey, Iran and Bangladesh. Turkey and Iran have no domestic capacity for tube manufacture and now import from Europe, which Cornpak hopes to replace. The Company produces tubing as the first step of the vial/ampoule manufacturing process.

7.2 Supply and Demand

Demand in Pakistan for the Company's products is based on the expected rate of growth of the requirements of the pharmaceutical industry in Pakistan. The following tables, developed by Cornpak personnel, and confirmed by Corning personnel and an independent Pakistani consulting group, are based on the stated requirements of the major pharmaceutical producers in Pakistan (million pieces):

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1981</u>
	<u>Demand</u>			
Vials				
USP III	103	114	125	130
USP I Clear	6	7	8	10
USP I Amber	19	23	27	35
Total	<u>128</u>	<u>144</u>	<u>160</u>	<u>175</u>
Ampoules				
USP III	80	90	106	106
USP I Clear	7	9	10	13
USP I Amber	23	26	30	38
Total	<u>110</u>	<u>125</u>	<u>146</u>	<u>157</u>

Projected vial/ampoule manufacturing capacity in million pieces in Pakistan is:

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1981</u>
Vials				
Cornpak	35	35	110	118
Other Manufacturers	45	45	45	45
Total	<u>80</u>	<u>80</u>	<u>155</u>	<u>163</u>
Ampoules				
Cornpak	88	88	150	150
Other Manufacturers	12	12	12	12
Total	<u>100</u>	<u>100</u>	<u>162</u>	<u>162</u>

Corning intends to utilize any excess capacity to serve the export market.

7.3 Competition

Cornpak's 1975 share of the market and that of its competition is listed below:

	<u>Cornpak</u>	<u>Other Domestic</u>	<u>Imports</u>
<u>Vials</u>			
USP III	26%	62%	12%
USP I Clear	4	-	96
USP I Amber	36	10	54
<u>Ampoules</u>			
USP III	100	-	-
USP I Clear	-	30	70
USP I Amber	60	15	25

The major domestic competitors are Prince Glass, Muhammadi and Glaxo. Cornpak believes it has or will have significant competitive advantages (better equipment, Corning technology and consistent quality) vis-a-vis these companies and will be able to improve its market share significantly by 1981. In order to achieve the market share it has projected, Cornpak will have to consummate its agreement with Glaxo, a U.K. firm. Glaxo is a producer of pharmaceuticals which has also been in the vial manufacturing business to fill its internal requirements and to sell to other pharmaceutical producers. After 1974, when the Company began production of USP I vials, Glaxo's share of the market rapidly deteriorated and they have been left with a substantial amount of unsold inventory. They are willing to sell this inventory to Cornpak, as well as its vial-making machinery, and go out of the business. Cornpak expects to be able to supply Glaxo's internal requirements after 1977. This represents 20% of the total projected demand for USP III vials in 1978. USP III vials are the Company's largest production item.

Foreign competition comes from Hungary in vials, and Turkey in ampoules. Cornpak states that prices for imports have been rising and they believe they can compete effectively against them.

7.4 Distribution and Pricing

The majority of Cornpak's sales are made to companies in the Karachi area with Lahore the largest secondary market. The Company sells and ships directly to its customers in Karachi and Lahore and does not use the services of a distributor. It plans to continue with this

system, although it is considering opening a branch office in Lahore with a storage facility. For exports, Cornpak will appoint agents in Iran, Turkey and Bangladesh.

Cornpak states that their current prices are competitive with the landed cost of imported products. However, for their second largest revenue earner (USP III vials), their major competition comes from local producers. Therefore, Cornpak's prices must reflect that of local competition, at least for that product line. In spite of competition from local and imported products, Cornpak has been able to increase prices on ampoules an average of 15% and on vials an average of 17% over the last few years and expects this trend to continue.

8. U. S. AND HOST COUNTRY EFFECTS

8.1 U. S. Effects

The net incremental effect of the project expansion on the U. S. balance of payments for the first five years of operation is forecasted to be a positive \$3,214,391 consisting of (i) \$1,289,500 of direct U. S. exports, (ii) \$2,027,000 of indirect U. S. exports, and (iii) a \$101,609 negative financial outflow.

The annual average U. S. employment derived from the total U. S. exports is 16 man-years (See Exhibit A).

8.2 Pakistan Effects

The expansion phase of the project, in addition to having a strong import substitution effect, will for the first time produce tubing for export. The net effect of foreign exchange savings/earnings amounts to \$1,755,000 annually. As a country with chronic trade deficit (\$118 million in 1974-75) problems, the positive balance of payments effect of this project will be welcomed.

The project will be paying substantial incremental income taxes (\$1,838,000) and excise taxes (\$1,105,000) over the first five years of expansion operations. Local employment will be increased by 176 new jobs, 51 in skilled and administrative positions. Per capita GNP in Pakistan is \$130.

A less tangible but nevertheless important benefit to Pakistan comes from the operation and expansion of a project in Pakistan by an internationally recognized U. S. company, connoting faith in the future growth and stability of Pakistan at a time when there is a paucity of new foreign investment in Pakistan.

9. FINANCIAL ANALYSIS

9.1 Project Costs

\$1,976,000 of the \$3,256,000 total project costs represent fixed asset additions and associated engineering costs. The balance of \$1,280,000 (39%) represents working capital (20%), interest during construction (6%), and contingency funds (13%). Engineering and installation costs are based on current quotations from firms in Pakistan and Corning. Cost estimates for \$478,500 of the fixed assets (30%) have been prepared by the Melting Technology and Engineering Department of Corning who feel they are "fixed." The balance of equipment costs are based on manufacturers' quotations.

9.2 Pro Forma Capitalization (\$000's)

	<u>Current</u>	<u>Expansion</u>	<u>Pro Forma</u>
Senior Debt			
OPIC	-	\$1,250	\$1,250
Citibank Medium Term	-	460	460
Citibank Short Term	-	225	225
Total Senior	-	<u>1,935</u>	<u>1,935 (50%)</u>
Subordinated Debt			
Shareholder Loans	468	510	978 (25%)
Net Worth			
Paid In Equity	473	-	473
Retained Earnings	89	401*	490
Sub-Total	<u>562</u>	<u>401</u>	<u>963 (25%)</u>
Total Subordinated Debt and Net Worth	<u>1,030</u>	<u>911</u>	<u>1,941 (50%)</u>
Total Capitalization	<u>\$1,030</u>	<u>\$2,846*</u>	<u>\$3,876</u>

* Difference between retained earnings of \$401K and internal cash generation of \$811K in Sec. 1.5 is the result of non-cash charges to income.

9.3 Basis for Projections

In addition to normal growth of the pharmaceutical industry in Pakistan and three surveys of the market (the most recent completed on March 29, 1976), Cornpak is justifying its expansion on two major factors: (i) that it will favorably conclude negotiations with a local producer (Glaxo) to buy out their capacity and begin supplying their needs in 1978; and (ii) replacement of a sizeable portion of Pfizer's imported requirements which cannot presently be met because of Cornpak's capacity limitations. Addition of these two customers will increase triple Cornpak's production of USP III vials, its largest volume product. Cornpak, Corning, and a Pakistani consulting group have each independently interviewed the majority of local customers to ascertain their requirements and to discuss their individual growth rate projections.

Prices are projected to increase by 7% a year through 1981, using 1975 as the base year. Cost of goods sold are projected to increase by an equivalent percentage over the same period. Subsequent to 1981 (capacity operation) both prices and costs remain level for forecasting purposes. Prices and costs are derived from Cornpak's historical experience in Pakistan and its best estimate of future market conditions.

9.4 Financial Soundness

The pro forma capitalization of the Company reflects senior lenders providing 50% of capital with shareholders' subordinated loans amounting to another 25%. The financial structure of the project would have been enhanced by an infusion of equity, and this was discussed with the project sponsors. The sponsors, while willing to be financially at risk in the project concluded that a new equity infusion would require too much time to get approval of the GOP, would incur additional costs, and might result in the GOP requiring a dilution of present ownership through a public offering.

During the first five years of operation, debt service coverage for senior debt (OPIC and FNCB term loan) averages 3.33 times. Debt service for senior loans and shareholder loans averages 2.19 times. Interest coverage on all loans averages 5.76 times. Shareholder loans of \$510,000 will be subordinated to the OPIC loan, and will have a grace period and maturity two years longer than the OPIC loan.

9.5 Loan Terms

Amount: Up to \$1,250,000 U. S. dollars.

Maturity: 15 equal semi-annual installments beginning after a 2-year grace period.

Interest: 10% per annum, payable semi-annually.

Fees: Processing fee of \$30,000 payable at closing.
Commitment fee of 3/4 of 1% on undisbursed balance.

Security: First lien on all existing and expansion fixed assets.

Overrun: Joint and several commitment by the shareholders, including any shortfall in the internal cash generation of \$811,000.

Other: Dividend test, negative covenants, etc., appropriate to the project.

9.6 Sensitivity Analysis

Based on the 1979 full operating year which is also the year in which debt service is the highest, the project shows only moderate sensitivity to a decline in prices or volume. A five percent decline in the average sales price at capacity operation produces an eighteen percent decline in net profits. Net profit breakeven occurs with a 27.8% decline in prices; debt service breakeven occurs with a 29% decline. Volume breakeven is less sensitive. 5% decline in production results in a 13% decline in net profit. Net profit breakeven occurs at 62.5% of capacity; debt service breakeven at 59.5%.

Exhibit A

U. S. EFFECTS ANALYSIS 1978 - 1982

A.	<u>U. S. Export Effect</u>	
	Initial U. S. Procurement	\$1,039,500
	Annual Production Inputs	250,000
	Less: Exports Displaced	-
	Net U. S. Direct Exports	<u>\$1,289,500</u>
	Indirect U. S. Exports	<u>\$2,027,000</u>
	Total U. S. Exports	<u><u>\$3,316,500</u></u>
B.	<u>U. S. Imports from Project</u>	-
C.	<u>U. S. Financial Flows</u>	
	<u>Outflows</u>	
	OPIC Loan	\$1,250,000
	Corning Loan	\$ 255,000
	Total Outflows	<u>\$1,505,000</u>
	<u>Return Flows</u>	
	OPIC Principal and Interest	\$1,183,000
	Corning Principal and Interest	\$ 220,391
	Dividends (none assumed)	-
	Total Return Flow	<u>\$1,403,391</u>
	Net U. S. Financial Flow	<u><u>\$(101,609)</u></u>
D.	<u>Summary U. S. Balance of Payments</u>	
	Export Effects	\$3,316,000
	Import Effects	-
	Net Financial Flows	<u>(101,609)</u>
	Total Effect	<u><u>\$3,214,391</u></u>
E.	<u>Equivalent Average Annual Man-Years of U. S. Employment</u>	16 years

Actual and Projected Income Statements 1974-1985
(000)

	Actual		Projected										
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
Net Sales	\$1015	\$1168	\$1527	\$1634	\$2974	\$4080	\$4420	\$4762	\$4762	\$4762	\$4762	\$4762	\$4762
Cost of Sales	542	706	899	971	1704	2311	2500	2692	2692	2692	2692	2692	2692
Gross Profit	473	462	628	663	1270	1769	1920	2070	2070	2070	2070	2070	2070
Expenses													
Selling, G&A	59	64	77	85	113	119	125	131	137	145	151	159	167
Depreciation	34	37	56	51	259	232	210	188	170	153	137	124	112
Interest	83	66	73	169	298	275	215	184	172	106	79	51	24
Total Expenses	176	167	206	305	670	626	550	503	479	404	367	334	303
Pre-Tax Earnings	297	295	422	358	600	1143	1370	1567	1591	1666	1703	1736	1767
Less:													
Workers Profit Participation (6%)	15	15	21	21	36	69	82	94	95	100	102	104	106
Income Tax (62%)	-	-	145	209	350	666	798	913	927	971	993	1012	1030
Tax Credit	-	-	-	(209)	(111)	(40)	(48)	(28)	(13)	(1)	7	12	16
Total:	15	15	166	21	275	695	832	979	1009	1070	1102	1128	1152
Net Income	\$ 282	\$ 280	\$ 256	\$ 337	\$ 325	\$ 448	\$ 537	\$ 588	\$ 581	\$ 596	\$ 601	\$ 608	\$ 615

CORNING GLASS PAKISTAN LTD.

Exhibit C

ACTUAL AND PROJECTED BALANCE SHEETS 1974 - 1986
(000)

	Actual		Projected										
	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
ASSETS													
Cash	\$ 33	\$ 12	\$ 152	\$ 15	\$ 340	\$ 813	\$1106	\$1404	\$1834	\$2538	\$3237	\$3152	\$3925
Receivables	137	246	212	228	393	519	558	598	598	598	598	598	598
Inventory	442	423	478	511	981	1271	1355	1440	1430	1422	1414	1408	1402
Total Current Assets	612	681	842	754	1714	2603	3019	3442	3862	4558	5249	5158	5925
Plant & Equipment	719	947	1085	3678	3678	3678	3906	3906	3906	3906	3906	3906	3906
Less: Accum. Depreciation	(277)	(314)	(370)	(421)	(680)	(912)	(1122)	(1310)	(1480)	(1633)	(1770)	(1894)	(2006)
Total Fixed Assets	442	633	715	3257	2998	2766	2784	2596	2426	2273	2136	2012	1900
TOTAL ASSETS	<u>\$1054</u>	<u>\$1314</u>	<u>\$1557</u>	<u>\$4011</u>	<u>\$4712</u>	<u>\$5369</u>	<u>\$5803</u>	<u>\$6038</u>	<u>\$6288</u>	<u>\$6831</u>	<u>\$7385</u>	<u>\$7170</u>	<u>\$7825</u>
LIABILITIES & NET WORTH													
Accounts Payable	\$ 483	336	360	236	616	1181	1352	1570	1628	1664	1695	1722	1716
Bank Overdraft Loan	62	127	-	250	225	79	-	290	-	-	-	-	-
Current Portion L/T Debt	-	-	-	-	167	167	167	167	167	167	167	83	-
OPIC Loan	-	-	-	77	153	153	76	-	-	-	-	-	-
FNCB Loan	82	23	62	62	62	62	62	62	53	39	4	-	-
Shareholders' Existing Loan	-	-	-	-	-	-	36	73	73	73	73	73	73
Shareholders' Sub. Loan	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	627	486	422	625	1223	1642	1693	2162	1921	1943	1939	1878	1789
OPIC Loan	-	-	-	1250	1083	916	749	582	416	250	83	-	-
FNCB Loan	-	-	-	383	230	76	-	-	-	-	-	-	-
Shareholders' Existing Loan	351	423	406	344	282	220	158	96	43	4	-	-	-
Shareholders' Sub. Loan	-	-	-	510	510	510	474	401	328	256	182	109	36
Total L/T Liabilities	351	423	406	2847	2105	1722	1381	1079	787	510	265	109	36
Furnace Reserve	50	99	167	-	160	333	520	-	202	404	606	-	202
Capital Stock	473	473	473	473	473	473	473	473	473	473	473	473	473
Retained Earnings	(447)	(167)	89	426	751	1199	1736	2324	2905	3501	4102	4910	5325
Total Net Worth	26	306	562	899	1224	1672	2209	2797	3378	3974	4575	5183	5798
TOTAL LIABILITIES & NET WORTH	<u>\$1054</u>	<u>\$1314</u>	<u>\$1557</u>	<u>\$4011</u>	<u>\$4712</u>	<u>\$5369</u>	<u>\$5803</u>	<u>\$6038</u>	<u>\$6288</u>	<u>\$6831</u>	<u>\$7385</u>	<u>\$7170</u>	<u>\$7825</u>

CORNING GLASS PAKISTAN LTD.

Exhibit D

Provision and Application of Funds 1975-1986
(000)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
PROVISION OF FUNDS												
From Operations												
Net Income	\$ 280	\$ 256	\$ 337	\$ 325	\$ 448	\$ 537	\$ 588	\$ 581	\$ 596	\$ 601	\$ 608	\$ 615
Depreciation	37	56	51	259	232	210	188	170	153	137	124	112
Furnace Reserve	49	68	73	160	173	187	202	202	202	202	202	202
Total From Operations	366	380	461	744	853	934	978	953	951	940	934	929
Increase in Debt												
Bank Overdraft Loan	65	-	250	-	-	-	290	-	-	-	-	-
OPIC Loan	-	-	1250	-	-	-	-	-	-	-	-	-
FNCB Loan	-	-	460	-	-	-	-	-	-	-	-	-
Shareholder's Existing Loan	95	45	-	-	-	-	-	-	-	-	-	-
Shareholder's Sub. Loan	-	-	510	-	-	-	-	-	-	-	-	-
Total Increase in Debt	160	45	2470	-	-	-	290	-	-	-	-	-
TOTAL PROVISION OF FUNDS	526	425	2931	744	853	934	1268	953	951	940	934	929
APPLICATION OF FUNDS												
Net Change Non-Cash W/C	237	(3)	173	255	(149)	(48)	(93)	(68)	(44)	(39)	(33)	-
Increase in Plant & Equipment	228	138	2593	-	-	228	-	-	-	-	-	-
Decrease in Furnace Reserve	-	-	240	-	-	-	722	-	-	-	808	-
Debt Repayment												
Bank Overdraft	-	127	-	25	146	79	-	290	-	-	-	-
OPIC Loan	-	-	-	-	167	167	167	167	167	167	167	83
FNCB Loan	-	-	-	77	153	153	76	-	-	-	-	-
Shareholder Existing Loan	82	23	62	62	62	62	62	62	53	39	4	-
Shareholder Sub. Loan	-	-	-	-	-	36	36	73	73	73	73	73
Total Debt Repayment	82	150	62	164	528	461	341	592	293	279	244	156
TOTAL APPLICATION OF FUNDS	547	285	3068	419	379	641	970	524	249	240	1019	156
NET CASH FLOW	\$ (21)	\$ 140	\$ (137)	\$ 32.5	\$ 474	\$ 293	\$ 298	\$ 429	\$ 703	\$ 700	\$ (85)	\$ 773
BEGINNING CASH	\$ 33	\$ 12	\$ 152	\$ 15	\$ 340	\$ 813	\$ 1106	\$ 1404	\$ 1834	\$ 2538	\$ 3237	\$ 3152
NET CASH FLOW	(21)	140	(137)	325	474	293	298	429	703	700	(85)	773
ENDING CASH	\$ 12	\$ 152	\$ 15	\$ 340	\$ 813	\$ 1106	\$ 1404	\$ 1834	\$ 2538	\$ 3237	\$ 3152	\$ 3925

CORNING PAKISTAN LTD.

Exhibit E

DEBT SERVICE CALCULATIONS

(U.S. \$000)

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
I. CASH AVAILABLE										
Earnings after Tax	357	325.3	448.3	537.3	587.6	581.3	595.9	601.1	607.9	615
Deprec. & Amort.	127	419	405	397	390	372	355	339	326	314
Interest	<u>153.9</u>	<u>268.8</u>	<u>245.7</u>	<u>205.1</u>	<u>165.5</u>	<u>134.3</u>	<u>106.4</u>	<u>79.4</u>	<u>51.5</u>	<u>24.6</u>
Total	614.9	1013.1	1099	1139.4	1143.1	1087.6	1057.3	1019.5	985.4	953.6
II. DEBT SERVICE										
Senior Debt										
Interest	92.4	184.8	165.7	129.1	92.5	70.8	54.2	37.5	20.8	4.2
Principal	-	<u>76.6</u>	<u>320</u>	<u>320</u>	<u>243.3</u>	<u>166.6</u>	<u>166.6</u>	<u>166.6</u>	<u>166.6</u>	<u>83.3</u>
Sub-Total	92.4	261.4	485.7	449.7	335.8	237.4	220.8	204.1	187.4	87.5
Shareholder Loans										
Interest	61.5	84	80	76	73	63.5	52.2	41.9	30.7	20.4
Principal	<u>62</u>	<u>62</u>	<u>62</u>	<u>62</u>	<u>98</u>	<u>135</u>	<u>126</u>	<u>112</u>	<u>77</u>	<u>73</u>
Sub-Total	123.5	146	142	138	171	198.5	178.2	153.9	107.7	93.4
Total Term Debt Service	215.9	407.4	627.7	587.7	506.8	435.9	399	358	295.1	180.9
III. DEBT SERVICE COVERAGE										
A. Senior Debt	6.65x	3.88x	2.26x	2.53x*	3.40x	4.58x	4.79x	5.00x	5.26x	10.90x
B. All Term Debt	2.85x	2.49x	1.75x	1.94x	2.26x	2.5x	2.65x	2.85x	3.34x	5.27x
C. Interest Coverage (All Debt)	4.00x	3.77x	4.47x	5.56x	6.91x	8.1x	9.94x	12.84x	19.13x	38.76x