

Credit Analysis

Owens Corning

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Ratings:	Security Class	DCR	Latest Change	Prior	Moody's/S&P
	Debentures	BBB	03/96	BBB-	Baa3/BBB-
Rating Watch:		No			-/No

Rating Rationale

Ratings for Owens Corning (OCF) are based on moderate debt levels in relation to the company's operating cash flow and strong market positions in its primary products. Asbestos-related liabilities will continue to lay claim to the company's cash flows over the near term.

- OCF continues to benefit from steady growth in its primary markets, and has diversified its cash flow base through its growing international operations.
- Debt levels have been reduced and remain moderate in relation to cash flow. Balance sheet improvement in the first half of 1995 was aided by the conversion to equity of \$173 million in convertible junior subordinated debentures and the issuance of \$194 million in convertible monthly income preferred stock.
- Asbestos claims against the company continued to be filed at a high level through 1995. However, we expect that the increase in the level of claims has been an effort to beat numerous state and federal tort reform efforts, and that the quality of the claims has deteriorated. We expect that new claims will begin to decline in 1996, although cash outlays will increase over the near term. The recent settlement with insurance companies confirming coverage of approximately \$330 million eliminates previous uncertainty regarding these funds, allowing OCF additional flexibility.
- OCF has had the capacity to make a number of growth-oriented investments over the past several years, focusing first on cost-cutting and productivity enhancements, and then increasingly on growth-oriented acquisitions and capacity expansion.

Liquidity/Debt Structure

OCF's balance sheet reflects the significant capital to be expended in the future to settle asbestos claims. OCF projects that on claims made through 1999, it will spend approximately \$457 million in excess of insurance proceeds to settle asbestos claims (although the timing of the actual payments will be spread out over a longer period). These payments, when combined with the company's capital expenditure program, have pushed the company into a negative cash flow position over the past two years, which could continue over the near term in the event of a downturn in economic conditions. However, debt protection provided through operating cash flow remains healthy, with 1995 EBITDA/interest expense comfortably increasing over 1994 levels. Healthy cash flows and the \$367 million in new equity provided by the converted debentures and the preferred stock have continued to improve the company's capital position. Long-term debt maturities are not large over the next several years, and liquidity from operations is supplemented by unused bank lines totalling \$596 million (as of 12/31/95).

Recent Developments

Favorable end markets and the company's productivity improvements have resulted in continuing margin improvement. Global pricing strength accounted for the majority of the sales gain in 1995, aided by the acquisition of the Pilkington businesses in the second quarter of 1994. Management is actively expanding capacity in its global composites business to take advantage of growing global demand, although individual projects are moderate in size. Acquisitions will continue to play an active role in OCF's strategy through the year 2000, with a particular emphasis on product line extensions or technology opportunities, and on continued international expansion. The recent settlement of OCF's insurance coverage amounts to the confirmation of \$330 million in coverage (plus the ability to purchase additional coverage), with OCF having access to 80% of this amount prior to 1999.

Major Risks

The major risk faced by OCF continues to be in the area of asbestos-related liabilities. At yearend 1995, 144,000 claims were outstanding against the company (up from 107,200 at the yearend 1994) with pretax reserves of \$707 million having been established for claims made through 1999. Claims made after that date, or higher-than-projected settlement

costs on claims made prior to 1999, remain an uncertainty. OCF remains exposed to cyclical downturns in construction activity, and these risks may be augmented by the company's aggressive growth targets. Negative cash flows could expand upon a deterioration in the economy and a continuation of the company's capital expenditure program.

Fundamentals

Owens Corning operates in two primary markets: Building Products (67% of 1995 sales) and Composite Materials (33%). Through the building products segment, OCF manufactures insulation, roofing materials, and specialty products for home exteriors such as patio doors and windows. Through the Composite Materials division, OCF is the world's largest manufacturer of glass fiber composites. OCF produces these composites for end uses in more than 40,000 industrial and consumer products. OCF is aggressively pursuing a target of \$5 billion in sales by the year 2000. New product introductions include the first new glass fiber product for use as insulation in nearly 60 years. This product, Miraflex, can be compressed into rolls that are 25% of the size of existing products, conserving storage and transportation costs, and also has significant cost advantages in the manufacturing process.

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Corporate Profile and Strategy

The Building Products segment of Owens Corning (OCF) focuses on three primary categories: insulation, roofing materials and home exterior products, such as windows and patio doors. The company's primary focus is on the home improvement market, and estimates that only 18% of consolidated sales are tied to U.S. housing starts. OCF products sold through home improvement retail outlets comprised approximately 40% of this segment's sales, with remaining sales made directly to a wide range of contractors, fabricators and manufacturers. The company has a tremendous franchise in its U.S. insulation business, with strong brand identification and a high market share position that the company is now trying to establish overseas.

Recent Developments

Structural Developments

The Composite Materials segment is the world's leading supplier of glass composites, whose major uses include roofing shingles, internal building components (such as tubs and showers), automotive components and piping. Growing applications have resulted in its use in over 40,000 end products, diversifying the company's customer and revenue base.

OCF's operations have undergone a number of structural changes over the past several years, with the intent of focusing on core product strengths and improved manufacturing efficiency. In the past three years the company has sold its underground storage tank business, spun off its polyester resin business into a joint-venture, closed its resol product line and sold its remaining 28% share in a Japanese fiber glass joint venture. Additionally, the company exchanged its commercial roofing business for a residential roofing business, which is less cyclical and is a better fit with the company's existing distribution channels. These transactions,

along with a number of facility consolidations, manufacturing process improvements, product line rationalizations and other steps, have resulted in a number of charges being taken over the past five years (see Chart 1).

Chart 1
Special Charges

Year	Pretax Charge \$ Millions	Purpose
1994	\$44	Personnel reductions
	\$28	Disposition of commercial roofing business
	\$20	Divestiture of non-strategic businesses and facilities
	\$22	Business realignments
	\$3	Other
1993	\$17	Personnel reductions in European operations
	\$8	Write-down of hydrocarbon ventures
	\$6	Write-down of European assets
1992	\$14	Personnel reductions in building products segment
	\$2	Asset write-downs associated with centralization of accounting and information systems
1990	\$65	Restructuring charge

These steps have led to an improvement in reported gross margins, as shown in Chart 2, which breaks down the company's recent operating performance and extracts the numerous charges involved with these steps. Although this improvement has occurred during a period of relatively strong economic conditions (and simply returns margins to 1989 peak levels), we believe that the company has reduced costs on a sustainable basis and the recent margin improvement has exceeded what would be explained by the asset write-downs, price increases and operating leverage.

1995 Operating Segments

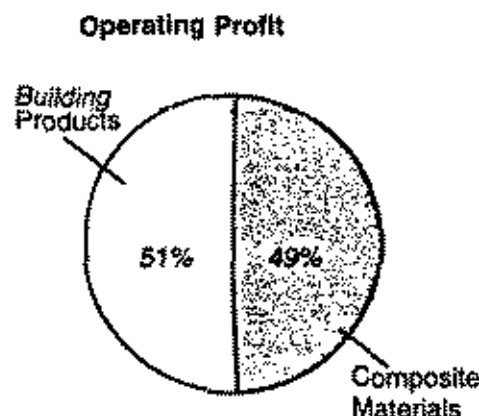
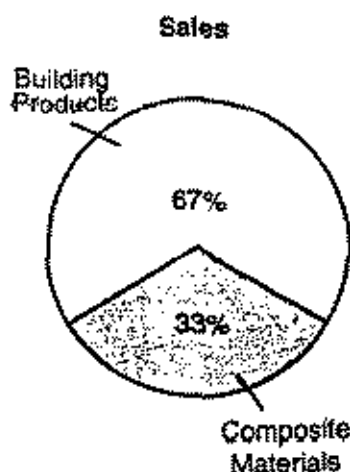


Chart 2
Productivity Enhancement

	1985	1994	1993	1992	1991	1990
Gross Margin (%)	26.1	24.3	22.1	21.4	21.5	24.9
Operating Margin (%)	11.4	8.7	8.0	7.4	7.0	9.4
Operating Margin excluding charges (%)	11.4	10.7	9.1	8.0	7.0	11.5

New Product Development

Through the 1990s, in addition to its cost-cutting and productivity emphasis, OCF maintained a steady focus on new product development. The most visible evidence of this has been the 1994 introduction of Pink Plus (which includes the company's new Miraflex fiber). This product is much more compact than existing products and is less costly to produce. OCF is in the process of rolling out this product in a number of test markets, with further expansion tied to additional production capacity coming on stream.

A second product still in its infancy is the company's Prominence roofing shingle, which management believes is superior to existing products on the market. This product is also in the process of being gradually rolled out in line with growing market acceptance and incremental production capacity.

Although these products are expected to involve some cannibalization of existing product, a certain degree of market segmentation (contractor vs. building material retailer, new construction vs. remodeling) and price differential will serve to offset some of this effect. Regardless, the company's capacity to maintain a leadership position incorporates a level of pricing strength when negotiating with customers.

OCF is also seeking to capitalize on its proprietary technologies and materials through brand-name marketing. By promoting brand name awareness, primarily through joint marketing agreements with end products made from its materials, OCF attempts to position its products as technological leaders. The company then hopes to leverage this brand awareness into additional product opportunities. Consolidating a number of the company's products (including insulation, roofing shingles, vinyl siding and windows, etc.) into a

single energy-efficient Pink House concept is expected to benefit the company through an integrated systems and marketing approach.

Investments

OCF has dramatically expanded its capital investment program over the past several years, characterized by increased levels of acquisitions, capacity expansion and growth initiatives. We also note the changing nature of the investments, with internal, productivity and cost reduction expenditures being replaced by more external, growth-related expenditures. Concerning acquisitions, OCF is expected to continue to make moderate-sized acquisitions while continuing to focus on its core businesses. Acquisitions will not be a driving force behind the company's growth, but as in the recent past, OCF will take advantage of available opportunities to add complementary product lines and/or technologies. Recent acquisitions are detailed in Chart 3. The company's focus on maintaining target debt levels indicates a high likelihood that the company will continue to use stock, where appropriate, to finance acquisitions.

As for the company's capital expenditure program, the majority of OCF's capital expenditures prior to 1994 have been in the nature of consolidation and rationalization, efficiency and productivity, and cost reductions. Since 1994, the company has been able to focus investment on more discretionary capital expenditures such as: capacity expansions to support growing end markets, new product introductions and geographic expansion.

OCF's capacity expansion is primarily focused on taking advantage of growth in global demand for its composite materials products. With sold out production worldwide, OCF has been rapidly ratcheting up its expenditure plans. In 1995, OCF announced that by the end of 1996 its composites capacity would grow by more than 30% over year-end 1994 levels through a \$200 million expenditure program. Specifics include incremental capacity additions at its operations in the U.S. (Texas and Tennessee), Brazil, South Korea, France and the UK, and a joint venture agreement to begin production in India. Although large in the aggregate, the incremental nature of planned capacity additions entails modest outlays per

Chart 3
1994-95 Acquisition Activity

Company	Date	Product Line	Annual Sales (\$)	Price (\$)
UC Industries	5/94	Foam board insulation	-	45
Pilkington Insulation/	6/94	Fiber glass insulation, rock wool insulation,	-	110
Kisons Insulation Products		thermal and acoustical insulation		
Western Fiberglass Group	1/95	Fiberglass products	NA	26
Falcon Manufacturing	9/95	Foam insulation products	33	35
Soltech, Inc.	11/95	Structural, thermal and acoustical insulation products	49	NA
Fiber-Lite	12/95	Fiberglass molding products	33	NA
Delsan Industries	12/95	Vinyl windows, patio doors, accessories	10	NA

*UC Industries and Pilkington contributed \$134 million to OCF's 1994 sales.

Chart 4
Business Segment Breakdown

	1995	1994*	1993	1992	1991	1990	1989
Building Products							
Sales (\$)	2,404	2,273	1,946	1,899	1,840	2,036	1,952
Operating Income (\$)	237	189	175	109	96	116	183
Change in Sales (%)	5.8	16.8	2.5	3.2	-8.3	4.2	5.4
Change in Oper. Income (%)	25.4	8.0	60.6	13.5	-17.2	-35.6	-27.7
Operating Margin (%)	9.9	8.3	9.0	5.7	5.2	5.8	9.5
Composite Materials							
Sales (\$)	1,208	1,078	998	979	943	1,075	1,046
Operating Income (\$)	225	109	98	138	127	213	277
Change in Sales (%)	12.1	8.0	1.9	3.8	-11.2	2.4	7.0
Change in Oper. Income (%)	106.4	11.2	-28.0	8.7	-40.4	-23.1	3.7
Operating Margin (%)	18.6	10.1	9.8	14.1	13.5	20.1	26.7

*Includes restructuring charges in 1994. Excluding charges, the operating earnings for the building products segment and the composite materials segment would have been \$269 and \$131 respectively.

project, with the company retaining the discretion to postpone expenditures in the event of adverse market conditions. In the building products segment, OCF's new products are being produced largely at existing facilities that require relatively moderate conversion expenditures.

Outlook

OCF has aggressive growth targets in place, stating that it intends to grow sales to \$5 billion by the year 2000, with cash flow and earnings per share growing at twice the rate of sales growth. Annual 6% productivity gains are part of the plan to help it achieve these goals.

As can be seen from Chart 4, Owens Corning's results exhibited a great degree of cyclicality during the last downturn. The peak-to-trough decline in operating earnings of the building products segment was more than 65% (1987-1991), while earnings at the composites segment declined 54% (1989-91). Although we expect that OCF's results will continue to be closely tied to U.S. economic cycles, we have noted a number of factors that may result in less of a direct correlation than in the previous down cycle.

Despite recent strength in international operations, OCF's international sales and operating income have been relatively constant as a percentage of consolidated results since 1990. However, we expect the proportion of international operations to increase, as international investments have recently been taking a larger percentage of total capital expenditures. International investments (primarily capacity expansion-related) have increased from approximately 29% of segment capital expenditures in 1993 to 57% in 1995. In absolute dollar terms, international investments have increased during this period from \$46 million to \$126 million. We expect that these investments will result in a growing share of the company's revenues coming from international operations, in

line with the company's objective of having international revenues account for 40% of consolidated revenues by the year 2000. As one example, OCF had no sales in China in 1993 but expects to achieve sales of \$60 million in 1996 and could have as many as 10 plants there by the year 2000.

Additionally, the growth in the composites business is occurring not only on a geographic basis, but through growth in applications. New applications provide a solid base for future volume growth and further diversify OCF's end markets. Our assumption is that although OCF's operations will remain strongly cyclical, the company should benefit from the fact that different global economies and products will experience different cycles, and this should help to moderate OCF's historically tight correlation to U.S. cyclical downturns.

Financial Position

From a capital structure point standpoint, OCF is also in a better position to face a deterioration in economic conditions. At the end of 1991 (post-asbestos liability charge), OCF had a shareholder deficit of \$1,076. Due to continued profitability, the recent conversion of \$173 million in convertible subordinated debentures and the issuance of \$194 million in preferred stock, OCF's equity should turn positive in 1996, while total debt has been reduced from \$1.25 billion at yearend 1991 to under \$900 million at yearend 1995. The company is certainly in a position to reduce debt further, but management is comfortable with current debt levels. OCF is instead channeling funds into increased levels of capital expenditures, although maintaining intended levels of capital expenditures in the event of a downturn would likely result in increased debt levels.

We believe that lower debt levels leave the company well positioned to handle the increased level of payments on asbestos claims expected over the next several years. OCF

estimates that its asbestos liabilities for claims made through 1999 will require cash expenditures totaling approximately \$470 million (after tax and insurance proceeds). Assuming that these payments are spread over five years (although in reality the actual payments will be spread out over a longer period of time), this calculates to approximately \$94 million annually, as compared with approximately \$80 million annually during the 1993-95 period.

If these payments are viewed as a debt obligation, the sum of projected interest expense plus the annual payment obligation would be slightly more than OCF's annual interest expense during the 1988-90 period. A primary difference, of course, is that in the current situation the liability is amortizing and would be extinguished over the five-year period. OCF's free cash flow (EBDIT less interest, payments for asbestos claims and capital expenditures) is not significantly different from that just prior to the last downturn. However, OCF is now reinvesting the funds to grow its business rather than channeling funds into debt reduction (see Chart 5). The company estimates that its maintenance capital expenditure level is approximately \$120 million annually (primarily for furnace rebuilds and environmental expenditures), with OCF having the ability to reduce capacity expansion expenditures if demand does not materialize as forecast.

Chart 5
Capital Investment/Debt Reduction
Comparison

	1995	1994	1993	1992	1991	1990
EBDIT (\$)	537	344	387	364	376	560
Asbestos Payments (\$)	87	94	89	110	131	165
Interest Expense (\$)	57	128	59	8	11	0
Cash Flow (\$)	393	122	239	262	234	395
Capex (\$)	276	258	178	144	114	146
Debt Repayment (\$)	**158	*173	85	66	142	240

*Increased debt levels related primarily to \$155 million in acquisitions during 1994.

**OCF received proceeds of \$194 million from a preferred stock issue during 1995.

Asbestos Liability

Owens Corning appears to be turning the corner with regard to its asbestos liabilities, with a declining concern surrounding the company's ability to shoulder the financial impact. Although the number of claims has continued unabated through 1995, we believe that the current high level of new claims is due to a "last sweep" of available potential litigants in the face of tort reform, and that these claims are of increasingly questionable quality. The number of claims increased to 56,000 in 1995 (up from 27,500 claims in 1994 and 31,700 in 1993), leaving a backlog of 144,000 unsettled claims as of yearend 1995. Although annual cash payments to settle claims are expected to increase, we feel that the uncertainty

surrounding these claims and the related financial risk, have decreased. The following factors have influenced our views on the financial risks posed by these liabilities.

1) In 1995, Owens Corning reached an agreement with its insurers on approximately \$330 million in insurance coverage for asbestos liabilities. This coverage, although previously recorded as an asset, had been in arbitration. The \$330 million supplements confirmed coverage of approximately \$231 million (at 9/30/95). The agreement allows Owens Corning to receive 80% of the insurance through 1999 and also provides the company with the ability to purchase additional coverage.

2) The most significant trend in Owens Corning's favor is that of tort reform. A number of states are looking at, or have passed, legislation that would limit liability through a number of qualifications. These limits may include statutes of limitation on product liability, limits on punitive damages, the elimination or reduction of joint and several liability, and others. At the federal level, tort reform in Congress (although apparently shelved in the short term) is expected to address many of the same issues.

Accordingly, we expect that OCF will begin to see a decline in new cases filed beginning in early 1996. As a result of the turning legislative tide, we believe that a large number of dubious claims have been filed in order to get in under the wire ahead of tort reform. As an example, OCF received approximately 650 claims in the four months preceding tort reform in Illinois (December 1994 to March 1995) and received a total of fewer than 50 cases in the remainder of 1995. In Texas, OCF received almost 16,000 cases in August 1995 alone (just prior to the effective date of tort reform) and received fewer than 1,000 cases through the remainder of the year.

3) The length of time since the product has been in potentially liable usage and the aging demographics of the potentially affected population will inevitably lead to a decline in eligible claims. Owens Corning stopped producing asbestos products in 1972, while medical opinion generally agrees that seven years of consistent exposure is required before adverse health effects are attributed. Therefore, the eligible population of those who have not filed claims to this point should be shrinking. Owens Corning began placing labels on the product in 1966, and government standards have been in place regarding the usage, storing and disposal of the product. As a result, later cases of ill health effects have been the result of misuse and non-compliance with guidelines, thereby reducing the likelihood of liability.

We emphasize, however, that payments to be made on existing claims are still significant, and will continue to claim a meaningful portion of the company's cash flow over the medium term. Fully one-third of claims (although of questionable merit) are in notoriously plaintiff-friendly Texas. However, we

believe that the uncertainties associated with future claims and the potential to adversely impact OCF's financial position have diminished.

Financial Implications

As for the financial implications, Owens Corning has reserved \$1,137 million (at yearend 1995) for payment on claims made through 1999. Against these reserves, Owens Corning has confirmed insurance proceeds of approximately \$430 million, leaving a net liability (pretax) of \$707 million. At a 36% tax rate, Owens Corning would have cash outflows of \$452 million on claims filed through 1999. (The actual timing of these payments is difficult to project.) In the event that the factors

listed above are not indicative of a positive trend in the company's liability position, the company's operating cash flow and balance sheet position are able to support additional expenditures.

Balance Sheet

OCF has taken several steps to improve their balance sheet in 1995. The conversion of \$173 million in convertible preferred stock, followed by the issuance of \$200 million in monthly income preferred convertibles, resulted in a substantial improvement in the equity account. OCF has now settled on a target debt level of approximately \$900 million, excluding the \$100 million receivables facility.

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Owens Corning
(\$ in Millions Except As Noted)

	9 Months Ended		1994	1993	1992	1991	1990
Coverage Ratios	9/95	9/94					
Fixed Charge (X)	3.8	1.8	2.2	2.7	1.8	1.4	2.1
EBIT/Interest (X)	4.3	1.9	2.4	3.0	1.9	1.5	2.2
EBDIT/Interest (X)	5.6	3.2	3.7	4.3	3.3	2.9	3.4
Profitability							
Revenues	2,648	2,465	3,351	2,944	2,878	2,783	3,111
% Change	7.4	12.6	13.8	2.3	3.4	-10.5	3.7
% Foreign	26.7	22.8	24.0	24.4	26.5	28.1	29.2
EBDIT	408	219	344	387	364	376	560
% Revenues	15.3	8.9	10.3	13.2	12.7	13.5	18.0
Interest Expense	73	69	94	89	110	131	165
DD&A	92	85	118	121	151	180	202
Net Income	166	31	74	118	72	19	126
% Revenues	6.3	1.3	2.2	4.0	2.5	0.7	4.1
% Equity	NM	NM	NM	NM	NM	NM	NM
Cash Flow							
From Operations	351	167	260	246	207	184	274
% Total Debt	45.6	19.2	21.5	24.5	18.8	15.7	21.1
Change in Oper Working Cap	-144	-110	83	16	-29	58	52
Other	-128	-55	-110	-9	14	11	35
Net From Operating Activities	79	2	233	253	192	253	361
Capital Expenditures	-183	-165	-258	-164	-144	-114	-146
Acq. & Divest., Net	0	0	0	0	0	0	-2
Other Investments	-34	-92	-97	-14	10	-6	5
Net Debt Proceeds	-92	258	173	-85	-66	-142	-240
Net Equity Proceeds	194	0	0	0	0	0	0
Dividends	0	0	0	0	0	0	0
Other Financing incl. Forex	-3	4	5	11	7	5	0
Net Change in Cash/Mkt. Sec.	-39	7	56	1	-1	-4	-22
Liquidity							
Cash	20	10	59	3	2	3	7
Working Capital	15	-80	-143	-49	123	-171	-58
Current Ratio (X)	1.0	0.9	0.9	0.9	1.2	1.4	1.1
Quick Ratio (X)	0.4	0.4	0.4	0.4	0.6	0.7	0.6
Days Receiv. Outstanding	44	50	36	39	39	45	49
Inventory Turnover (X)	9.3	9.6	10.9	9.6	9.5	9.0	9.1
Capitalization							
Short-Term Debt	155	250	175	106	81	24	214
Senior Long-Term Debt	798	877	864	725	845	735	657
Subordinated LT Debt	0	173	173	173	173	413	429
Total Debt	953	1,300	1,212	1,004	1,099	1,172	1,300
Off Balance Sheet Debt	234	0	234	119	89	78	74
Total Adjusted Debt	1,187	1,300	1,446	1,123	1,188	1,250	1,374
Preferred Stock	0	0	0	0	0	0	0
Common Equity	-295	-713	-680	-669	-1,008	-1,076	-350
Total Capital	1,086	587	766	254	180	174	1,024
(%) S-T-D	14.3	42.6	22.9	41.7	45.0	13.8	20.9
(%) Total Adjusted Debt	109.3	221.5	188.8	442.1	660.0	718.4	134.2
Total Debt/EBDIT	1.9	3.9	3.5	2.6	3.0	3.1	2.3
Ratings History (Debentures)							
DCR	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-
Moody's	Baa3	Baa3	Baa3	Baa3	Baa3	Baa3	Ba2
Standard & Poors	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-	BBB-
Debt Maturities							
1995	NA						
1996	35						
1997	27						
1998	120						
1999	20						
Financing Alternatives							
Principal Bank Facilities (\$MM)							
Revolver					298	357	
Committed Lines					64	239	