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Form 10-Q
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(Mark One)
[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended August 1, 1998
OR
[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition period from $\qquad$ to $\qquad$
Commission File No. 1-7819
Analog Devices, Inc.
(Exact name of registrant as specified in its charter)

## Massachusetts

(State or other jurisdiction of incorporation or organization)

One Technology Way, Norwood, MA 02062-9106 (Address of principal executive offices)

04-2348234
(I.R.S. Employer Identification No.)
(Zip Code)
(781) 329-4700
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES [X] NO [ ]

The number of shares outstanding of each of the issuer's classes of Common Stock as of August 28, 1998 was 162,611,880 shares of Common Stock.

## PART I

FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS
ANALOG DEVICES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)
(thousands except per share amounts)

|  | Three Months Ended |  |
| :---: | :---: | :---: |
|  | August 1, 1998 | August 2, 1997 |
| Net sales | \$294, 920 | \$318, 139 |
| Cost of sales | 161,522 | 158,901 |
| Gross margin | 133,398 | 159,238 |
| Operating expenses: |  |  |
| Research and development | 55, 088 | 49,895 |
| Selling, marketing, general and administrative | 48,202 | 48,939 |
| Restructuring charge | 17,000 | - - |
| Operating income | 13,108 | 60,404 |
| Equity in loss (income) of WaferTech | 3,560 | (85) |
| Interest and other expense, net | (794) | (803) |
| Income before income taxes | 10,342 | 61,292 |
| Provision for income taxes | 1,551 | 15,323 |
| Net income | \$ 8,791 | \$ 45,969 |
| Shares used to compute basic earnings per share | 162,451 | 159,796 |
| Basic earnings per share | \$ 0.05 | \$ 0.29 |
| Shares used to compute diluted earnings per share | 178,546 | 177,773 |
| Diluted earnings per share | \$ 0.06 | \$ 0.27 |

See accompanying notes.

ANALOG DEVICES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME (Unaudited)
(thousands except per share amounts)

|  | Nine Mon | Ended |
| :---: | :---: | :---: |
|  | August 1, 1998 | August 2, 1997 |
| Net sales | \$958, 750 | \$911, 015 |
| Cost of sales | 490,103 | 457,372 |
| Gross margin | 468,647 | 453,643 |
| Operating expenses: |  |  |
| Research and development | 166,253 | 143,367 |
| Selling, marketing, general and administrative | 160,862 | 140,929 |
| Restructuring charge | 17,000 | -- |
| Gain on sale of business, net | $(13,100)$ | -- |
| Operating income | 137,632 | 169,347 |
| Equity in loss of WaferTech | 7,065 | 609 |
| Interest and other expense, net | $(1,780)$ | (951) |
| Income before income taxes | 132,347 | 169,689 |
| Provision for income taxes | 30,832 | 42,422 |
| Net income | \$101,515 | \$127, 267 |
| Shares used to compute basic earnings per share | 161,866 | 159,008 |
| Basic earnings per share | \$ 0.63 | \$ 0.81 |
| Shares used to compute diluted earnings per share | 178,706 | 176,609 |
| Diluted earnings per share | \$ 0.60 | \$ 0.75 |

See accompanying notes.

ANALOG DEVICES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(thousands)

Assets

Cash and cash equivalents
Short-term investments
Accounts receivable, net
Inventories:
Finished goods
Work in process
Raw materials

Deferred tax assets
Prepaid expenses
Total current assets

Property, plant and equipment, at cost:
Land and buildings
Machinery and equipment
Office equipment
Leasehold improvements

Less accumulated depreciation and amortization

Net property, plant and equipment

Investments
Intangible assets, net
Other assets
Total other assets

August 1, 1998
November 1, 1997 August 2, 1997
289,601
51,006
255,886

66,253
128,187
31,526
-------
225,966
54,761
18,209
--------
895,429
145,952
938,602
58,714
87,407
$1,230,675$
569, 040
661, 635

131,468
14,768
60,553
206, 789
\$1,763, 853
==========
\$ 235,699
80,770 246, 680 59, 953 135, 082 26,823

221, 858 55, 800 15, 402 856, 209

158,729
1, 034, 437
65,444 100, 265
$1,358,875$
644, 907
713, 968

190, 051
16, 525
51, 720
258, 296
\$1, 841, 857
==========

144,744 893, 452 56, 054 83,440

$$
1,177,690
$$

548, 600
629, 090

122, 081
15, 280
42, 074
179,435
\$1, 664, 734

See accompanying notes.

ANALOG DEVICES, INC.
condensed consolidated balance sheets
(Unaudited)
(thousands except share amounts)

Liabilities and Stockholders' Equity

Short-term borrowings and current portion of long-term debt
Obligations under capital leases Accounts payable
Deferred income on shipments to domestic distributors
Income taxes payable
Accrued liabilities
Total current liabilities

Long-term debt
Noncurrent obligations under capital leases
Deferred income taxes
Other noncurrent liabilities
Total noncurrent liabilities

Commitments and Contingencies
Stockholders' equity:
Preferred stock, \$1.00 par value, 500,000 shares authorized, none outstanding

Common stock, \$.16 2/3 par value, 600,000,000 shares authorized, 163,927,212 shares issued (161,941, 094 in November 1997, 161,296,898 in August 1997)

Capital in excess of par value Retained earnings Cumulative translation adjustment Less $1,309,917$ shares in treasury, at cost (35,094 in November 1997 and 10,186 in August 1997)

Total stockholders' equity

| 27,322 | 26,991 | 26,883 |
| :---: | :---: | :---: |
| 232,437 | 223,885 | 194,909 |
| 933,099 | 831,584 | 780,632 |
| 6,925 | 6,724 | 6,062 |
| 1,199,783 | 1,089,184 | 1,008,486 |
| 30,114 | 1,054 | 316 |
| 1,169,669 | 1,088,130 | 1,008,170 |
| \$1,841, 857 | \$1,763, 853 | \$1,664,734 |


| $\$$ | 1,922 |
| ---: | ---: |
| 12,065 |  |
| 64,379 |  |
|  |  |
| 46,512 |  |
| 63,647 |  |
| 80,837 |  |
| ------ |  |
| 269,362 |  |

309,985
29, 831
24,499
38,511
402, 826
\$

## 11, 733

97, 654
37,013
52,550
75,444
274,394 ---------

310,000
38,852
20,740
31,737
401, 329 ---------
--

46,512
63,647
80,837
26
\$ 1,458
11, 625
83, 814
32,874
68,570 65,933

264,274
---------
310, 000
41,703
21, 000
19,587
392,290
---------
==========

August 1, 1998
November 1, 1997

- . - . . . . . . . . . . . -

|  | Nine Mont | Ended |
| :---: | :---: | :---: |
|  | August 1, 1998 | August 2, 1997 |
| OPERATIONS |  |  |
| Cash flows from operations: |  |  |
| Net income | \$ 101, 515 | \$ 127, 267 |
| Adjustments to reconcile net income |  |  |
| to net cash provided by operations: |  |  |
| Depreciation and amortization | 93,310 | 75,556 |
| Noncash portion of restructuring charge | 10,000 | - - |
| Equity in loss of WaferTech | 7,065 | 609 |
| Deferred income taxes | 3,754 | 4, 016 |
| Other | $(1,192)$ | (807) |
| Changes in operating assets and liabilities | $(17,252)$ | $(21,556)$ |
| Total adjustments | 95,685 | 57,818 |
| Net cash provided by operations | 197, 200 | 185, 085 |
| INVESTMENTS |  |  |
| Cash flows from investments: |  |  |
| Additions to property, plant and equipment, net | $(143,986)$ | $(119,121)$ |
| Maturities of short-term investments available for sale | 123,949 | 124,224 |
| Purchases of short-term investments available for sale | $(111,735)$ | $(115,184)$ |
| Long-term investments | $(63,191)$ | $(52,911)$ |
| Increase in other assets | $(2,142)$ | $(16,095)$ |
| Net cash used for investments | $(197,105)$ | $(179,087)$ |
| FINANCING ACTIVITIES |  |  |
| Cash flows from financing activities: |  |  |
| Repurchase of common stock | $(44,717)$ | 16,-- |
| Proceeds from employee stock plans | 22,507 | 16,605 |
| Payments on capital lease obligations | $(8,688)$ | $(8,421)$ |
| Proceeds from equipment financing | - - | 7,123 |
| Net increase (decrease) in variable rate borrowings | 1,920 | $(2,500)$ |
| Net cash (used by) provided by financing activities | $(28,978)$ | 12,807 |
| Effect of exchange rate changes on cash | 987 | 6,785 |
| Net (decrease) increase in cash and cash equivalents | $(27,896)$ | 25,590 |
| Cash and cash equivalents at beginning of period | 289,601 | 210, 109 |
| Cash and cash equivalents at end of period | \$ 261, 705 | \$ 235,699 |
| SUPPLEMENTAL INFORMATION |  |  |
| Cash paid during the period for: |  |  |
| Income taxes | \$ 21, 125 | \$ 24,389 |
| Interest | \$ 12,345 | \$ 12,760 |

Analog Devices, Inc.
Notes to Condensed Consolidated Financial Statements
August 1, 1998

Note 1 - In the opinion of management, the information furnished in the accompanying financial statements reflects all adjustments which are necessary to fairly state the results for this interim period and should be read in conjunction with the most recent Annual Report to Stockholders.

Note 2 - Certain amounts reported in the previous year have been reclassified to conform to the 1998 presentation.

Note 3 - Investments
During the first quarter of fiscal 1998 the Company made the final payment of $\$ 56$ million in connection with its joint venture with Taiwan Semiconductor Manufacturing Company ("TSMC") and other investors for the construction and operation of a semiconductor fabrication facility in Camas, Washington ("WaferTech"). The Company has invested $\$ 140$ million in WaferTech and has an 18\% equity ownership in the joint venture.

Note 4 - Gain on Sale of Business
During the second quarter of fiscal 1998, the Company completed the sale of its disk drive IC business to Adaptec, Inc. This disposal is in line with the Company's strategic decision to concentrate on other areas of its business, specifically analog ICs and DSP products. The Company received approximately $\$ 27$ million in cash for the disk drive product line and after providing for the write-off of inventory, fixed assets and other costs incurred to complete the transaction, recorded a net gain of approximately $\$ 13$ million. The Company has entered into other arrangements with Adaptec that provide for payments to the Company aggregating $\$ 13$ million for assisting Adaptec in future research and development efforts and up to $\$ 20$ million in royalties based on sales by Adaptec of products incorporating the acquired ADI technology.

## Note 5 - Restructuring Charge

The Company recorded a restructuring charge of $\$ 17$ million during the third quarter of fiscal 1998. Seven million of this charge relates to a worldwide workforce reduction of approximately 350 employees in the manufacturing, selling and G\&A areas. As a result of a review of its business strategies, the Company is scaling back its efforts in certain business areas and has written off \$10 million, which is the carrying value of specific assets associated with these businesses.

## Note 6 - Common Stock Repurchase

During the third quarter of fiscal 1998 the Company was authorized by the Board of Directors to repurchase up to a maximum of 4 million shares of its outstanding common stock. As of August 1, 1998 the Company had purchased approximately $1,816,300$ shares of stock for $\$ 44.7$ million. The Company expects to purchase the remaining 2.2 million shares as market conditions allow. The repurchased shares will be held as treasury shares and will be available for issuance under the Company's stock option plans, employees stock purchase plan and other stock benefit plans.

Analog Devices, Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
August 1, 1998

## Note 7 - Earnings Per Share

In February 1997, the Financial Accounting Standards Board issued Statement No. 128, "Earnings per Share", which the Company adopted in the first quarter of fiscal 1998. The Company changed the method used to compute earnings per share and will restate all prior periods. Under the new requirements, primary and fully diluted earnings per share were replaced by basic and diluted earnings per share. Basic earnings per share is computed based only on the weighted average number of common shares outstanding during the period and the dilutive effect of future issues of common stock relating to stock option programs and convertible debt financing is excluded. Diluted earnings per share is computed essentially in the same manner as fully diluted earnings per share with some exceptions. The primary exception affecting the Company's calculation of diluted EPS is that the dilutive effect of stock options is always based on the average market price of the stock during the period, not the higher of the average and period end market price which was required under APB 15. The following table sets forth the computation of basic and diluted earnings per share:
Net income
Weighted average common shares outstanding
BASIC EARNINGS PER SHARE
Net income
Interest related to convertible subordinated
notes, net of tax
Earnings available for common stock
Weighted average common shares outstanding
Assumed exercise of common stock equivalents
Assumed conversion of subordinated notes
Weighted average common and common
equivalent shares
DILUTED EARNINGS PER SHARE

## Three Months Ended

August 1, 1998 August 2, 1997


Analog Devices, Inc.
Notes to Condensed Consolidated Financial Statements (Continued)
August 1, 1998
Note 7 - Earnings Per Share (Continued)

|  | Nine Mon | hs Ended |
| :---: | :---: | :---: |
|  | August 1, 1998 | August 2, 1997 |
| Net income | \$101, 515 | \$127, 267 |
| Weighted average common shares outstanding | 161, 866 | 159, 008 |
| BASIC EARNINGS PER SHARE | \$ 0.63 | \$ 0.81 |
| Net income | \$101, 515 | \$127, 267 |
| Interest related to convertible subordinated notes, net of tax | 4,275 | 4,275 |
| Earnings available for common stock | \$105,790 | \$131, 542 |
| Weighted average common shares outstanding | 161,866 | 159, 008 |
| Assumed exercise of common stock equivalents | 5,856 | 6,616 |
| Assumed conversion of subordinated notes | 10,984 | 10,985 |
| Weighted average common and common equivalent shares | 178,706 | 176,609 |
| DILUTED EARNINGS PER SHARE | \$ 0.60 | \$ 0.75 |

## Note 8 - New Accounting Standards

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standard No. 133 "Accounting for Derivative Instruments and Hedging Activities" ("FAS 133"). FAS 133 establishes standards for accounting and reporting of derivative instruments for periods beginning after June 15, 1999 and early adoption is permitted. FAS 133 requires that all derivative instruments be recognized in the balance sheet as either assets or liabilities and measured at fair value. Furthermore, FAS 133 requires current recognition in earnings of changes in the fair value of derivative instruments depending on the intended use of the derivative and the resulting designation. The Company has not determined the timing of adopting FAS 133 or the impact of such adoption on its financial statements.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This information should be read in connection with the unaudited consolidated condensed financial statements and the notes thereto included in Item 1 of this Quarterly Report and the audited consolidated financial statements and notes thereto and Management's Analysis for the fiscal year ended November 1, 1997, contained in the Annual Report on Form 10-K.

The following discussion and analysis may contain forward-looking statements. Such statements are subject to certain risks and uncertainties, including those discussed below or in the Company's Form 10-K for the fiscal year ended November 1, 1997, that could cause actual results to differ materially from the Company's expectations. Readers are cautioned not to place undue reliance on any forward-looking statements, as they reflect management's analysis only as of the date hereof. The Company undertakes no obligation to release the results of any revision to these forward-looking statements which may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

## Results of Operations

Net sales for the third quarter of fiscal 1998 were $\$ 295$ million, a decrease of $7 \%$ from the $\$ 318$ million reported for the third quarter of fiscal 1997. Net sales for the first three quarters of fiscal 1998 were $\$ 959$ million, an increase of $5 \%$ from the $\$ 911$ million reported for the comparable period of fiscal 1997. The decrease from the third quarter of fiscal 1997 was primarily due to a decline in sales of SLIC products, the sale of the disk drive IC business in the second quarter of fiscal 1998 and the decline in demand for GSM chipsets. The decline in sales of SLIC products primarily occurred in the distributor channel as the distributors adjusted their order patterns in recognition of their higher inventory levels relative to current demand levels. These decreases were partially offset by increases in the DSP based business. Consistent with the current market environment for the industry, the Company has experienced diminished backlog and a softening of demand for its products, which has resulted in increased levels of inventory and more dependence on orders that are received and shipped in the same quarter.

The gross margin for the third quarter of fiscal 1998 was $45.2 \%$, compared to $50.1 \%$ for the third quarter of fiscal 1997. The gross margin was $48.9 \%$ for the first three quarters of fiscal 1998 compared to $49.8 \%$ for the first three quarters of fiscal 1997. The decline in gross margin was primarily due to lower demand combined with a reduction in production rates. The Company anticipates gross margins to remain at a depressed level until sales volumes increase.

Research and development expenses ("R\&D") were $\$ 55$ million and $\$ 166$ million for the three months and nine months ended August 1, 1998, compared to $\$ 50$ million and $\$ 143$ million for the corresponding periods of fiscal 1997. While the Company believes that a continued commitment to research and development is essential in order to maintain product leadership with its existing products and to provide innovative new product offerings, during the third quarter of fiscal 1998 the Company began to curtail the growth in R\&D spending and reduced R\&D expense from $\$ 56$ million in the second quarter of fiscal 1998, to $\$ 55$ million in the third quarter of 1998. The Company has undertaken a review of its DSP strategy and concluded that the key to success in the DSP market is the continued active pursuit of opportunities in the general-purpose DSP market and a narrower focus on carefully selected opportunities in vertical market segments that can provide consistent growth and generate high, sustainable margin.

Selling, marketing, general \& administrative ("SMG\&A") expenses for the third quarter of fiscal 1998 were $\$ 48.2$ million a decrease of $\$ .7$ million from the $\$ 48.9$ million reported for third quarter of fiscal 1997. This decrease is a result of a concerted effort to constrain spending during a period of weakness in demand. SMG\&A expense for the nine months ended August 1, 1998 were $\$ 161$ million, an increase of $\$ 20$ million from the $\$ 141$ million for the nine months ended August 2, 1997. This increase was primarily attributable to a charge of $\$ 6$ million recorded in the second quarter related to the consolidation and realignment of the Company's North American third-party distribution channel and initiatives to streamline the Company's cost structure, along with a $\$ 8$ million charge related to bad debt reserves recorded in the first quarter of fiscal 1998.

The Company recorded a restructuring charge of $\$ 17$ million during the third quarter of fiscal 1998. Seven million of this charge relates to a worldwide workforce reduction of approximately 350 employees in the manufacturing, selling and G\&A areas. This action will result in an annual savings of approximately $\$ 10$ million, and will commence during the fourth quarter of fiscal 1998. In addition, the Company has undertaken a review of its business strategy and concluded that the key to success in the DSP market is the continued active pursuit of opportunities in the general-purpose DSP market and a narrower focus on carefully selected opportunities in vertical market segments that can provide consistent growth and generate high, sustainable margins. As a result of this review the Company is scaling back its efforts in certain business areas and has written off $\$ 10$ million, which is the carrying value of specific assets associated with these businesses.

The effective income tax rate decreased to $15 \%$ for the third quarter and $23 \%$ for the first nine month period of fiscal 1998 from $25 \%$ for the third quarter and first nine month period of fiscal 1997 due to a shift in the mix of worldwide profits.

Net income for the third quarter of fiscal 1998 of $\$ 9$ million decreased $\$ 37$ million compared to the third quarter of fiscal 1997. Net income for the first nine months of fiscal 1998 of $\$ 102$ million decreased $\$ 26$ million compared to the first nine months of fiscal 1997. Diluted earnings per share were $\$ 0.06$ and $\$ 0.60$ for the three months and nine months ended August 1, 1998, compared to $\$ 0.27$ and $\$ 0.75$ for the comparable periods of fiscal 1997.

## Liquidity and Capital Resources

At August 1, 1998, cash, cash equivalents and short-term investments totaled $\$ 300$ million. The Company's primary source of funds for the first nine months of fiscal 1998 was $\$ 197$ million of cash provided by operations. The principal uses of funds in the first nine months of fiscal 1998 were $\$ 45$ million used to repurchase common stock, a $\$ 56$ million payment made in connection with the Company's joint venture agreement with TSMC and others and the purchase of \$144 million of property, plant and equipment.

Accounts receivable totaled $\$ 212$ million at the end of the third quarter of fiscal 1998, a decrease of \$44 million from the fourth quarter of fiscal 1997 and $\$ 35$ million from the third quarter of fiscal 1997. The number of days sales outstanding has consistently decreased to 65 days for the third quarter of fiscal 1998, compared to 71 and 70 for the third and fourth quarters of fiscal 1997, respectively.

Inventories of $\$ 272$ million at August 1, 1998 rose $\$ 46$ million compared to the fourth quarter of fiscal 1997 and were $\$ 51$ million above the third quarter of fiscal 1997. The increase in inventory levels was a result of the Company running its factories during the first half of the year at production rates which turned out to be higher than the levels of incoming demand. The Company is adjusting production rates to be more in-line with current levels of demand.

Net additions to property, plant and equipment of $\$ 25$ million for the third quarter of fiscal 1998 were funded with cash generated from operations. This level of spending is down significantly from the prior three quarters where the average expense was $\$ 60$ million. This decrease in capital expenditures was a result of the Company's efforts to constrain all spending, including capital expenditures, in the current business environment. The Company currently plans to spend approximately \$160 million on capital expenditures during fiscal 1998.

During the third quarter of fiscal 1998 the Company was authorized by the Board of Directors to repurchase up to a maximum of 4 million shares of its outstanding common stock. As of August 1, 1998 the Company had purchased approximately $1,816,300$ shares of stock for $\$ 44.7$ million. The Company expects to purchase the remaining 2.2 million shares as market conditions allow. The repurchased shares will be held as treasury shares and will be available for issuance under the Company's stock option plans, employees stock purchase plan and other stock benefit plans.

At August 1, 1998, the Company's principal sources of liquidity were \$300 million of cash and cash equivalents and short-term investments. In addition, the Company has various lines of credit both in the U.S. and overseas, including a $\$ 60$ million credit facility in the U.S. which expires in 2000, all of which were substantially unused at August 1, 1998. At August 1, 1998, the Company's debt-to-equity ratio was $30 \%$.

The Company believes that its existing sources of liquidity and cash expected to be generated from future operations, together with current and anticipated available long-term financing, will be sufficient to fund operations, capital expenditures and research and development efforts for the foreseeable future.

## Factors Which May Affect Future Results

The Company's future operating results are difficult to predict and may be affected by a number of factors including the timing of new product announcements or introductions by the Company and its competitors, competitive pricing pressures, fluctuations in manufacturing yields, adequate availability of wafers and manufacturing capacity, changes in product mix and economic conditions in the United States and international markets. In addition, the semiconductor market has historically been cyclical and subject to significant economic downturns at various times. This can cause customer and distributor inventory levels to fluctuate and can disrupt the order patterns from both customers and distributors. The Company is exposed to the risk of obsolescence of its inventory depending on the mix of future business. As a result of these and other factors, there can be no assurance that the Company will not experience material fluctuations in future operating results on a quarterly or annual basis.

The Company's success depends in part on its continued ability to develop and market new products. There can be no assurance that the Company will be able to develop and introduce new products in a timely manner or that such products, if developed, will achieve market acceptance. In addition, the Company's growth is dependent on its continued ability to penetrate new markets such as the communications, computer and automotive segments of the electronics market, where the Company has limited experience and competition is intense. There can be no assurance that the markets being served by the Company will grow in the future; that the Company's existing and new products will meet the requirements of such markets; that the Company's products will achieve customer acceptance in such markets; that competitors will not force prices to an unacceptably low level or take market share from the Company; or that the Company can achieve or maintain profits in these markets. Also, some of the customers in these markets are less well established which could subject the Company to increased credit risk.

The semiconductor industry is intensely competitive. Certain of the Company's competitors have greater technical, marketing, manufacturing and financial resources than the Company. The Company's competitors also include emerging
companies attempting to sell products to specialized markets currently served by the Company. Competitors of the Company have, in some cases, developed and marketed products having similar design and functionality as the Company's products. There can be no assurance that the Company will be able to compete successfully in the future against existing or new competitors or that the Company's operating results will not be adversely affected by increased price competition.

The Company has substantially increased its manufacturing capacity through both expansion of its production facilities and increased access to third-party foundries; there can be no assurance that the Company will not encounter unanticipated production problems at either its own facilities or at third-party foundries; or if the demand were to increase significantly that the increased capacity would be sufficient to satisfy demand for its products. The Company relies, and plans to continue to rely, on assembly and test subcontractors and on third-party wafer fabricators to supply most of its wafers that can be manufactured using industry-standard digital processes, and such reliance involves several risks, including reduced control over delivery schedules, manufacturing yields and costs. In addition, the Company's capacity additions will result in a significant increase in operating expenses, and if revenue levels do not increase to offset these additional expense levels, the Company's future operating results could be adversely affected, including the potential adverse impact in operating results for "take or pay" covenants in certain of its supply agreements. While the Company tries to ensure that its manufacturing capacity and demand for its products are in relative balance, no assurance can be given that from time to time an imbalance between the Company's manufacturing capacity and the demand for its products would not occur. Any such imbalance could adversely affect the Company's consolidated results of operations.

For the first nine months of fiscal 1998, 51\% of the Company's revenues were derived from customers in international markets. The Company has manufacturing facilities outside the U.S., in Ireland, the Philippines and Taiwan. The Company also has supply agreements that include "take or pay" covenants with suppliers located in Southeast Asia ("SEA") and as part of these arrangements, the Company has $\$ 26$ million on deposit with two of these suppliers. The Company also has a $\$ 21$ million investment with one of these suppliers. In addition, the Company's has invested $\$ 140$ million in its joint venture, WaferTech (located in Camas, Washington), the major partner is TSMC which is located in Taiwan. The Company is therefore subject to the economic and political risks inherent in international operations, including risks associated with the ongoing uncertainties in the economies in SEA. These risks include air transportation disruptions, expropriation, currency controls and changes in currency exchange rates, tax and tariff rates and freight rates. Although the Company engages in certain hedging transactions to reduce its exposure to currency exchange rate fluctuations, there can be no assurance that the Company's competitive position will not be adversely affected by changes in the exchange rate of the U.S. dollar against other currencies.

The semiconductor industry is characterized by frequent claims and litigation involving patent and other intellectual property rights. The Company has from time to time received, and may in the future receive, claims from third parties asserting that the Company's products or processes infringe their patents or other intellectual property rights. In the event a third party makes a valid intellectual property claim and a license is not available on commercially reasonable terms, the Company's operating results could be materially and adversely affected. Litigation may be necessary to enforce patents or other intellectual property rights of the Company or to defend the Company against claims of infringement, and such litigation can be costly and divert the attention of key personnel. See the Company's Annual Report on Form 10-K for the fiscal year ended November 1, 1997 for information concerning certain pending litigation involving the Company. An adverse outcome in such litigation, may, in certain cases, have a material adverse effect on the Company's consolidated financial position or on its consolidated results of operations or cash flows in the period in which the litigation is resolved.

The Company has year 2000 compliant software on many of its major platforms, including its financial and order entry systems. However, the Company has made the year 2000 issue a significant priority and a task force is engaged in the ongoing effort to reduce the year 2000 related risk in the balance of the Company's systems and equipment.

The task force's efforts are concentrated in six separate areas, as outlined below:

## Centrally Managed Global Systems

These systems have been split into "Mission Critical" and "Non-Mission Critical". Mission critical is defined as systems that can seriously impair the Company's ability to conduct its business. There were 15 mission critical applications identified and as of August 31, $199880 \%$ of these are year 2000 compliant. The task force is addressing the remaining $20 \%$ and it is currently expected that they will be compliant during the first half of fiscal 1999. Non-mission critical is defined as systems which would not cause serious impairment to the organization. The task force is continually reviewing and re-prioritizing the remaining systems to ensure that the appropriate items are receiving the proper attention.

## Design and Engineering Systems

The Corporate CAD (Computer Aided Design) Council is leading a worldwide year 2000 compliancy review of hardware and software related to the design and engineering systems. As of August 31, 1998 this review was $90 \%$ complete and decisions have been made to migrate to year 2000 compliant operating systems during the first half of fiscal 1999.

## Site Based Manufacturing Systems

Manufacturing site managers are committed to ensuring a successful transition of operations in the year 2000. Year 2000 is a standard agenda item for all manufacturing review meetings. All critical manufacturing systems are in the process of being reviewed for year 2000 compliancy. The review process includes, but is not limited to, ensuring date compliance is necessary, meeting with vendors to determine if there is a fix available, and making decisions as to whether or not a new, date compliant piece of equipment should be purchased. In some instances the Company is considering "rolling back" the internal date mechanism as a contingency for some equipment, and the task force is in the process of testing the effects of this solution.

## Personal Computers

The Company has a PC Standards Committee, comprised of participants from each site. This committee has developed methodology to review hardware and software compliance for all of the Company's 3,500 networked PC's. The Company does not foresee any year 2000 issues in this area.

## Facility Related Systems

Systems such as heating, sprinklers, elevators, and card-key access are also being reviewed by site teams. Each team has a designated facilitator and there are representatives from each department participating. All of the teams have taken a thorough inventory of their site's systems and steady progress is being made in addressing any year 2000 issues.

## Third Party

The Corporate year 2000 task force is also reviewing third-party systems. For the Company's Electronic Data Interchange ("EDI") systems, all partners were surveyed and the Company believes it will be able to support all of its EDI partners. For external elements on which the Company is dependent, the Company has received confirmation from suppliers that they will be compliant in the first half of fiscal 1999. If they are not compliant at that time the Company has plans in place to convert to another year 2000 compliant vendor.

Other external service providers, primarily financial and human resource services, have also been surveyed. Ninety percent of the surveys were returned and most expect to be year 2000 compliant. For systems which are not expected to be year 2000 compliant the Company is in the process of developing contingency plans. The Company is in the process of surveying its outside vendors as to the state of their readiness.

Summary
Because hundreds of people are spending a portion of their time on the project, it is difficult to calculate the cost of these efforts with any precision. It is estimated that this project is costing approximately $\$ 5$ million per year for fiscal 1998 and fiscal 1999. The Company presently believes that the year 2000 issue will not pose significant operational problems. However, year 2000 issues could have a significant impact on the Company's operations and its financial results if modifications cannot be completed on a timely basis; unforeseen needs or problems arise; or, if the systems operated by third parties are not year 2000 compliant.

Other Considerations
Because of these and other factors, past financial performance should not be considered an indicator of future performance. Investors should not use historical trends to anticipate future results and should be aware that the trading price of the Company's common stock may be subject to wide fluctuations in response to quarter-to-quarter variations in operating results, general conditions in the semiconductor industry, changes in earnings estimates and recommendations by analysts or other events.

Item 3. Quantitative and Qualitative Disclosures about Market Risk
Information concerning market risk is contained on page 5 of the Company's 1997 Annual Report to Shareholders and is incorporated herein by reference.

PART II - OTHER INFORMATION ANALOG DEVICES, INC.

Item 6. Exhibits and reports on Form 8-K
(a) See Exhibit Index
(b) There were no reports on Form 8-K filed for the three months ended August 1, 1998.

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

## Analog Devices, Inc.

(Registrant)

By: /s/ Jerald G. Fishman Jerald G. Fishman President and Chief Executive Officer (Principal Executive Officer)

By: /s/ Joseph E. McDonough Joseph E. McDonough Vice President-Finance and Chief Financial Officer (Principal Financial and Accounting Officer)

EXHIBIT INDEX
Analog Devices, Inc.

1,000
U.S. DOLLARS
Asset value represents net amount

