

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

MKS Instruments, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement)

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

1) Title of each class of securities to which transaction applies:

2) Aggregate number of securities to which transaction applies:

3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):

4) Proposed maximum aggregate value of transaction:

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Fee paid previously with preliminary materials.

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3) Filing Party:

4) Date Filed:



MKS INSTRUMENTS, INC.
90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

March 28, 2007

Dear shareholder:

You are cordially invited to attend the Annual Meeting of Shareholders of MKS Instruments, Inc. ("MKS" or the "Company") to be held on Monday, May 7, 2007, at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887.

The enclosed notice of Annual Meeting and proxy statement describe the business to be transacted at the Annual Meeting and provide additional information about the Company that you should know when voting your shares. The principal business at the Annual Meeting will be to elect Class II Directors and ratify the selection of the independent registered public accounting firm for fiscal 2007.

Whether or not you plan to attend the Annual Meeting, please complete, date, sign and return your Proxy Card promptly in the enclosed envelope, which requires no postage if mailed in the United States. If you attend the Annual Meeting, you may vote in person if you wish, even if you have previously returned your Proxy Card.

On behalf of MKS, I would like to express our appreciation for your continued interest in the Company.

Sincerely,

Leo Berlinghieri
Chief Executive Officer and President



MKS INSTRUMENTS, INC.
90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

**NOTICE OF 2007 ANNUAL MEETING OF SHAREHOLDERS
TO BE HELD ON MAY 7, 2007**

To the shareholders:

NOTICE IS HEREBY GIVEN that the 2007 Annual Meeting of Shareholders of MKS INSTRUMENTS, INC. (the "Company"), a Massachusetts corporation, will be held on Monday, May 7, 2007 at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887. At the meeting, shareholders will consider and vote on the following matters:

1. To elect two Class II Directors, each for a three year term; and
2. To ratify the selection of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm for the year ending December 31, 2007.

The shareholders will also act on any other business as may properly come before the meeting.

The Board of Directors has fixed the close of business on March 2, 2007 as the record date for the determination of shareholders entitled to notice of, and to vote at, the Annual Meeting and any adjournment or adjournments thereof. The stock transfer books of the Company will remain open for the purchase and sale of the Company's Common Stock.

A copy of the Company's Annual Report to Shareholders for the year ended December 31, 2006, which contains consolidated financial statements and other information of interest to shareholders, accompanies this Notice and the enclosed Proxy Statement.

If you would like to attend the Annual Meeting and your shares are held by a broker, bank or other nominee, you must bring to the Annual Meeting a letter from the nominee confirming your beneficial ownership of such shares. In order to vote your shares at the Annual Meeting, you must obtain from the nominee a proxy issued in your name. You must also bring a form of personal identification.

By Order of the Board of Directors,

Richard S. Chute
Secretary

Wilmington, Massachusetts
March 28, 2007

IMPORTANT

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING IN PERSON, PLEASE PROMPTLY SIGN, DATE, AND RETURN THE ENCLOSED PROXY. PROMPTLY SIGNING, DATING, AND RETURNING THE PROXY WILL SAVE THE COMPANY THE EXPENSE AND EXTRA WORK OF ADDITIONAL SOLICITATION. AN ADDRESSED ENVELOPE FOR WHICH NO POSTAGE IS REQUIRED IF MAILED IN THE UNITED STATES IS ENCLOSED FOR THAT PURPOSE. SENDING IN YOUR PROXY WILL NOT PREVENT YOU FROM VOTING YOUR STOCK AT THE ANNUAL MEETING IF YOU DESIRE TO DO SO, AS YOUR PROXY IS REVOCABLE AT YOUR OPTION.

MKS INSTRUMENTS, INC.
90 INDUSTRIAL WAY
WILMINGTON, MASSACHUSETTS 01887

PROXY STATEMENT

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors of MKS Instruments, Inc. (the "Company" or "MKS"), a Massachusetts corporation, for use at the 2007 Annual Meeting of Shareholders to be held on May 7, 2007, at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, Massachusetts 01887, and at any adjournment or postponement thereof (the "Annual Meeting").

All proxies will be voted in accordance with the shareholders' instructions. If no choice is specified in the proxy, the shares will be voted in favor of the matters set forth in the accompanying Notice of 2007 Annual Meeting of Shareholders. Any proxy may be revoked by a shareholder at any time before its exercise by delivery of written revocation to the Secretary of the Company. Attendance at the Annual Meeting will not in itself be deemed to revoke a Proxy unless the shareholder gives affirmative notice at the Annual Meeting that the shareholder intends to revoke the proxy and vote in person.

VOTING SECURITIES AND VOTES REQUIRED

At the close of business on March 2, 2007, the record date for the determination of shareholders entitled to notice of and to vote at the Annual Meeting, there were issued and outstanding and entitled to vote 57,230,568 shares of common stock, no par value per share, of the Company (the "Common Stock"). Each share entitles the record holder to one vote on each matter submitted at the Annual Meeting.

Under the Company's Amended and Restated By-Laws (the "By-Laws"), the holders of a majority of the shares of Common Stock issued and outstanding and entitled to vote at the Annual Meeting shall constitute a quorum for the transaction of business at the Annual Meeting. Shares of Common Stock present in person or represented by proxy (including "broker non-votes" and shares that abstain or do not vote with respect to a particular proposal to be voted upon) will be counted for purposes of determining whether a quorum exists at the Annual Meeting.

The affirmative vote of the holders of a plurality of the shares of Common Stock voting on the matter is required for the election of Directors. The ratification of PricewaterhouseCoopers LLP ("PwC") requires the approval of the holders of a majority of the shares of Common Stock present or represented by proxy at the Annual Meeting and voting on the matter.

Shares held by shareholders who abstain from voting as to a particular matter, and "broker non-votes," which are shares held in "street name" by banks, brokers or nominees, who indicate on their proxies that they do not have discretionary authority to vote such shares as to a particular matter, will not be counted as votes in favor of such matter, and also will not be counted as shares voting on such matter. Accordingly, abstentions and broker non-votes will have no effect on the voting on a matter that requires the affirmative vote of a certain percentage of the shares voting on the matter. If the shares you own are held in street name by a bank or brokerage firm, your bank or brokerage firm, as the record holder of your shares, is required to vote your shares according to your instructions. In order to vote your shares, you will need to follow the directions your bank or brokerage firm provides you.

THE NOTICE OF ANNUAL MEETING, THIS PROXY STATEMENT AND THE COMPANY'S ANNUAL REPORT TO SHAREHOLDERS FOR THE YEAR ENDED DECEMBER 31, 2006 ARE BEING MAILED TO SHAREHOLDERS ON OR ABOUT APRIL 2, 2007. A COPY OF THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2006 AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION (THE "COMMISSION"), EXCLUDING EXHIBITS, WILL BE FURNISHED WITHOUT CHARGE TO ANY SHAREHOLDER UPON WRITTEN REQUEST TO: INVESTOR RELATIONS DEPARTMENT, MKS INSTRUMENTS, INC., 90 INDUSTRIAL WAY, WILMINGTON, MA 01887. EXHIBITS WILL BE PROVIDED UPON WRITTEN REQUEST AND PAYMENT OF AN APPROPRIATE PROCESSING FEE.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of Common Stock by (i) each current director of the Company; (ii) the executive officers named in the Summary Compensation Table below; (iii) each shareholder known to the Company to be the beneficial owner of more than 5% of the outstanding shares of Common Stock; and (iv) all directors and executive officers of the Company as a group. Unless otherwise indicated in the footnotes to the table, (i) all information set forth in the table is as of January 31, 2007; and (ii) the address for each director and executive officer of the Company is: c/o MKS Instruments, Inc., 90 Industrial Way, Wilmington, Massachusetts 01887.

Name of Beneficial Owners	Number of Shares Beneficially Owned(1)	Percentage of Common Stock Beneficially Owned
<i>Named Executive Officers</i>		
Leo Berlinghieri	475,703(2)	*
Ronald C. Weigner	348,098(3)	*
John R. Bertucci	6,464,666(4)	11.4%
Gerald G. Colella	271,251(5)	*
William D. Stewart	302,663(6)	*
<i>Directors Not Included Above</i>		
Robert R. Anderson	113,572(7)	*
Gregory R. Beecher	3,333(8)	*
James G. Berges	0	*
Richard S. Chute	71,405(8)	*
Hans-Jochen Kahl	29,806(9)	*
Owen W. Robbins	70,500(8)	*
Louis P. Valente	72,310(10)	*
<i>Other 5% shareholders</i>		
Barclays Global Investors 45 Fremont Street San Francisco, CA 94105	3,545,539(11)	6.2%
Dimensional Fund Advisors LP 1299 Ocean Avenue, 11th Floor Santa Monica, CA 90401	3,734,200(12)	6.6%
FMR Corp. 82 Devonshire Street Boston, MA 02109	6,808,900(13)	12.0%
All directors and officers as a group (16 persons)	8,690,790(14)	14.8%

* Represents less than 1% of the outstanding Common Stock.

- (1) The Company believes that each shareholder has sole voting and investment power with respect to the shares listed, except as otherwise noted. The number of shares beneficially owned by each shareholder is determined under rules of the Securities and Exchange Commission (the "Commission"), and the information is not necessarily indicative of ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the person has sole or shared voting power or investment power and also any shares that the individual has the right to acquire within 60 days of January 31, 2007 through the exercise of any stock option or other right. The inclusion herein of any shares of Common Stock deemed beneficially owned does not constitute an admission by such shareholder of beneficial ownership of those shares of Common Stock. Shares of Common Stock which an individual or entity has a right to acquire within the 60-day period following January 31, 2007 pursuant to the exercise of options or warrants are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or entity, but are not deemed to be outstanding for

the purpose of computing the percentage ownership of any other person or entity shown in the table. Exercisable options include those options that were accelerated by the Company on January 7, 2006.

- (2) Consists of 62,500 shares held directly by Mr. Belinghieri and 413,302 shares subject to options exercisable within 60 days of January 1, 2007.
- (3) Consists of 10,000 shares held directly by Mr. Weigner and 338,098 shares subject to options exercisable within 60 days of January 31, 2007.
- (4) Consists of 3,086,580 shares held directly by Mr. Bertucci, 3,371,784 shares held directly by Mr. Bertucci's wife and 16,302 shares subject to options exercisable within 60 days of January 31, 2007.
- (5) Consists of 14,024 shares held directly by Mr. Colella and 257,227 shares subject to options exercisable within 60 days of January 31, 2007.
- (6) Consists of 12,663 shares held directly by Mr. Stewart and 290,000 shares subject to options exercisable within 60 days of January 31, 2007.
- (7) Consists of 40,000 shares held directly by Mr. Anderson, 11,503 shares held in trust and other accounts and 62,069 shares subject to options exercisable within 60 days of January 31, 2007.
- (8) Consists solely of options exercisable within 60 days of January 31, 2007.
- (9) Consists of 2,987 shares held directly by Mr. Kahl and 26,819 shares subject to options exercisable within 60 days of January 31, 2007.
- (10) Consists of 1,810 shares held directly by Mr. Valente and 70,500 shares subject to options exercisable within 60 days of January 31, 2007.
- (11) Based on information set forth in Schedule 13G filed by Barclays Global Investors on behalf of itself and its affiliates, on January 23, 2007, reporting stock ownership as of December 31, 2006.
- (12) Based on information set forth in Schedule 13G/A filed by Dimensional Fund Advisors LP on February 9, 2007, reporting stock ownership as of December 31, 2006, in which Dimensional Fund Advisors, Inc. disclaims beneficial ownership of such securities.
- (13) Based on information set forth in Schedule 13G/A filed by FMR Corp. with the Commission on February 14, 2007, reporting stock ownership as of December 31, 2006.
- (14) Consists of 6,709,582 outstanding shares beneficially held by such persons and 1,981,208 shares subject to options exercisable within 60 days of January 31, 2007.

To the knowledge of the Company, there are no voting trusts or similar arrangements among any of the foregoing persons or entities with respect to the voting of shares of Common Stock of the Company, except as set forth above.

PROPOSAL ONE
ELECTION OF DIRECTORS

The By-Laws of the Company provide for a Board of Directors that is divided into three classes. The term of the Class I Directors expires at the 2009 Annual Meeting, the term of the Class II Directors expires at the 2007 Annual Meeting and the term of the Class III Directors expires at the 2008 Annual Meeting. Cristina H. Amon and Richard S. Chute are currently proposed for election to serve as Class II Directors. Each nominee has consented to being named herein, and, if elected, to serve as a director until his or her successor is duly elected and qualified.

Shares represented by all proxies received by the Board of Directors and not so marked as to withhold authority to vote for an individual director will be voted (unless one or more nominees are unable or unwilling to serve) for the election of the nominees named below. The Board of Directors expects that each of the nominees named below will be available for election, but if any of them is not a candidate at the time the election occurs, it is intended that such proxies will be voted for the election of a substitute nominee to be designated by the Board of Directors.

BOARD RECOMMENDATION

THE BOARD OF DIRECTORS BELIEVES THAT APPROVAL OF THE ELECTION OF CRISTINA H. AMON AND RICHARD S. CHUTE TO SERVE AS CLASS II DIRECTORS IS IN THE BEST INTERESTS OF MKS AND ITS SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

DIRECTORS

Set forth below are the names and ages of each member of the Board of Directors (including those who are nominees for election as Class II Directors) and the positions and offices held, principal occupation and business experience during the past five years, the names of other publicly held companies of which the individual serves as a director and the year of commencement of the term as director of MKS. Information with respect to the number of shares of Common Stock beneficially owned by each director, directly or indirectly, as of January 31, 2007, appears in this proxy statement under the heading "Security Ownership of Certain Beneficial Owners and Management." Effective as of December 31, 2006, John R. Bertucci retired as our Executive Chairman of the Board of Directors. Mr. Bertucci will remain with the Company as the Chairman of the Board of Directors and will continue to consult for the Company, as needed, for a one-year period. James G. Berges and Owen W. Robbins will retire from the Board of Directors immediately prior to the Annual Meeting. The Board of Directors, upon the recommendation of the Nominating and Corporate Governance Committee, has nominated Cristina H. Amon, along with Richard S. Chute, who is currently a director, to serve as Class II directors.

Name	Age	Position	Class to Which Director Belongs
John R. Bertucci	66	Director, Chairman	III
*Cristina H. Amon	50	Director Nominee	II
Robert R. Anderson(1)(3)	69	Director	III
Gregory R. Beecher(1)	49	Director	III
**James G. Berges(3)	59	Director	II
Leo Berlinghieri	53	Director, Chief Executive Officer and President	I
*Richard S. Chute(2)	68	Director, Secretary	II
Hans-Jochen Kahl(2)	67	Director	I
**Owen W. Robbins(1)(2)	77	Director	II
Louis P. Valente(1)(3)	76	Director	I

(1) Member of Audit Committee

(2) Member of Nominating and Corporate Governance Committee

(3) Member of Compensation Committee

* Nominee for election at this meeting

** Retiring from the Board of Directors immediately prior to the Annual Meeting

John R. Bertucci

Mr. Bertucci has served as a director of MKS since 1974. He has been Chairman of the Board of Directors since November 1995, serving as Executive Chairman from July 2005 until December 2006. In connection with his retirement as Executive Chairman, Mr. Bertucci has agreed to be available for consultation with the Company for up to ten hours per month until December 31, 2007. Mr. Bertucci served as Chief Executive Officer of MKS from November 1995 to July 2005 and served as President from 1974 to May 1999 and again from November 2001 to April 2004. From 1970 to 1974, he was Vice President and General Manager of MKS. Mr. Bertucci has an M.S. in Industrial Administration and a B.S. in Metallurgical Engineering from Carnegie-Mellon University. Mr. Bertucci is a member of the Board of Trustees of Carnegie-Mellon University and is Chairman of the Executive Board of The Massachusetts High Technology Council. Mr. Bertucci retired as our Executive Chairman of the Board of Directors effective as of December 31, 2006.

Cristina H. Amon

Ms. Amon has served as the Dean, Faculty of Applied Science and Engineering, Alumni Chair Professor of Bioengineering and a member of the Department of Mechanical and Industrial Engineering at the University of Toronto since July 2006. Prior to that, Ms. Amon served at Carnegie-Mellon University, as Director of the Institute for Complex Engineered Systems (ICES) from September 1999 until July 2006, and was a Raymond Lane

Distinguished Professor, Mechanical Engineering and Biomedical Engineering from September 2001 until July 2006. Ms. Amon is the retiring Engineering Chair and is the electorate Nominating Committee Chair for the American Association for the Advancement of Science (AAAS) and an Executive Board Member of the American Society of Mechanical Engineers (ASME), Electronic and Photonic Packaging division. She also serves on the External Advisory Boards for the NSF CREST Center for Mesoscopic Modeling and Simulation at the City University of New York, The City College, and for the Department of Mechanical and Aerospace Engineering at the University of Texas. She is a member of the NAE (National Academy of Engineering) and Fellow of AAAS, ASEE, ASME and IEEE.

Robert R. Anderson

Mr. Anderson has served as a director of MKS since January 2001. Mr. Anderson is a private investor. From October 1998 to October 2000, Mr. Anderson served as Chairman of Yield Dynamics, Inc., a private semiconductor control software company. He also served as CEO of Yield Dynamics from October 1998 to April 2000. Mr. Anderson also served as CEO of Silicon Valley Research, Inc., a semiconductor design automation software company, from December 1996 to August 1998 and as Chairman from January 1994 to January 2001. Mr. Anderson currently serves as Chairman of the Board of Directors, Chairman of the Audit Committee and a member of the Nominating and Corporate Governance Committee of Aviza Technology, Inc., a manufacturer of semiconductor process equipment. He also serves as a director, Chairman of the Audit Committee and member of the Compensation Committee of Aehr Test Systems, Inc., a manufacturer of semiconductor test and burn-in equipment. He also serves as a director of two private companies.

Gregory R. Beecher

Mr. Beecher has served as a director of MKS since August 2006. Mr. Beecher has served as CFO of Teradyne, Inc., a semiconductor and system level test equipment provider, since 2001. He was a Partner with PricewaterhouseCoopers LLP from October 1993 to March 2001, working with numerous semiconductor equipment and instruments providers, along with other technology related enterprises.

James G. Berges

Mr. Berges has served as a director of MKS since February 2002. He is currently a Partner at Clayton, Dubilier & Rice, Inc., a private equity investment firm and the Chairman of Sally Beauty Holdings. He served as President of Emerson Electric Co. from 1999 until November 2005.

Leo Berlinghieri

Mr. Berlinghieri has served as a director of MKS and as Chief Executive Officer and President since July 2005. He previously served as President and Chief Operating Officer from April 2004 to July 2005, and as Vice President and Chief Operating Officer from July 2003 until April 2004. From November 1995 to July 2003, he served as Vice President, Global Sales and Service. From 1980 to November 1995, he served in various management positions of MKS, including Manufacturing Manager, Production and Inventory Control Manager, and Director of Customer Support Operations.

Richard S. Chute

Mr. Chute has served as a director of MKS since 1974. Mr. Chute was a member of the law firm of Hill & Barlow, a Professional Corporation, from 1971 to January 2003, and is currently an attorney in private practice. Mr. Chute serves as a director of two non-profit corporations.

Hans-Jochen Kahl

Mr. Kahl has served as a director of MKS since January 2001. From June 1994 through September 1996, Mr. Kahl served as a consultant to Ebara, a Japanese manufacturer of industrial water pumps and vacuum process equipment for the semiconductor industry. Mr. Kahl was employed by Leybold AG, formerly Leybold-Heraeus GmbH, a leading international manufacturer of vacuum pumps and other vacuum process equipment for the semiconductor industry, from July 1983 to March 1992, where he served as a managing director and was primarily responsible for sales, marketing and strategic planning. From September 1995 to November 2000, he was a director

of Applied Science and Technology, Inc. (ASTeX) which was acquired by MKS. Since November 1996, he has served as a director of Solid State Management, a privately held manufacturer of high precision measurement tools.

Owen W. Robbins

Mr. Robbins has served as a director of MKS since February 1996. Mr. Robbins has been an independent investor since July 1997. Mr. Robbins was Executive Vice President of Teradyne, Inc., a semiconductor and system level test equipment provider, from March 1992 to May 1997, and its Chief Financial Officer from February 1980 to May 1997. Mr. Robbins is also a director of two privately held companies.

Louis P. Valente

Mr. Valente has served as a director of MKS since February 1996. Mr. Valente is Chairman of Palomar Medical Technologies, Inc., a company which designs, manufactures and markets cosmetic lasers, since September 1997. He has been a director of Palomar Medical Technologies, Inc. since February 1997 and was its President and Chief Executive Officer from May 1997 to May 2002. Mr. Valente is also a director of Surgilight, Inc., Medical Information Technology, Inc. and a privately held medical company.

Agreements as to Nomination

Mr. Bertucci's employment agreement provided that if Mr. Bertucci resigned from his employment, then, subject to applicable law, the Company's by-laws and articles of organization and the directors' fiduciary duties, the Board of Directors shall nominate Mr. Bertucci for election as a Class III director and consider Mr. Bertucci for appointment as Chairman of the Board, until such time as Mr. Bertucci is no longer eligible for nomination as a director. Mr. Bertucci resigned from his employment effective December 31, 2006.

CORPORATE GOVERNANCE

Board of Directors Meetings and Committees of the Board of Directors

The Board of Directors has determined that all of the members of the Board of Directors, other than Mr. Bertucci and Mr. Berlinghieri, are independent as defined under the rules of the NASDAQ Stock Market.

The Board of Directors held four meetings in 2006. Each director attended at least 75% of the aggregate of the total number of meetings of the Board of Directors and the total number of meetings of all committees of the Board of Directors on which he served. Pursuant to the Company's Corporate Governance Guidelines, directors are encouraged to attend annual meetings of shareholders. Messrs. Bertucci, Berlinghieri, Anderson, Berges, Chute, Kahl, Robbins and Valente attended the 2006 annual meeting of shareholders.

The Board of Directors has established three standing committees — Audit, Compensation and Nominating and Corporate Governance — each of which operates under a charter that has been approved by the Board of Directors. Each committee's current charter is posted in the Investors link on the Company's website, www.mksinstruments.com, under the heading Corporate Governance.

Compensation Committee

The Compensation Committee consists of Messrs. Anderson, Berges (Chairman) and Valente. The Compensation Committee's responsibilities include:

- determining the CEO's compensation;
- reviewing and approving, or making recommendations to the Board of Directors with respect to, the compensation of the Company's other executive officers;
- annually reviewing and approving the Company's management incentive bonus plan;
- reviewing the Compensation Discussion and Analysis required to be included in the annual proxy statement;
- overseeing and administering the Company's equity incentive plans; and

- reviewing and making recommendations to the Board of Directors with respect to director compensation.

The Compensation Committee held three meetings in 2006.

Audit Committee

The Audit Committee consists of Messrs. Anderson, Beecher, Robbins and Valente (Chairman). The Audit Committee's responsibilities include:

- appointing, approving the fees of and assessing the independence of, the Company's independent registered public accounting firm;
- overseeing the work of the Company's independent registered public accounting firm, including through the receipt and consideration of certain reports from the independent registered public accounting firm;
- reviewing and discussing the Company's annual audited financial statements and related disclosures with management and the independent registered public accounting firm;
- reviewing the Company's quarterly unaudited financial statements;
- coordinating oversight of the Company's internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing the Company's internal audit function;
- establishing procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with the Company's internal auditing staff, independent registered public accounting firm and management;
- reviewing any related party transactions; and
- preparing the Audit Committee report required by Commission rules (which is included on page 27 of this proxy statement).

The Audit Committee held eight meetings in 2006.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee consists of Messrs. Chute (Chairman), Kahl and Robbins. The Nominating and Corporate Governance Committee's responsibilities include:

- identifying individuals qualified to become members of the Board of Directors;
- recommending to the Board of Directors the persons to be nominated for election as directors and to each of the Board's committees; and
- developing and recommending corporate governance principles to the Board of Directors.

The Nominating and Corporate Governance Committee held four meetings in 2006.

For information relating to the nomination of directors, see "— Director Candidates" below.

Audit Committee Financial Expert

The Board of Directors has determined that each of the four members of the Audit Committee is an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-K.

Director Candidates

The Nominating and Corporate Governance Committee recommended to the Board of Directors that the director nominees be nominated by the Board of Directors for election as Class II directors. The process to be followed by the Nominating and Corporate Governance Committee to identify and evaluate director candidates

includes requests to Board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the Committee and the Board of Directors.

In considering whether to recommend any particular candidate for inclusion in the Board of Directors' slate of recommended director nominees, the Nominating and Corporate Governance Committee applies the criteria attached to the Committee's charter. These criteria include the candidate's integrity, business acumen, knowledge of the Company's business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all shareholders. Nominees should generally be under the age of 75 at the time of nomination. The Committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. The Company believes that the backgrounds and qualifications of its directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities.

Shareholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the shareholder or group of shareholders making the recommendation has beneficially owned more than 5% of the Company's Common Stock for at least a year as of the date such recommendation is made, to the Nominating and Corporate Governance Committee, in care of Kathleen F. Burke, Esq., General Counsel, MKS Instruments, Inc., 90 Industrial Way, Wilmington, MA 01887. Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating and Corporate Governance Committee will evaluate shareholder-recommended candidates by following substantially the same process, and applying the same criteria, as it does in considering other candidates.

Shareholders also have the right under the Company's By-Laws to directly nominate director candidates, without any action or recommendation on the part of the Nominating and Corporate Governance Committee or the Board of Directors, by following the procedures set forth under the heading "Deadline for Submission of Shareholder Proposals for the 2008 Annual Meeting" below.

Communications from Shareholders

The Board of Directors will give appropriate attention to written communications that are submitted by shareholders, and will respond if appropriate.

The Chairman of the Nominating and Corporate Governance Committee, with the assistance of the Company's General Counsel, is primarily responsible for monitoring communications from shareholders and for providing copies or summaries to the other directors as he considers appropriate.

Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the Chairman of the Nominating and Corporate Governance Committee considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which the Company tends to receive repetitive or duplicative communications.

Shareholders who wish to send communications on any topic to the Board of Directors should address such communications to the Board of Directors in care of Kathleen F. Burke, Esq., General Counsel, MKS Instruments, Inc., 90 Industrial Way, Wilmington, MA 01887.

Code of Ethics

Pursuant to Section 406 of the Sarbanes Oxley Act of 2002, MKS has adopted a written code of business conduct and ethics that applies to all of the Company's directors, officers and employees (including the principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions), which is posted in the Investors link on the Company's website, www.mksinstruments.com, under the heading Corporate Governance. MKS intends to disclose any amendments to, or waivers from, the Company's code of business conduct and ethics on MKS's website.

Compensation Committee Interlocks and Insider Participation

In 2006, the Compensation Committee comprised Messrs. Anderson, Berges and Valente. Mr. Kahl served on the committee until May 2006, when Mr. Berges replaced him. None of the members were, at any time, officers or employees of MKS or any subsidiary of MKS, and none of them had any relationship with MKS requiring disclosure under Item 404 of Regulation S-K under the Securities Exchange Act of 1934, as amended. No executive officer of MKS serves, or has served, as a member of the Board of Directors or Compensation Committee (or other committee serving an equivalent function) of any other entity which has one or more executive officers serving as a member of MKS's Board of Directors or Compensation Committee.

EXECUTIVE OFFICERS

The following is a brief summary of the background of each executive officer of MKS, other than Mr. Berlinghieri, whose background is described under the heading "Directors" above:

Gerald G. Colella, Vice President and Chief Business Officer, Age 50

Mr. Colella has served as Vice President and Chief Business Officer since April 2005 and served as Vice President, Global Business and Service Operations from October 1997 to April 2005. From March 1996 to October 1997, he served as Director of Materials Planning and Logistics, and from February 1994 to March 1996, he served as Materials Planning and Logistics Manager. Mr. Colella joined MKS in April 1983 as Purchase Contract Administrator. He holds an M.B.A. from Southern New Hampshire University, Manchester, New Hampshire, as well as a B.A. in Secondary Education from the University of Lowell, Lowell, Massachusetts.

Ron Hadar, Vice President and General Manager, CIT Products, Age 45

Mr. Hadar has served as Vice President and General Manager, CIT Products since September 2004. He served as General Manager of Tenta Products, which later became CIT Products, from April 2002 through September 2004. In 1999, Mr. Hadar co-founded and became CEO of Tenta Technology, Ltd., which MKS acquired in March 2002. Mr. Hadar was employed by Applied Materials Israel from 1993 through 1998, most recently as U.S. Operations Manager of the electronic department. Mr. Hadar has a Project Administration certificate from the Recanati School of Business Administration of Tel Aviv University, an Associate Engineer degree from the Technical College of Tel Aviv University and a Communication Systems Technician certificate from the Israeli Air Force Technical College.

Robert L. Klimm, Vice President and General Manager, Power and Reactive Gas Products Group, Age 56

Mr. Klimm has served as Vice President and General Manager, Power and Reactive Gas Products Group, since September 2002. Prior to this position, he served as Vice President and General Manager of the ASTeX Products Group from August 2001 to September 2002 and of the Materials Delivery and Analysis Products Group from December 1999 to August 2001. Before joining MKS, Mr. Klimm was Vice President and General Manager of the Factory Automation Division of PRI Automation from 1997 to September 1999. Mr. Klimm has an M.B.A. from the Sloan School at MIT, an M.A. in electrical engineering from Northeastern University and a B.S. in electrical engineering from Lehigh University.

Frank W. Schneider, Vice President and General Manager, Ion Systems, Age 65

Mr. Schneider has served as Vice President and General Manager, Ion Systems since January 2006. He was President and Chief Executive Officer of Ion Systems, Inc. from October 2003 until MKS acquired Ion in January 2006. From January 2002 to February 2003, he was Vice President and General Manager of the RF Power Group for Advanced Power Tech, Inc. and from August 1997 to January 2002, he was President and Chief Executive Officer of GHZ Technology, Inc. Mr. Schneider has an M.B.A. from Northwestern University, Kellogg School of Management, and a B.S.E.E. from West Virginia University.

John A. Smith, Vice President and Chief Technology Officer, Age 56

Dr. Smith has served as Vice President and Chief Technology Officer since January 2005. From December 2002 to January 2005, Dr. Smith served as Vice President of Technology and General Manager of the Instruments and Control Systems Product Group, which comprises Pressure Measurement and Control, Materials Delivery, Gas Composition and Analysis, and Control and Information Technology products. Prior to this position, Dr. Smith served as Vice President and General Manager of Materials Delivery Products and Advanced Process Control, from February 2002 to December 2002. From July 1994 until February 2002, he was Managing Director of MKS Instruments, U.K. Ltd. Dr. Smith has a Ph.D. in electronic engineering from the University of Manchester, U.K.

William D. Stewart, Vice President and General Manager, Vacuum Products Group, Age 62

Mr. Stewart has served as Vice President and General Manager, Vacuum Products Group since November 1997. From October 1986 to November 1997, he was President of HPS Products, which MKS acquired in 1986. Mr. Stewart co-founded HPS in 1976. Mr. Stewart has an M.B.A. from Northwestern University and a B.S. in Business Administration from the University of Colorado. Mr. Stewart also serves on the Board of Directors of the Janus Fund.

Ronald C. Weigner, Vice President and Chief Financial Officer, Age 61

Mr. Weigner has served as Vice President and Chief Financial Officer of MKS since November 1995. From September 1993 until November 1995, he served as Vice President and Corporate Controller, and from 1980 to 1993, he served as Corporate Controller. Mr. Weigner is a certified public accountant and has a B.S. in Business Administration from Boston University.

Executive officers of MKS are elected by the Board of Directors on an annual basis and serve until their successors are duly elected and qualified. There are no family relationships among any of the executive officers or directors of MKS.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Compensation Philosophy and Objectives

The primary objective of the Company's executive compensation program is to attract, retain and motivate the critical talent that is required to execute the Company's business strategy and lead the Company to achieve its long-term growth and earnings goals.

The Company's executive compensation program is guided by the following principles:

- Offer compensation programs that are competitive with programs at companies of similar size and in a similar industry.
- Reward individual initiative, leadership and achievement.
- Provide short-term annual performance bonus incentives for management to meet or exceed the Company's earnings goals.
- Provide long-term equity incentive compensation, such as stock options, restricted stock and restricted stock units (RSUs), to encourage management to focus on shareholder return.
- Emphasize the Company's pay-for-performance philosophy.

The Company's executive compensation program is designed to provide an overall compensation package that is competitive when benchmarked against that of comparable companies. The Company's goal is to use executive compensation programs to closely align the interests of the Company's management with the interests of shareholders so that the Company's management has incentives to achieve short-term performance goals while building long-term value for the Company's shareholders. The Company will review its executive compensation

programs from time to time in order to determine their competitiveness, and to take into account factors that are unique to the Company.

Elements of Compensation

The following summarizes the compensation elements for the Company's principal executive officer, principal financial officer and each of the three other most highly compensated executive officers (collectively, the "Named Executive Officers").

Base Salary

Base salaries are designed to provide executives with a level of predictability and stability with respect to a portion of their total compensation package. In establishing base salaries for executive officers, the Compensation Committee considers the executive's responsibilities, performance, historical salary levels, internal equity among executives and the base salaries of executives at comparable companies and, with respect to salaries other than that of the Chief Executive Officer, the Chief Executive Officer's recommendations.

Short-term Incentives

The Company's Management Incentive Bonus Plan provides a short-term incentive to reward management for reaching earnings goals of the Company and certain product groups and to reinforce the Company's pay-for-performance philosophy. The Company believes that the bonus plan provides significant incentive to the executive officers of the Company to exceed the Company's financial goals. Each executive is eligible for an annual performance bonus calculated based on a specified target percentage of base salary, called an "Individual Incentive Target." In 2006, the Individual Incentive Targets were 75% of salary for Mr. Berlinghieri, 50% of salary for Mr. Colella and 40% of salary for other Named Executive Officers. For Named Executive Officers other than Mr. Stewart, annual performance bonuses are based upon achievement of specific corporate pro-forma pre-tax earning goals. For Mr. Stewart, who is the General Manager of a product group, 70% of his bonus is based on the corporate objective, while 30% is based on the achievement of annual earnings goals for the Vacuum Products Group.

The corporate element of the bonus plan formula is calculated as follows:

$$\text{Base Salary} \times \text{Individual Incentive Target} \times \text{Corporate Performance Multiplier}$$

The product group element of the bonus plan formula is calculated as follows:

$$\text{Base Salary} \times \text{Individual Incentive Target} \times \text{Product Group Performance Multiplier}$$

Each of the "Corporate Performance Multiplier" and "Product Group Performance Multiplier" ranges from 0% for achievement below a specified minimum corporate or product group goal, respectively, up to 200% for achievement of a maximum corporate or product group goal. Accordingly, the maximum payout possible for each executive is 200% of his Individual Incentive Target and the minimum payout is zero, with incremental payouts for performance between these levels.

In 2006, the Company achieved record earnings, and the Company paid the maximum bonus of 200% of Individual Incentive Targets to the Named Executive Officers. However, bonus targets are generally set aggressively and the average Corporate Performance Multiplier over the past ten years is approximately 80%.

Long-Term Incentive Compensation

The Company has provided executives with long-term incentive compensation, in the form of stock options, restricted stock and RSUs in order to:

- Align executives' interests with those of the shareholders by allowing executives to share in appreciation in the value of the Company's common stock.
- Balance the short-term focus of annual short-term incentive compensation with a longer term reward for appreciating the value of the Company.

- Retain executives because equity-based compensation vests over time.

Prior to 2006, the Company issued primarily stock options. In 2006, the Company issued restricted stock to executives because of the relatively high accounting cost of issuing an option as compared to an option's potential value to the executive and to ensure executives' interests are aligned with shareholders in both an increasing and declining stock market. The restricted stock awarded to executives vests in full on the third anniversary of the date of grant.

When establishing equity grant levels, the Compensation Committee considers general corporate performance, comparable company grants to comparable executives, executive seniority and experience, the dilutive impact of the grants, previous grant history for each executive, vesting schedules of outstanding equity-based grants, the current stock price and individual contributions to the Company's financial, operational and strategic objectives and, with respect to grants made to individuals other than the Chief Executive Officer, the Chief Executive Officer's recommendations.

It is the practice of the Company to make an initial equity-based grant to all executives at the time they commence employment, in an amount that is consistent with those granted to executive officers in the industry at similar levels of seniority. In addition, the Company typically makes an annual grant of equity-based compensation to executives during the first fiscal quarter of each year. Discretionary equity-based grants may be made throughout the year to provide an incentive to achieve a specific goal or to reward a significant achievement. Mr. Bertucci has historically not received equity-based compensation grants.

In 2007, the Named Executive Officers have received 50% of their total equity grant value in the form of time-vested RSUs and 50% in the form of performance-vested RSUs to further the Company's pay-for-performance philosophy. These RSUs vest in equal annual installments over three years, subject to achievement of the performance goal with respect to the performance-vested portion.

Retirement Benefits

Pursuant to employment agreements, the Company provides supplemental retirement benefits to certain executives including Messrs. Berlinghieri, Colella and Weigner. These supplemental benefits are designed to reward long service with the Company and to serve as a significant incentive for these executives to remain at the Company. In addition, these benefits are designed to provide for supplemental retirement benefits for executives that are not available under the Company's Company-wide employee benefit plans due to regulatory limitations on benefit accruals.

In addition, the Company also provides retiree medical benefits to Messrs. Bertucci, Stewart and Weigner, and their respective spouses, for their lifetimes, upon meeting specified criteria. This benefit was designed to retain Mr. Bertucci, Stewart and Weigner over the long-term because it is contingent upon the executive maintaining his employment with the Company until age 62, with specified exceptions.

Perquisites

The Company offers certain perquisites to the Named Executive Officers to allow executives to focus on corporate strategy and enhancing shareholder value, to provide competitive pay packages and, in certain circumstances, to entertain customers.

Severance and Change-in-Control Provisions

The Company has entered into employment agreements with each of the Named Executive Officers, providing for certain severance provisions and benefits associated with various termination scenarios and restricting the officers' ability to compete with the Company. In addition, restricted stock agreements and RSU agreements with the Named Executive Officers provide for certain vesting acceleration in the event of a change-in-control. The severance and change in control provisions are designed to be competitive in the marketplace, and provide security for Named Executive Officers in the event that the Company is acquired and their position is impacted. They are also intended to protect the Company from competitive harm by compensating the Named Executive Officers for agreeing to substantial non-compete provisions after termination.

Engagement of Compensation Consultant; Market Comparison

In 2006, the Compensation Committee engaged a compensation consultant, Pearl Meyer & Partners, to serve as an independent advisor to the Compensation Committee regarding compensation for the Board of Directors and executives. The compensation consultant prepared for the Compensation Committee a competitive analysis of compensation for each executive utilizing comparable company compensation data, and size and industry appropriate broad survey data; a dilution analysis of overall Company equity use compared to overall equity use by comparable companies; a financial performance analysis comparing the Company's financial performance to the comparable companies; a competitive assessment of compensation for members of the Board of Directors; competitive data relating to executives in acquisitions and advice around short and long-term incentive programs. The Compensation Committee may elect to engage a compensation consultant from time to time in the future. The companies used for benchmarking will be reviewed each year by the Company and may change from year-to-year depending on changes in the marketplace, acquisitions, divestitures and business focus of the Company or comparable companies.

Role of Company Executives

The CEO presents executive performance ratings to the Compensation Committee and makes recommendations relating to executive compensation. Management develops proposed Company goals for review and approval by the Compensation Committee for the annual performance bonus, develops proposals relating to potential changes in compensation programs for review and approval by the Compensation Committee and provides the Compensation Committee and advisors with Company information necessary to evaluate and implement compensation proposals and programs.

Impact of Accounting and Tax on the Form of Compensation

Impact of Code Section 162(m)

Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), generally disallows a tax deduction to public companies for certain compensation in excess of \$1.0 million paid to such company's chief executive officer or any of the four other most highly compensated executive officers. Certain compensation, including qualified performance-based compensation, will not be subject to the deduction limit if certain requirements are met. The Compensation Committee reviews the potential effect of Section 162(m) periodically and generally seeks to structure the compensation granted to its executive officers in a manner that is intended to avoid disallowance of deductions under Section 162(m). However, because neither the Company's 2004 Stock Incentive Plan nor the Company's Management Incentive Bonus Plan (other than with respect to stock options) is designed to qualify as performance-based compensation under Section 162(m), it is possible that a portion of any bonus payable to, or compensation arising under equity awards granted to, the Chief Executive Officer and certain other executives will not be deductible for federal income tax purposes. The Compensation Committee reserves the right to use its judgment to authorize compensation payments which may be in excess of the Section 162(m) limit when the Committee believes such payments are appropriate, after taking into consideration changing business conditions or the officer's performance, and are in the best interests of the shareholders.

Impact of SFAS 123R

The Compensation Committee has considered the impact of the Statement on Financial Accounting Standards No. 123R, "Share-Based Payment" (SFAS 123R), on the Company's use of equity incentives as a key retention tool. Because of the significant cost associated with options under SFAS 123R as compared to the potential value delivered, the Compensation Committee has elected to grant more efficient equity instruments instead of stock options. Accordingly, it granted to executives restricted stock in 2006 and RSUs beginning in 2007. The Compensation Committee will regularly review its choice of equity instrument taking into account both tax and accounting considerations.

COMPENSATION COMMITTEE REPORT

In 2006, the Compensation Committee comprised Messrs. Anderson, Kahl (who was replaced by James Berges on May 8, 2006) and Valente. None of the members were, at any time, officers or employees of MKS or any subsidiary of MKS, and none of them had any relationship with MKS requiring disclosure under Item 404 of Regulation S-K under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). No executive officer of MKS serves, or has served, as a member of the board of directors or compensation committee (or other committee serving an equivalent function) of any other entity which has one or more executive officers serving as a member of the Company's Board of Directors or Compensation Committee.

The Compensation Committee has reviewed and discussed the "Compensation Discussion and Analysis" required by Item 402(b) of Regulation S-K with management. Based on such review and discussions, the Committee recommended to the Board of Directors that the "Compensation Discussion and Analysis" be included in this proxy statement on Schedule 14A.

Respectfully submitted,

James G. Berges, Chairman
Robert R. Anderson, Member
Louis P. Valente, Member

The Report of the Compensation Committee and related disclosure shall not be deemed incorporated by reference by any general statement incorporating this proxy statement into any filing under the Securities Act of 1933 or under the Exchange Act, except to the extent that the Company specifically incorporates this information by reference, and shall not otherwise be deemed filed under such Acts.

Summary Compensation Table

The following table sets forth the aggregate amounts of compensation earned by our Named Executive Officers in the year ended December 31, 2006.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards \$(1)	Option Awards \$(1)	Non-Equity Incentive Plan Compensation \$(2)	Change in Pension Value and Nonqualified Deferred Compensation Earnings \$(3)	All Other Compensation \$(4)	Total (\$)
Leo Berlinghieri, CEO & President	2006	\$ 450,001	\$ 0	\$ 457,450	\$ 362,184	\$ 673,558	\$ 438,613	\$ 26,724	\$ 2,408,530
Ronald C. Weigner, VP & Chief Financial Officer	2006	\$ 250,112	\$ 0	\$ 57,261	\$ 153,948	\$ 199,764	\$ 91,308	\$ 34,840	\$ 787,233
John R. Bertucci(5), Executive Chairman	2006	\$ 450,008	\$ 0	\$ 0	\$ 0	\$ 540,010	\$ 0	\$ 37,944	\$ 1,027,962
Gerald G. Colella, VP & Chief Business Officer	2006	\$ 319,110	\$ 0	\$ 80,166	\$ 183,918	\$ 317,763	\$ 253,670	\$ 42,370	\$ 1,196,997
William D. Stewart, VP & GM, Vacuum Product Group	2006	\$ 244,550	\$ 0	\$ 68,714	\$ 310,716	\$ 195,350	\$ 0	\$ 24,249	\$ 843,579

- (1) Represents the proportionate amount of the total fair value of stock and option awards recognized by the Company as an expense in 2006 for financial accounting purposes. The fair values of these awards and the amounts expensed in 2006 were determined in accordance with SFAS 123R. The awards for which expense is shown in this table include the awards described in the Grants of Plan-Based Awards table of this proxy statement, as well as awards granted in previous years for which we recognized expense in 2006. In 2006, the Company granted restricted stock, rather than stock options, to the Named Executive Officers. The assumptions used in determining the grant date fair values of awards are set forth in the notes to the Company's consolidated

financial statements, which are included in the Company's Annual Report on Form 10-K filed with the Commission.

- (2) Reflects compensation under the Management Incentive Bonus Plan earned for fiscal year 2006 that was paid in 2007. Each executive was eligible for an annual performance bonus calculated based on a specified target percentage of base salary, called an "Individual Incentive Target." The Individual Incentive Targets for the Named Executive Officers in 2006 were: Mr. Berlinghieri — 75%, Mr. Weigner — 40%, Mr. Bertucci — 60%, Mr. Colella — 50% and Mr. Stewart — 40%. The maximum bonus payout possible was 200% of this Individual Incentive Target and the minimum payout was zero, with incremental pay-outs for performance between these levels. For all Named Executive Officers other than Mr. Stewart, annual performance bonuses were paid out upon achievement of specific corporate pro forma pre-tax EPS goals. For Mr. Stewart, who is the General Manager of a product group, 70% of his bonus was based on this corporate objective, while 30% was based on annual earnings achieved by his product group.
- (3) Reflects the actuarial increase in present value from the fiscal year end 2005 to 2006 for Supplemental Retirement Benefits. The employment agreements for each Messrs. Berlinghieri, Weigner and Colella provide for supplemental retirement benefits. The Company does not have a deferred compensation plan for the Named Executive Officers.
- (4) The following table details the components of this column:

Name	Year	Payments for Car	Golf Club Membership	Company Paid Health	401(K) Matching Contributions	Total
Leo Berlinghieri	2006	\$ 7,462	\$ 5,200	\$ 14,062	\$ 0	\$ 26,724
Ronald C. Weigner	2006	\$ 14,891	\$ 0	\$ 13,349	\$ 6,600	\$ 34,840
John R. Bertucci	2006	\$ 19,864	\$ 0	\$ 11,480	\$ 6,600	\$ 37,944
Gerald G. Colella	2006	\$ 13,222	\$ 5,200	\$ 17,348	\$ 6,600	\$ 42,370
William D. Stewart	2006	\$ 12,605	\$ 0	\$ 5,044	\$ 6,600	\$ 24,249

- (5) Mr. Bertucci resigned his position as Executive Chairman effective December 31, 2006 and currently serves as Chairman of the Board of Directors.

Grants of Plan-Based Awards in Fiscal Year 2006

Name	Grant Date(1)	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(2)			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units(3)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$)(4)
		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (\$)	Maximum (\$)				
Leo Berlinghieri	2/13/06	\$ 0	\$ 337,500	\$ 675,000	—	—	—	25,000	—	—	\$ 549,000
Ronald C. Weigner	2/13/06	\$ 0	\$ 100,036	\$ 200,072	—	—	—	10,000	—	—	\$ 219,600
John R. Bertucci	—	\$ 0	\$ 270,000	\$ 540,000	—	—	—	—	—	—	—
Gerald G. Colella	2/13/06	\$ 0	\$ 159,554	\$ 319,108	—	—	—	14,000	—	—	\$ 307,440
William D. Stewart	2/13/06	\$ 0	\$ 97,620	\$ 195,640	—	—	—	12,000	—	—	\$ 263,520

- (1) This column shows the date of the grant for all equity awards granted in 2006.
- (2) Represents threshold, target and maximum payout levels under the 2006 Management Incentive Bonus Plan. The actual amount of incentive bonus earned by each Named Executive Officer in 2006 is reported under the Non-Equity Incentive Plan Compensation column in the Summary Compensation Table. The following summarizes the individual target bonus for each Named Executive Officer: Mr. Berlinghieri — 75%, Mr. Weigner — 40%, Mr. Bertucci — 60%, Mr. Colella — 50% and Mr. Stewart — 40% (of which 70% is Corporate Bonus and 30% is Product Group Bonus). Maximum award opportunities were capped at 200% of the target award for all executives.
- (3) The restricted shares vest in full on the third anniversary of the date of grant.
- (4) Reflects the grant date fair value of restricted stock awards. The fair value was \$21.96 per share for restricted stock awarded on February 13, 2006.

Outstanding Equity Awards at 2006 Fiscal Year-End

Name	Option Awards(1)					Stock Awards(2)			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested(3) (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested(3) (\$)
Leo Berlinghieri	60,000	0		\$ 6.67	07/09/08	25,000	\$ 564,500	37,500	\$ 846,750
	11,000	0		\$ 32.00	01/04/10				
	30,000	0		\$ 17.25	03/21/11				
	880	0		\$ 20.02	10/15/11				
	125,000	0		\$ 24.50	11/14/11				
	30,000	0		\$ 23.50	01/30/12				
	465	0		\$ 18.44	06/24/12				
	30,000	0		\$ 16.88	11/22/12				
	482	0		\$ 12.97	02/07/13				
	40,625	9,375		\$ 17.60	07/01/13				
	375	0		\$ 17.60	07/01/13				
	35,000	0		\$ 27.11	11/11/13				
	15,000	0		\$ 29.93	01/05/14				
	28,125	21,875		\$ 14.72	07/30/14				
Ronald C. Weigner	60,000	0		\$ 6.67	07/09/08	10,000	\$ 225,800		
	12,000	0		\$ 32.00	01/04/10				
	30,000	0		\$ 17.25	03/21/11				
	950	0		\$ 20.02	10/15/11				
	125,000	0		\$ 24.50	11/14/11				
	30,000	0		\$ 23.50	01/30/12				
	503	0		\$ 18.44	06/24/12				
	30,000	0		\$ 16.88	11/22/12				
	503	0		\$ 12.97	02/07/13				
	392	0		\$ 17.60	07/01/13				
	24,000	0		\$ 27.11	11/11/13				
	6,000	0		\$ 29.93	01/05/14				
	16,875	13,125		\$ 14.72	07/30/14				
John R. Bertucci	6,518	0		\$ 12.72	11/19/08				
	8,819	0		\$ 38.63	11/18/09				
	965	0		\$ 12.97	02/07/13				
Gerald G. Colella	11,000	0		\$ 32.00	01/04/10	14,000	\$ 316,120		
	30,000	0		\$ 17.25	03/21/11				
	823	0		\$ 20.02	10/15/11				
	125,000	0		\$ 24.50	11/14/11				
	30,000	0		\$ 23.50	01/30/12				
	436	0		\$ 18.44	06/24/12				
	0	750		\$ 18.12	05/29/13				
	28,000	0		\$ 27.11	11/11/13				
	250	0		\$ 26.86	12/03/13				
	7,000	0		\$ 29.93	01/05/14				
	4,462	15,313		\$ 14.72	07/30/14				
William D. Stewart	11,000	0		\$ 32.00	01/04/10	12,000	\$ 270,960		
	125,000	0		\$ 24.50	11/14/11				
	25,000	0		\$ 23.50	01/30/12				
	5,625	0		\$ 16.88	11/22/12				

Name	Option Awards(1)					Stock Awards(2)			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested(3) (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested(3) (\$)
	24,000	0		\$ 27.11	11/11/13				
	6,000	0		\$ 29.93	01/05/14				
	16,875	13,125		\$ 14.72	07/30/14				
	32,812	4,688		\$ 17.74	02/14/15				
	37,500	0		\$ 17.74	02/14/15				

- (1) Stock options generally have a 10-year term and vest in equal quarterly installments over four years from the date of grant.
- (2) Restricted stock vests in full on the third anniversary of the date of grant.
- (3) Reflects the values as calculated based on the closing price of the Company's common stock on December 29, 2006 of \$22.58 per share.

Option Exercises and Stock Vested in Fiscal Year 2006

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized Upon Exercise(1) (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Leo Berlinghieri	20,000	\$ 307,800	0	\$ 0
Ronald C. Weigner	65,400	\$ 1,064,707	0	\$ 0
John R. Bertucci	0	\$ 0	0	\$ 0
Gerald G. Colella	31,476	\$ 233,655	0	\$ 0
William D. Stewart	56,172	\$ 377,034	0	\$ 0

- (1) Value realized represents the excess of the fair market value of the shares at the time of exercise over the exercise price of options.

Pension Benefits

Pursuant to employment agreements, the Company provides supplemental retirement benefits to certain executives including Messrs. Berlinghieri, Weigner and Colella. These supplemental benefits are designed to reward long service with the Company and to serve as a significant incentive for these executives to remain at the Company. In addition, these benefits are designed to provide for supplemental retirement benefits for executives that are not available under the Company's Company-wide employee benefit plans due to regulatory limitations on benefit accruals.

The benefits vest upon the employee reaching both (i) specified ages and (ii) 25 years of service with the Company, in each case while employed with the Company, or upon the employee's earlier death, disability, termination without cause (as defined in the employment agreements) or a qualifying termination in connection with a change in control (as defined in the agreement) and are forfeited in the event of termination for cause. When fully vested, the benefits provide for lifetime annual payments equal to 50% of the employee's final average compensation, with 50% of such amount payable to his spouse for life after the employee's death, or a lump sum payment of an aggregate amount calculated in accordance with actuarial tables. These benefits are not subject to any deduction for social security or other offset amounts. Final average compensation is equal to the average of officer's three highest years of compensation (salary plus bonus) during the 10 years prior to the officer's retirement (or other qualifying termination).

The table below summarizes the present value as of December 31, 2006 of the accumulated benefits of the Company's Named Executive Officers under their Supplemental Pension arrangements.

PENSION BENEFITS

<u>Name</u>	<u>Plan Name</u>	<u>Number of Years Credited Service (#)</u>	<u>Present Value of Accumulated Benefit (\$)</u>	<u>Payments During the Last Fiscal Year (\$)</u>
Leo Berlinghieri	Supplemental Retirement Benefits under Employment Agreement	25	\$2,361,365	\$ 0
Ronald C. Weigner	Supplemental Retirement Benefits under Employment Agreement	25	\$1,918,744	\$ 0
John R. Bertucci	N/A	N/A	N/A	N/A
Gerald G. Colella	Supplemental Retirement Benefits under Employment Agreement	23.75	\$1,392,966	\$ 0
William D. Stewart	N/A	N/A	N/A	N/A

Termination of Employment and Change in Control Agreements

This section summarizes each Named Executive Officers' quantitative disclosure of estimated payments and other benefits that would be received by the Named Executive Officer or his estate if his employment had terminated on December 31, 2006, under the circumstances set forth below.

Mr. Berlinghieri

Mr. Berlinghieri's employment and equity agreements provide for the following:

- If Mr. Berlinghieri's employment is terminated by the Company (other than for failure or refusal to perform his obligations, commitment of acts not in the Company's interest, commission of a felony or willful misconduct), he will receive salary for 12 months after the date of such termination. He will also receive Company paid medical, dental, life and vision insurance for 12 months.
- If Mr. Berlinghieri's employment is terminated by the Company without "cause" or by Mr. Berlinghieri for "good reason" (each as defined in the agreement), within two years after a change in control of the Company, and certain other criteria are met, Mr. Berlinghieri will be entitled to:
 - Salary and bonus for 36 months paid in a lump sum and grossed-up for applicable state and federal taxes.
 - Paid medical, dental, life and vision insurance for 36 months.
 - Full vesting of restricted stock and RSUs.
 - A tax gross-up for any taxes due under Code Section 4999 for excise parachute payments.

During the term of Mr. Berlinghieri's employment and for a period of one year thereafter (or two years, if employment was terminated by Mr. Berlinghieri other than for "good reason"), Mr. Berlinghieri may not (i) engage in any competitive business or activity, (ii) work for or become a partner with any employee, officer or agent of the Company, or (iii) have any financial interest in or be a director, officer, 1% shareholder, partner, employee or consultant to any competitor of the Company. For a period of two years after termination of employment, Mr. Berlinghieri may not (i) solicit any customer to become a customer, distributor or supplier of any other person or entity or to cease doing business with the Company or (ii) solicit or hire any employee or agent of the Company to terminate such person's employment or engagement with the Company or to work for a third party.

Mr. Bertucci

Mr. Bertucci's employment agreement provided that if Mr. Bertucci resigned from his employment, then, subject to applicable law, the Company's by-laws and articles of organization and the directors' fiduciary duties, the Board of Directors shall nominate Mr. Bertucci for election as a Class III director and consider Mr. Bertucci for appointment as Chairman of the Board, until such time as Mr. Bertucci is no longer eligible for nomination as a director. Effective December 31, 2006, Mr. Bertucci resigned from his employment. At that time, he remained a Class III director and became a non-executive Chairman of the Board. Pursuant to the terms of his employment agreement, he has agreed to be available for consultation to the Company for up to ten hours per month until December 31, 2007. He is entitled to 18 months of severance, which is valued at \$675,000. Mr. Bertucci also qualifies for retiree medical benefits under his agreement, which had a net present value of \$73,215 as of December 31, 2006, and which requires that he make an annual contribution toward the benefit of \$1,500, plus 30% of all costs. Mr. Bertucci also receives a car allowance, which had a net present value of \$206,182 as of December 31, 2006. During the term of employment and for a period of two years thereafter, Mr. Bertucci may not (i) manage, participate in or carry on a competing business, (ii) maintain an ownership interest of 1% in any competing business, (iii) solicit or contact any customer of the Company to purchase a competing product or divert business from the Company, or (iv) induce any customer or supplier to terminate or materially change its relationship with the Company. In addition, during such period, he may not induce any employee or agent of the Company to terminate such employment or agency relationship or violate any agreement with the Company.

As a result of Mr. Bertucci's voluntary resignation as an employee of the Company, the compensatory terms of Mr. Bertucci's employment agreement, other than those set forth above, are no longer in effect.

Other Named Executive Officers

All of the other Named Executive Officers' employment terms are month to month, with termination upon death, disability, or at the election of the Company if the employee fails to perform his duties or commits any act not in the Company's best interest. Messrs. Weigner, Colella and Stewart are entitled to the following benefits under their agreements:

- Severance equal to $\frac{1}{2}$ of their base salary in the event that they are terminated without cause.
- Six months continuation of specified health benefits at the cost of the Company.
- A gross-up payment for any excise taxes imposed under Code section 4999 (excluding Mr. Stewart).
- Retiree medical benefits, if eligible (excluding Mr. Colella).

Each of the employment agreements contains a non-competition provision. With respect to Messrs. Weigner, Colella and Stewart, such employees may not during the term of their employment and for the period of one year after termination of employment (or, in the case of Messrs. Weigner and Stewart, two years if employment was terminated by such employee other than for good reason (as defined in the agreement)):

- engage in any competitive business or activity;
- work for, employ, become a partner with, or cause to be employed, any employee, officer or agent of MKS;
- give, sell or lease any competitive services or goods to any customer of MKS; or
- have any material financial interest in or be a director, officer, partner, employee or consultant to or exceed specified shareholding limitations in, any competitor of MKS.

Each of the employment agreements also contains non-solicitation provisions. During the term of employment and for a period of two years after termination of employment (one year for Mr. Colella), the employees may not (i) solicit any customer to become a customer, distributor or supplier of any other person or entity or to cease doing business with the Company or (ii) solicit or hire any employee or agent of the Company to terminate such person's employment or engagement with the Company or to work for a third party.

Each Named Executive Officer's restricted stock award provides for 100% acceleration of vesting of all shares if the executive is terminated without cause or resigns with good reason within 24 months of a change-in-control, as defined in the agreement. Restricted stock normally vests in full on the third anniversary of the date of grant.

Post-Employment Payments — Leo Berlinghieri

Termination Circumstance	Cash Severance		Value of Accelerated Unvested Equity	Benefits Continuation(1)	Retiree Medical Benefits(2)	State and Federal Income Tax Gross-up on Cash Severance	Gross up of I.R.C. Golden Parachute excise tax resulting from Change in Control(3)	Total(4)
	Base Salary	Management Incentive Bonus						
Involuntary Without Cause Termination	\$450,000 (1x salary)	N/A	N/A	\$13,966	N/A	N/A	N/A	\$ 463,966
Within 24 Months Following a Change in Control:								
• Involuntary Without Cause Termination, or	\$1,350,000 (3x salary)	\$1,012,500 (3x bonus)	\$1,629,875	\$41,899	N/A	\$1,614,438	\$3,158,358	\$ 8,807,070
• Executive Resignation for Good Reason(5),(6)								
Death(7)	\$450,000 (1x salary)	N/A	\$505,384	N/A	N/A	N/A	N/A	\$ 955,384
Disability(7)	N/A	N/A	\$505,384	N/A	N/A	N/A	N/A	\$ 505,384

- (1) Benefits Continuation reflects the Company's cost for life insurance, medical, dental and vision for 12 months following involuntary without cause termination or 36 months following a change in control.
- (2) Not eligible for retiree medical benefits.
- (3) For purposes of assessing whether the executive would be liable for a 280G excise tax (and in turn entitled to a gross-up from the Company), the calculations assume that an executive terminated within 24 months of a change in control would have the vesting on his or her options accelerated (which the Board of Directors can do at its discretion).
- (4) The total does not include the present value of accumulated benefit under the Supplemental Retirement Benefits. See the Pension Benefits table for this information.
- (5) 100% of the unvested restricted stock award vests. For purposes of determining the value of the acceleration of unvested options, the calculations assume that the executive was terminated following the change in control and the vesting on his options was accelerated by the Board of Directors, which the Board of Directors can do at its discretion.
- (6) The Company will reimburse Mr. Berlinghieri for any state and federal income taxes associated with the severance payment, as well as any excise taxes due under Internal Revenue Code Section 280G.
- (7) For death and disability, the percentage of restricted stock equal to the percentage of time between the grant date and the third anniversary of the grant date remaining at the time of such death or disability shall be forfeited. The stated value assumes the death or disability occurred on December 31, 2006.

Post-Employment Payments — Ronald C. Weigner

Termination Circumstance:	Cash Severance		Value of Accelerated Unvested Equity	Benefits Continuation(1)	Retiree Medical Benefits(2)	Gross up of L.R.C. Golden Parachute excise tax resulting from Change in Control(3)	Total(4)
	Base Salary	Management Incentive Bonus					
Involuntary Without Cause Termination	\$125,046 (0.5x salary)	N/A	N/A	\$444	\$ 182,636	N/A	\$ 308,126
Executive Resignation with Good Reason Within 24 Months of a Change in Control:	N/A	N/A	N/A	N/A	\$ 182,636	N/A	\$ 182,636
• Termination by the Company Without Cause(5),(6),(7)	\$125,046 (0.5x salary)	N/A	\$328,962	\$444	\$ 182,636	\$0	\$ 637,088
Within 24 Months of a Change in Control:							
• Executive Resignation for Good Reason(5),(6),(7)	N/A	N/A	\$328,962	N/A	\$ 182,636	\$0	\$ 511,598
Retirement	N/A	N/A	N/A	N/A	\$ 0	N/A	\$ 0
Death(8)	N/A	N/A	\$ 66,148	N/A	\$ 129,137	N/A	\$ 195,285
Disability(8)	N/A	N/A	\$ 66,148	N/A	\$ 182,636	N/A	\$ 248,784

- (1) Benefits Continuation reflects the Company's cost for life insurance, dental and vision for 6 months.
- (2) Retiree Medical Benefits represent the estimated present value of the retiree medical benefit assuming the separation occurred on December 31, 2006.
- (3) For purposes of assessing whether the executive would be liable for a 280G excise tax (and in turn entitled to a gross-up from the Company), the calculations assume that an executive terminated within 24 months of a change in control would have the vesting on his or her options accelerated (which the Board of Directors can do at its discretion).
- (4) The total does not include the present value of accumulated benefit under the Supplemental Retirement Benefits. See the Pension Benefits table for this information.
- (5) 100% of the unvested restricted stock awards vests. For purposes of determining the value of the acceleration of unvested options, the calculations assume that the executive was terminated following the change in control and the vesting on his options was accelerated by the Board of Directors, which the Board of Directors can do at its discretion).
- (6) Upon a change in control, employee may be subject to certain excise taxes under Section 280G of the Internal Revenue Code. The Company has agreed to reimburse Mr. Weigner for those excise taxes as well as any income and excise taxes payable by the executive as a result of any reimbursement for the 280G excise taxes. Had Mr. Weigner been terminated following a change in control on December 31, 2006, there would not have been an excise tax liability due.
- (7) For retiree medical benefits, the termination only needs to occur within 36 months of the change in control.
- (8) For death and disability, the percentage of restricted stock equal to the percentage of time between the grant date and the third anniversary of the grant date remaining at the time of such death or disability shall be forfeited. The stated value assumes the death or disability occurred on December 31, 2006.

Post-Employment Payments — Gerald G. Colella

Termination Circumstance:	Cash Severance		Value of Accelerated Unvested Equity	Benefits Continuation(1)	Retiree Medical Benefits	Gross up of I.R.C. Golden Parachute excise tax resulting from Change in Control(2)	Total(3)
	Base Salary	Management Incentive Bonus					
Involuntary Without Cause Termination	\$162,500 (0.5x salary)	N/A	N/A	\$6,971	N/A	N/A	\$ 169,471
Within 24 Months of a Change in Control:							
• Termination by the Company Without Cause(4),(5)	\$162,500 (0.5x salary)	N/A	\$439,825	\$6,971	N/A	\$0	\$ 609,297
Within 24 Months of a Change in Control							
• Executive Resignation with Good Reason(4),(5)	N/A	N/A	\$439,825	N/A	N/A	\$0	\$ 439,825
Death or Disability(6)	N/A	N/A	\$ 92,607	N/A	N/A	N/A	\$ 92,607

- (1) Benefits Continuation reflects the Company's cost for life insurance, medical, dental and vision for 6 months.
- (2) For purposes of assessing whether the executive would be liable for a 280G excise tax (and in turn entitled to a gross-up from the Company), the calculations assume that an executive terminated within 24 months of a change in control would have the vesting on his or her options accelerated (which the Board of Directors can do at its discretion).
- (3) The total does not include the present value of accumulated benefit under the Supplemental Retirement Benefits. See the Pension Benefits table for this information.
- (4) 100% of the unvested restricted stock awards vest. For purposes of determining the value of the acceleration of unvested options, the calculations assume that the executive was terminated following the change in control and the vesting on his options was accelerated by the Board of Directors, which the Board of Directors can do at its discretion.
- (5) Upon a change in control, employee may be subject to certain excise taxes under Section 280G of the Internal Revenue Code. The Company has agreed to reimburse Mr. Colella for those excise taxes as well as any income and excise taxes payable by the executive as a result of any reimbursement for the 280G excise taxes. Had Mr. Colella been terminated following a change in control on December 31, 2006, there would not have been an excise tax liability due.
- (6) For death and disability, the percentage of restricted stock equal to the percentage of time between the grant date and the third anniversary of the grant date remaining at the time of such death or disability shall be forfeited. The stated value assumes the death or disability occurred on December 31, 2006.

Post-Employment Payments — William Stewart

Termination Circumstance:	Cash Severance		Value of Accelerated Unvested Equity	Benefits Continuation(1)	Retiree Medical Benefits(2)	Gross up of L.R.C. Golden Parachute excise tax resulting from Change in Control(3)	Total
	Base Salary	Management Incentive Bonus					
Involuntary Without Cause Termination	\$122,275 (0.5x salary)	N/A	N/A	\$ 235	\$41,387	N/A	\$ 163,897
Executive Resignation with Good Reason Within 24 Months of a Change in Control:	N/A	N/A	N/A	N/A	\$41,387	N/A	\$ 41,387
• Termination by the Company Without Cause(4),(5)	\$122,275 (0.5x salary)	N/A	\$396,812	\$ 235	\$41,387	N/A	\$ 560,709
Within 24 Months of a Change in Control							
• Executive Resignation with Good Reason(4),(5)	N/A	N/A	\$396,812	N/A	\$41,387	N/A	\$ 438,199
Retirement	N/A	N/A	N/A	N/A	\$26,416	N/A	\$ 26,416
Death(6)	N/A	N/A	\$ 79,378	N/A	N/A	N/A	\$ 79,378
Disability(6)	N/A	N/A	\$ 79,378	N/A	\$41,387	N/A	\$ 120,765

- (1) Benefits Continuation reflects the Company's cost for life insurance, dental and vision for 6 months.
- (2) Retiree Medical Benefits represent the estimated present value of the retiree medical benefit assuming the separation occurred on December 31, 2006.
- (3) Mr. Stewart is not eligible for a gross-up for taxes due to the application of IRC Section 280G.
- (4) 100% of the unvested restricted stock awards vest. For purposes of determining the value of the acceleration of unvested options, the calculations assume that the executive was terminated following the change in control and the vesting on his options was accelerated by the Board of Directors, which the Board of Directors can do at its discretion.
- (5) For retiree medical benefits, the termination only needs to occur within 36 months of the change in control.
- (6) For death and disability, the percentage of restricted stock equal to the percentage of time between the grant date and the third anniversary of the grant date remaining at the time of such death or disability shall be forfeited. The stated value assumes the death or disability occurred on December 31, 2006.

DIRECTOR COMPENSATION

The following summarizes compensation paid to non-employee directors for the year ended December 31, 2006.

Cash Compensation

In 2006, directors who were not employees of the Company were paid an annual retainer of \$20,000 and a fee of \$2,000 for each Board of Directors meeting they attended. In addition, the Chairman of the Audit Committee was paid \$2,500, and the other members of the Audit Committee were paid \$1,500, for each meeting of the Audit Committee that they attended. The Chairman of the Compensation Committee and the Chairman of the Nominating and Corporate Governance Committee were each paid \$1,500, and the other members of such committees were paid \$750, for each meeting of such committees that they attended. Directors are also reimbursed for expenses incurred in connection with their attendance at Board of Directors and committee meetings.

Equity Compensation

The Second Amended and Restated 1997 Director Stock Option Plan (the "1997 Director Plan") authorized the issuance of up to an aggregate of 750,000 shares of Common Stock to our non-employee directors. The 1997 Director Plan was administered by the Company's Board of Directors. Under the 1997 Director Plan, non-employee directors received options to purchase 20,000 shares of Common Stock upon their initial election to the Board of Directors. Each initial option vests over a three-year period in 12 equal quarterly installments following the date of grant. On the date of each annual meeting of shareholders, options to purchase 12,000 shares of Common Stock were automatically granted to each eligible director who had been in office for at least six months prior to the date of the annual meeting of shareholders. Each annual option becomes exercisable on the day prior to the first annual meeting of shareholders following the date of grant, or if no such meeting is held within 13 months after the date of grant, on the 13-month anniversary of the date of grant. The exercise price of all options granted under the 1997 Director Plan is equal to the fair market value of the Common Stock on the date of grant. Options granted under the 1997 Director Plan terminate upon the earlier of (i) 10 years after the grant date and (ii) with respect to options granted prior to May 17, 2000, three months after the optionee ceases to be a director of the Company, or, with respect to options granted on or after May 17, 2000, three years after the optionee ceases to be a director of the Company. In the event of a change in control of MKS, the vesting of all options then outstanding would be accelerated in full and any restrictions on exercising outstanding options would terminate.

The following table summarizes compensation paid to non-employee directors in 2006.

Director Compensation Table

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$)(1)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings	All Other Compensation (\$)	Total (\$)
Robert R. Anderson	\$ 40,750	\$ 0	\$ 129,496	\$ 0	\$ 0	\$ 0	\$ 170,246
Gregory R. Beecher	\$ 13,333	\$ 0	\$ 28,619	\$ 0	\$ 0	\$ 0	\$ 41,952
James G. Berges	\$ 31,750	\$ 0	\$ 96,776	\$ 0	\$ 0	\$ 0	\$ 128,526
Richard S. Chute(2)	\$ 94,000	\$ 0	\$ 129,496	\$ 0	\$ 0	\$ 0	\$ 223,496
Hans-Jochen Kahl	\$ 31,000	\$ 0	\$ 129,496	\$ 0	\$ 0	\$ 0	\$ 160,496
Owen W. Robbins	\$ 41,500	\$ 0	\$ 129,496	\$ 0	\$ 0	\$ 0	\$ 170,996
Louis P. Valente	\$ 50,250	\$ 0	\$ 129,496	\$ 0	\$ 0	\$ 0	\$ 179,746

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- (1) Represents the proportionate amount of the total fair value of stock option awards recognized by the Company as an expense in 2006 for financial accounting purposes. The fair values of these awards and the amounts expensed in 2006 were determined in accordance with FAS 123R. The awards for which expense is shown in this table include the stock option awards in 2006, as well as awards granted in previous years for which we recognized expense in 2006. The assumptions used in determining the grant date fair values of these awards are set forth in the notes to the Company's consolidated financial statements, which are included in our Annual Reports on Form 10-K filed with the Commission. The grant date fair value of 2006 option awards computed in accordance with Statement of Financial Accounting Standards No. 123R to each of Messrs. Anderson, Berges, Chute, Kahl, Robbins and Valente: \$148,824 and Mr. Beecher: \$203,680.
 - (2) Fees earned or paid in cash by Mr. Chute include a \$60,000 legal retainer.

Certain Relationships and Related Transactions

In accordance with our Audit Committee charter, our Audit Committee is responsible for reviewing and approving the terms and conditions of all material related party transactions. The Audit Committee annually reviews and approves transactions in which any related party may have a direct or indirect material interest.

Mr. Schneider, MKS's Vice President and General Manager, Ion Systems, was the President and Chief Executive Officer of Ion Systems, Inc., which was acquired by MKS on January 3, 2006. In connection with the acquisition, Mr. Schneider received payment out of the purchase price proceeds for a management incentive bonus arrangement that was in effect between him and Ion Systems, Inc. and for his stock options. The aggregate principal amount paid to Mr. Schneider in connection with the acquisition was approximately \$3,015,000.

Mr. Stewart, MKS's Vice President and General Manager of the Vacuum Products Group, is the general partner of Aspen Industrial Park Partnership, LLLP and 5330 Sterling Drive, LLC (collectively, "Aspen"). Three of Mr. Stewart's siblings, Timothy Stewart, Christopher Stewart and Marian Stewart, are also partners in Aspen. MKS leases from Aspen certain facilities occupied by MKS's Vacuum Products Group in Boulder, Colorado. MKS paid Aspen approximately \$751,000 in 2006 to lease such facilities.

During 2006 Emerson Electric Co. was the beneficial owner of at least 5% of the outstanding shares of Common Stock. During 2006, MKS purchased materials and administrative services from Emerson and its subsidiaries totaling approximately \$1,430,000. As of the date of this proxy statement, Emerson is no longer the beneficial owner of 5% of the outstanding shares of Common Stock.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee of the Company's Board of Directors is currently composed of four members and acts under a written charter adopted and approved on February 4, 2004 and amended on February 12, 2007. The members of the Audit Committee are independent directors, as defined by its charter and the rules of the NASDAQ Stock Market, and possess the financial sophistication required by such charter and rules. The Audit Committee held eight meetings during the fiscal year ended December 31, 2006.

Management is responsible for the Company's internal controls and the financial reporting process. The Company's independent registered public accounting firm, PwC, is responsible for performing an independent audit of the Company's financial statements and the Company's internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States), and issue a report on those financial statements. The Audit Committee is responsible for monitoring and overseeing these processes. As appropriate, the Audit Committee reviews and evaluates, and discusses with the Company's management, internal accounting, financial and internal auditing personnel and the independent registered public accounting firm, the following:

- the plan for, and the independent registered public accounting firm's report on, audits of the Company's financial statements;
- the Company's financial disclosure documents, including all financial statements and reports filed with the Commission or sent to shareholders;
- management's selection, application and disclosure of critical accounting policies;
- major changes in the Company's significant accounting practices, principles, controls or methodologies;
- significant developments or changes in accounting rules applicable to the Company; and
- the adequacy of the Company's internal controls and accounting, financial and internal auditing personnel.

The Audit Committee reviewed the Company's audited financial statements for the fiscal year ended December 31, 2006 and discussed these financial statements with the Company's management. Management represented to the Audit Committee that the Company's financial statements had been prepared in accordance with accounting principles generally accepted in the United States. The Audit Committee also reviewed and discussed the audited financial statements and the matters required by Statement on Auditing Standards No. 61 "Communication with Audit Committees," as amended (SAS 61), with PwC, the Company's independent registered public accounting firm. SAS 61 requires the Company's independent registered public accounting firm to discuss with the Company's Audit Committee, among other things, the following:

- methods to account for significant unusual transactions;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the registered public accounting firm's conclusions regarding the reasonableness of those estimates; and
- disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the financial statements.

The Company's independent registered public accounting firm also provided the Audit Committee with written disclosures and a letter required by Independence Standards Board Standard No. 1 "Independence Discussions with Audit Committees." Independence Standards Board Standard No. 1 requires registered public accounting firms annually to disclose in writing all relationships that in the auditor's professional opinion may reasonably be thought to bear on independence, confirm their perceived independence and engage in a discussion of independence. In addition, the Audit Committee discussed with the independent registered public accounting firm their independence from the Company. The Audit Committee also considered whether the independent registered public accounting firm's provision of the other, non-audit related, services to the Company, which are referred to below, is compatible with maintaining such independent registered public accounting firm's independence.

Based on its discussions with management and the independent registered public accounting firm and its review of the representations and information provided by management and the independent registered public accounting firm, the Audit Committee recommended to the Company's Board of Directors that the audited financial statements of the Company be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2006.

By the Audit Committee of the Board of Directors of MKS Instruments, Inc.

Louis P. Valente, Chairman
Robert R. Anderson
Gregory R. Beecher
Owen W. Robbins

**SECTION 16(a) BENEFICIAL
OWNERSHIP REPORTING COMPLIANCE**

Section 16(a) of the Exchange Act ("Section 16(a)") requires executive officers, directors and shareholders who beneficially own more than ten percent (10%) of the Company's stock to file initial reports of ownership on Form 3 and reports of changes in ownership on Form 4 with the Commission and any national securities exchange on which the Company's securities are registered. Executive officers, directors and greater than ten percent (10%) beneficial owners are required by the Commission's regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on a review of the copies of such forms furnished to the Company and written representations from the executive officers and directors, pursuant to Item 405 of Regulation S-K, the Company believes that all Section 16(a) filing requirements applicable to its officers, directors and greater than ten percent (10%) shareholders were complied with, except that an option exercise and sale were reported late for each of Messrs. Weigner, Kahl and Klimm, and an automatic sale upon vesting of restricted stock was filed late for Mr. Schneider.

**PROPOSAL TWO
RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM**

On February 12, 2007, the Audit Committee appointed PwC as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2007. PwC was the Company's independent registered public accounting firm for the fiscal year ended December 31, 2006.

Representatives of PwC are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they so desire and will be available to respond to appropriate questions from shareholders. In the event that the ratification of the appointment of PwC as the independent registered public accounting firm for the Company is not obtained at the Annual Meeting, the Board of Directors will reconsider its appointment.

THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSAL TO RATIFY THE APPOINTMENT OF PRICEWATERHOUSECOOPERS LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM OF THE COMPANY FOR THE FISCAL YEAR ENDING DECEMBER 31, 2007 IS IN THE BEST INTERESTS OF MKS AND ITS SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.

OTHER MATTERS

The Board of Directors does not know of any other matters which may come before the meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

All costs of solicitation of proxies will be borne by the Company. In addition to solicitations by mail, the Company's directors, officers and regular employees, without additional remuneration, may solicit proxies by telephone and personal interviews and the Company reserves the right to retain outside agencies for the purpose of soliciting proxies. Brokers, custodians and fiduciaries will be requested to forward proxy soliciting material to the owners of stock held in their names, and the Company will reimburse them for their reasonable out-of-pocket expenses incurred in connection with the distribution of proxy materials.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

For the years ended December 31, 2006 and 2005, aggregate fees for professional services rendered by the Company's independent registered public accounting firm, PwC, in the following categories were as follows:

	<u>2006</u>	<u>2005(1)</u>
Audit Fees	\$ 2,239,222	\$ 2,406,780
Audit-Related Fees	—	—
Tax Fees	378,746	456,820
All Other Fees	13,800	4,200
Total	\$ 2,631,768	\$ 2,867,800

(1) 2005 Audit Fees and Total have been adjusted from previously disclosed amounts to include fees incurred in 2005 which were paid in 2006.

Audit Fees for the years ended December 31, 2006 and 2005 were for professional services provided for the audit of the Company's consolidated financial statements and of the Company's internal control over financial reporting, statutory and subsidiary audits, consents and assistance with review of documents filed with the Commission.

Tax Fees for the years ended December 31, 2006 and 2005 were for services related to tax compliance, including the preparation of tax returns; and tax planning and tax advice, including assistance with acquisitions, mergers and foreign operations.

All Other Fees for the years ended December 31, 2006 and December 31, 2005 were for research software and a study on fringe related costs.

In 2006, \$300 (or less than 0.1% of total 2006 fees) and in 2005, \$2,700 (or 0.1% of total 2005 fees) of All Other Fees were provided under the de minimis exception to the Audit Committee pre-approval requirements.

Pre-Approval Policy and Procedures

The Audit Committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by the Company's independent registered public accounting firm. This policy generally provides that the Company will not engage its independent registered public accounting firm to provide audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, the Audit Committee may pre-approve specified types of services that are expected to be provided to the Company by its independent registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of service to be provided and is also generally subject to a maximum dollar amount.

The Audit Committee has also delegated to the Chairman of the Audit Committee the authority to approve any audit or non-audit services to be provided to the Company by its independent registered public accounting firm. Any approval of services by the Chairman of the Audit Committee pursuant to this delegated authority is reported on at the next meeting of the Audit Committee.

The Audit Committee has considered and determined that the provision of the non-audit services noted in the foregoing table is compatible with maintaining PwC's independence.

**DEADLINE FOR SUBMISSION OF SHAREHOLDER PROPOSALS
FOR THE 2008 ANNUAL MEETING**

Proposals of shareholders intended to be presented at the 2008 Annual Meeting of Shareholders must be received by the Company at its principal office in Wilmington, Massachusetts not later than November 30, 2007, for inclusion in the proxy statement for that meeting.

In addition, the Company's By-Laws (which are on file with the Commission) require that MKS be given advance notice of matters that shareholders wish to present for action at an Annual Meeting of Shareholders (other than matters included in MKS's proxy statement in accordance with Rule 14a-8 of the Exchange Act). The required written notice must be delivered to the Secretary of the Company at the principal offices of the Company at least 60 days prior to the Annual Meeting, but no more than 90 days prior to such meeting or it will be considered untimely. However, if less than 40 days notice of the Annual Meeting is provided to the shareholders, the written notice of the shareholder must be received by the Secretary of the Company no later than 10 days after the notice of the Annual Meeting was mailed or publicly disclosed. The advance notice provisions of the Company's By-Laws contain the requirements of the written notice of shareholders and supersede the notice requirement contained in Rule 14a-4(c)(1) under the Exchange Act.

IMPORTANT NOTICE REGARDING DELIVERY OF SECURITY HOLDER DOCUMENTS

Some banks, brokers and other nominee record holders are already "householding" proxy statements and annual reports. This means that only one copy of the Company's proxy statement or annual report may have been sent to multiple shareholders in your household. We will promptly deliver a separate copy of either document to you if you call or write us at the following address or phone number: **MKS Instruments, Inc., 90 Industrial Way, Wilmington, Massachusetts 01887, (978) 284-4000, Attn: Investor Relations**. If you want to receive separate copies of the annual report and proxy statement in the future, or if you are receiving multiple copies and would like to receive only one copy for your household, you should contact your bank, broker, or other nominee record holder, or you may contact us at the above address and phone number.

By Order of the Board of Directors,



Richard S. Chute
Secretary

March 28, 2007

THE BOARD OF DIRECTORS ENCOURAGES SHAREHOLDERS TO ATTEND THE MEETING. WHETHER OR NOT YOU PLAN TO ATTEND, YOU ARE URGED TO COMPLETE, DATE, SIGN AND RETURN THE ENCLOSED PROXY IN THE ACCOMPANYING ENVELOPE. A PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE MEETING AND YOUR COOPERATION WILL BE APPRECIATED. SHAREHOLDERS WHO ATTEND THIS MEETING MAY VOTE THEIR STOCK PERSONALLY EVEN THOUGH THEY HAVE SENT IN THEIR PROXIES.

Form of Proxy Card

ANNUAL MEETING OF SHAREHOLDERS OF
MKS INSTRUMENTS, INC.
MAY 7, 2007

Please detach and mail in the envelope provided.

MKS INSTRUMENTS, INC.
2007 ANNUAL MEETING OF SHAREHOLDERS
MAY 7, 2007

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned shareholder of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), hereby acknowledges receipt of the Notice of Annual Meeting of Shareholders and Proxy Statement, each dated March 28, 2007, and hereby appoints Leo Berlinghieri, Richard S. Chute and Ronald C. Weigner, and each of them acting singly, proxies and attorneys-in-fact, with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the 2007 Annual Meeting of Shareholders of the Company to be held on May 7, 2007, at 10:00 a.m. at the Company's headquarters, 90 Industrial Way, Wilmington, MA 01887, and at any adjournment(s) thereof, and to vote all shares of Common Stock which the undersigned would be entitled to vote if then and there personally present, on the matters set forth on the reverse side, and, in their discretion, upon any other matters which may properly come before the meeting.

This proxy, when properly executed, will be voted as directed on the reverse side, or, if no contrary direction is indicated, will be voted FOR the election of the two (2) nominees listed on the reverse side as Class II Directors of the Company, FOR proposal 2 and as said proxies deem advisable on such matters as may properly come before the meeting.

PLEASE DATE, SIGN AND MAIL YOUR PROXY CARD IN THE ENVELOPE PROVIDED AS SOON AS POSSIBLE.

(CONTINUED AND TO BE SIGNED ON THE REVERSE SIDE)

MKS INSTRUMENTS, INC.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSAL 2.

Vote on Directors

1. To elect two (2) Class II Directors for a term of three (3) years.

Nominees:

- 01) Cristina H. Amon
- 02) Richard S. Chute

- FOR ALL
- WITHHOLD FOR ALL
- FOR ALL EXCEPT

To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.

Vote on Proposals

2. To ratify the selection of PricewaterhouseCoopers LLP as the Company's independent auditors for the year ending December 31, 2007.

FOR
o

AGAINST
o

ABSTAIN
o

TO ENSURE YOUR REPRESENTATION AT THE ANNUAL MEETING, PLEASE MARK, SIGN AND DATE THIS PROXY AND RETURN IT AS PROMPTLY AS POSSIBLE.

NOTE: Please sign exactly as your name or names appear(s) on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

MATERIALS ELECTION

As of July 1, 2007, SEC rules permit companies to send you a notice that proxy information is available on the Internet, instead of mailing you a complete set of materials. Check the box to the right if you want to receive a complete set of future proxy materials by mail, at not cost to you. If you do not take action you may receive only a Notice.

Signature [PLEASE SIGN WITHIN BOX]

Date:

Signature (Joint Owners)

Date: