

# Manufacturing Barometer™

Business outlook report  
January 2009

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# Quarterly highlights

In the fourth quarter of 2008, PricewaterhouseCoopers interviewed 60 US-based industrial manufacturing executives about their current business performance, the state of the economy, and their expectations for business growth over the next 12 months. We then compared their responses with the prior quarter's results to see how the panel's 12-month outlook changed. The final step was to compare their views with a wider panel to show how the industry differs from the broader population.

Overall, US-based industrial manufacturers are expecting an average negative revenue growth over the next 12 months. Demand is the overwhelming concern, as oil/energy prices have plummeted and are no longer a major drag on growth. In the fourth quarter, the yearlong pattern of increasingly higher costs and prices reversed. An increase in market demand will be critical in the year ahead, either from international or domestic markets. International marketers remain hopeful that sales abroad will be a primary contributor to revenue.

## Key findings:

- **Industry growth stalls.** Senior executives of US-based manufacturers project an average minus 2.4 percent growth over the next 12 months. Twenty-five percent expect positive growth, but 34 percent are projecting zero growth, and 33 percent expect negative growth.
- **Pessimism continues to spread.** Pessimism toward the US and world economies over the next 12 months is in sync, with 70 percent pessimistic toward the US economy and 69 percent pessimistic toward the world economy. Most others are uncertain. Those who are optimistic about the US and world economy is at a survey low of 5 percent and 4 percent, respectively.
- **International sales preserve hope.** International sales turned negative in the fourth quarter for industrial manufacturers: up for 28 percent, but down for 44 percent. However, industrial manufacturers selling abroad project a solid 37 percent contribution to total revenue over the next 12 months, above last quarter and last year. These senior executives seem hopeful that sales abroad will hold fast and not slip as badly as domestic sales.

- **Market demand stunts growth.** Among panelists, concern about lack of demand is the overwhelming potential barrier to growth over the next 12 months, cited by 85 percent. Concern about decreasing profitability is next, cited by 62 percent. Higher interest rates weighed less on those surveyed, but concerns about available capital and taxation policies were on the rise as potential barriers to growth over the next 12 months.
- **Cost-price spiral ends.** Notably lower oil/energy prices and commodity prices in the fourth quarter helped break the yearlong cost-price climb. Only 25 percent reported increased costs, while 32 percent reported decreases – a net of 7 percent reporting decreased costs. Similarly, only 15 percent raised their prices, and 33 percent lowered them – a net of 18 percent decreasing prices.
- **Investments, M&A activity idle.** Plans for major new investments of capital over the next 12 months continued on pace with the prior quarter, dropping one point to 33 percent. Operational spending increases were cited by 57 percent of industrial manufacturers, a drop-off from 64 percent in the prior quarter and well below last year's 83 percent. Projected M&A activity was constant with the prior quarter, and positive initiatives over the next 12 months include plans to expand to new markets abroad (32 percent) and to form new strategic alliances (30 percent).
- **More workforce reductions slated.** Only 10 percent plan net new hirings, while 35 percent will be reducing their workforces. Composite new hiring plans for the next 12 months are negative, with workforces contracting 3.2 percent or more.

A quarter-over-quarter comparison of key indicators shows the business outlook for the next 12 months and how the views of the panel have changed each quarter (see chart 1.1). The pages that follow provide a detailed look at each question for the past five quarterly surveys.

# Key indicators for the business outlook

Chart 1.1 Key indicators for the business outlook

A quarter-over-quarter comparison of the key indicators shows how the 12-month outlook has changed each quarter. The change column indicates the movement of opinion from the past two quarters.

Business outlook, next 12 months among industrial manufacturers	2007	2008				Change	Page
	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08	3Q - 4Q '08	
Optimistic about US economy	29%	12%	8%	6%	5%	=	7
Optimistic about world economy	64%	38%	37%	7%	4%	↓	9
Expect positive revenue growth	81%	70%	68%	54%	25%	↓	19
Average growth rate expected	5.4%	4.6%	3.7%	2.8%	-2.4%	↓	19
Planning major new investments	41%	52%	50%	34%	33%	=	23
New investments as a % of sales	9.0%	5.6%	5.4%	6.1%	8.3%	↑	23
Planning to hire	36%	32%	32%	12%	10%	=	21
New workers as a % of workforce (net)	+0.1%	-0.3%	+0.1%	-4.0%	-3.2%	=	21
Expected barriers to growth							
• Lack of demand	61%	62%	60%	82%	85%	↑	25
• Decreasing profitability	31%	48%	50%	64%	62%	=	25
• Monetary exchange rate	44%	57%	40%	36%	38%	=	25
• Legislative/ Regulatory pressures	29%	35%	38%	36%	37%	=	25
• Capital constraints	15%	32%	23%	26%	37%	↑	25
• Taxation policies	20%	18%	25%	22%	30%	↑	25
• Competition from foreign markets	44%	25%	37%	34%	25%	↓	25
• Oil/energy prices	66%	68%	78%	62%	25%	↓	25
• Higher interest rates	29%	12%	17%	30%	13%	↓	25
• Pressure for increased wages	25%	30%	50%	20%	10%	↓	25
• Lack of qualified workers	22%	23%	18%	26%	3%	↓	25

# Economic views

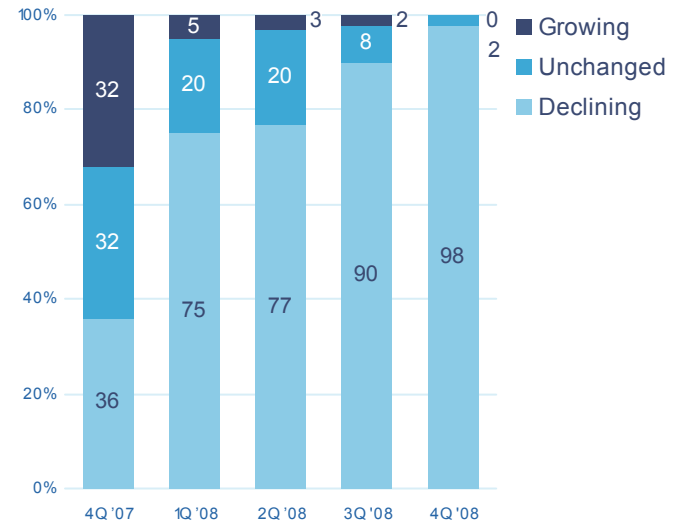
# View of the US economy, this quarter

## Which best describes your view of the US economy this quarter?

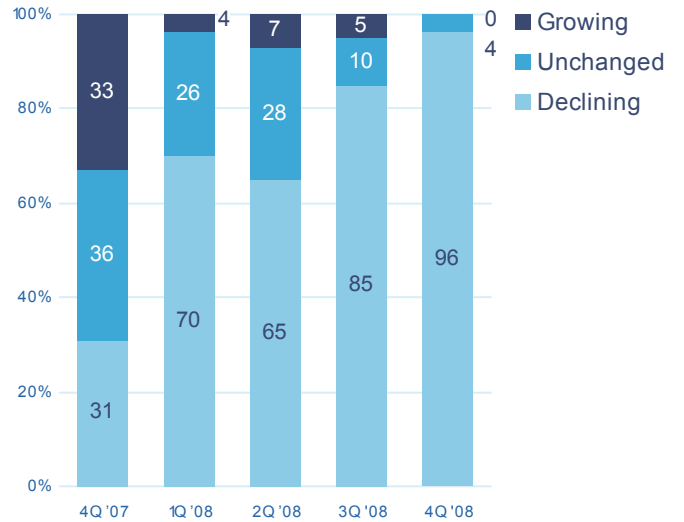
Almost all industrial manufacturing executives interviewed — 98 percent — believe the US economy declined in the fourth quarter, 8 points more than last quarter's 90 percent. None of them believed it grew, and only 2 percent believed it was unchanged.

Chart 2.1 View of the US economy, this quarter

### Industrial manufacturers



### All respondents



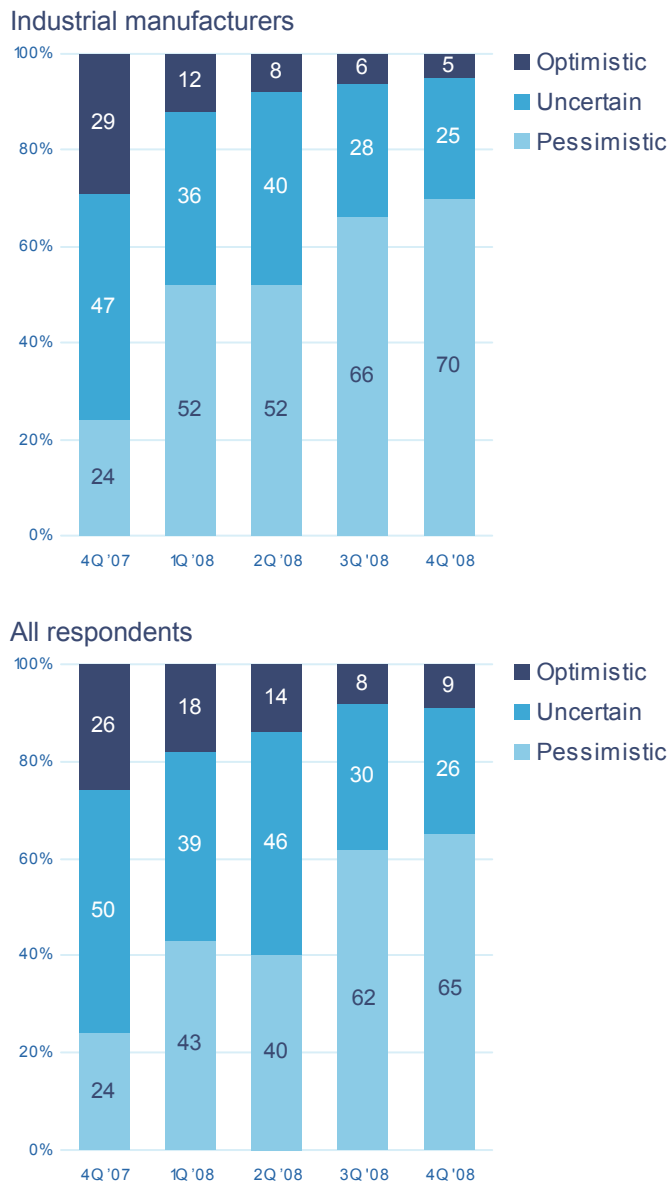
Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# View of the US economy, next 12 months

Looking at the next 12 months, how do you feel about the prospects for the US economy?

In view of the US credit crisis, only 5 percent of US-based industrial manufacturers expressed optimism about the 12-month outlook for the US economy, slightly below the prior quarter's 6 percent but sharply below last year's 29 percent. Seventy percent are pessimistic, and 25 percent are uncertain. A year ago, only 24 percent were pessimistic.

Chart 2.2 View of the US economy, next 12 months



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

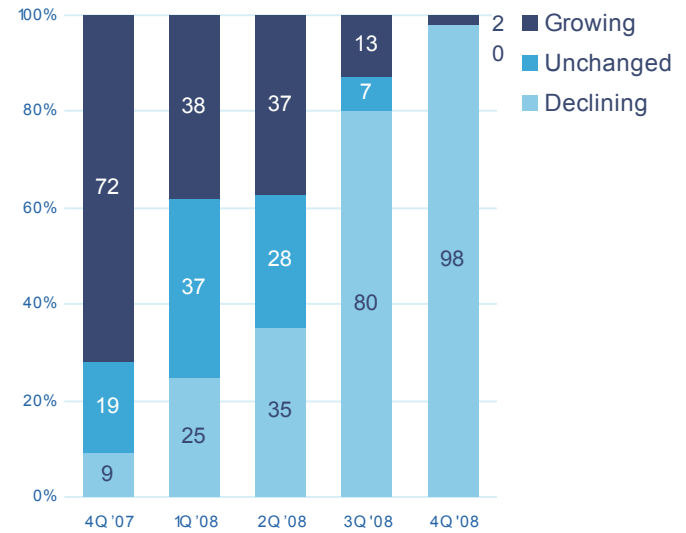
# View of the world economy, this quarter

## Which best describes your view of the world economy this quarter? (international marketers only)

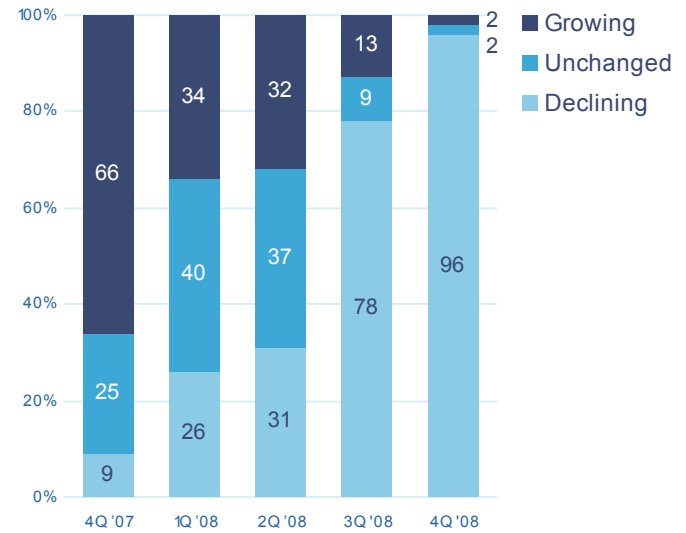
Attitudes toward the US and world economies were in sync in the fourth quarter 2008. Virtually all of those marketing abroad – 98 percent – believe the world economy declined in the fourth quarter, 18 points above the prior quarter.

Chart 2.3 View of the world economy, this quarter

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 those marketing abroad, Industrial manufacturers n=54, All respondents, n=90

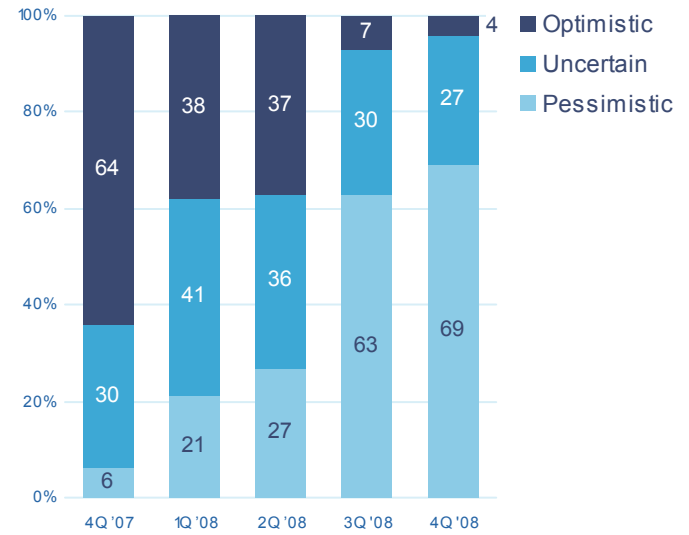
# View of the world economy, next 12 months

Looking at the next 12 months, how do you feel about the prospects for the world economy? (international marketers only)

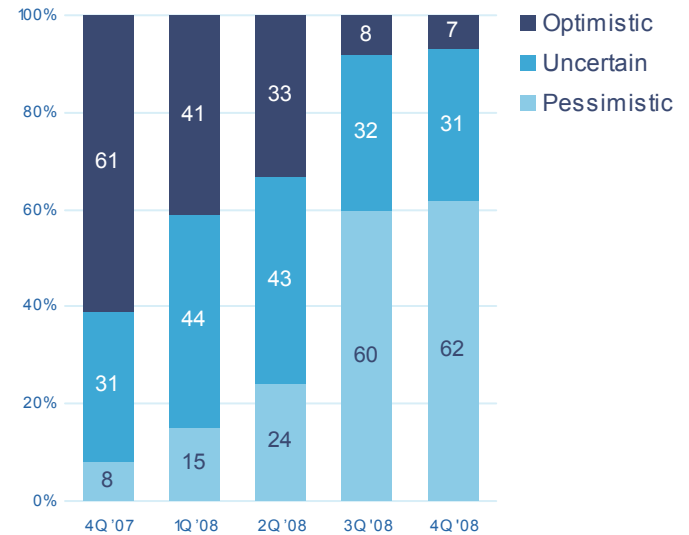
Only 4 percent of US-based industrial manufacturers who market abroad are optimistic about the prospects for the world economy over the next 12 months, slightly less than the 7 percent last quarter. But a year ago, 64 were optimistic. Twenty-seven percent expressed uncertainty, and 69 percent said they are pessimistic.

Chart 2.4 View of the world economy, next 12 months

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 those marketing abroad, Industrial manufacturers n=54, All respondents, n=90

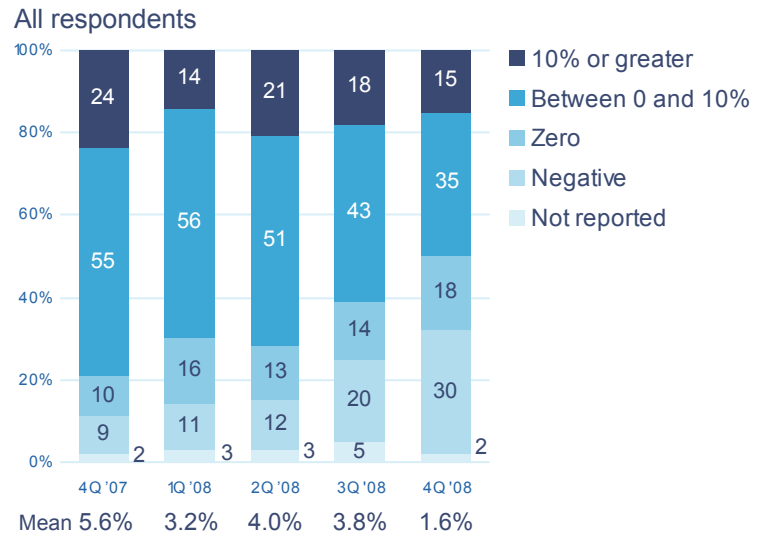
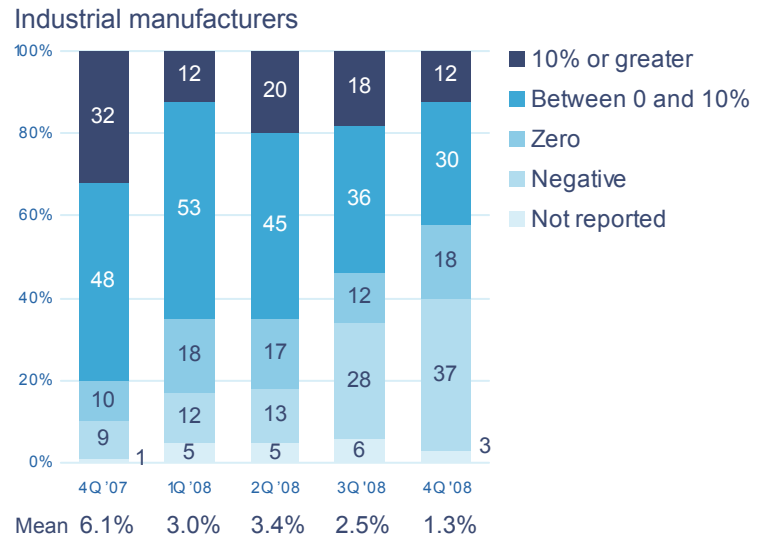
# Company performance

# Company revenue growth, calendar year

## What is your company's estimated revenue growth rate for the calendar year?

In the fourth quarter of 2008, 42 percent of US-based industrial manufacturers expected positive growth – 12 percent double-digit growth, and 30 percent single-digit growth. Overall, the composite average growth estimate dipped to plus 1.3 percent from plus 2.5 percent in the prior quarter, and it is well below last year's plus 6.1 percent.

Chart 3.1 Company revenue growth, calendar year



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

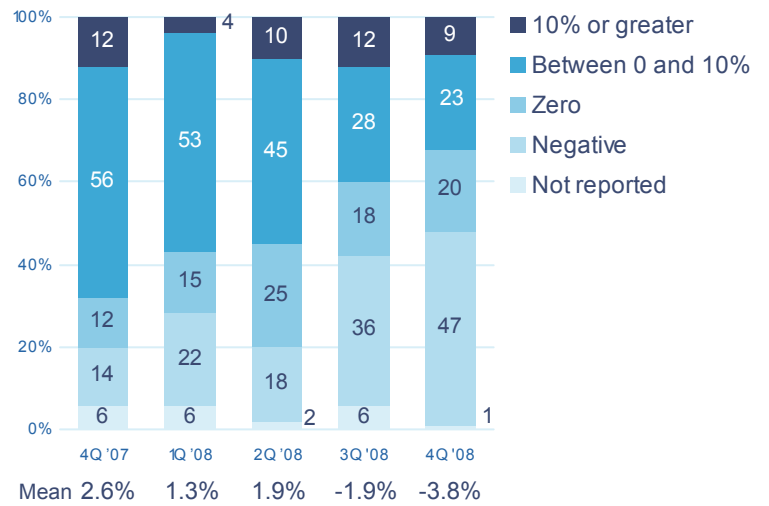
# Industry growth, calendar year

## What is your industry's estimated growth rate for the calendar year?

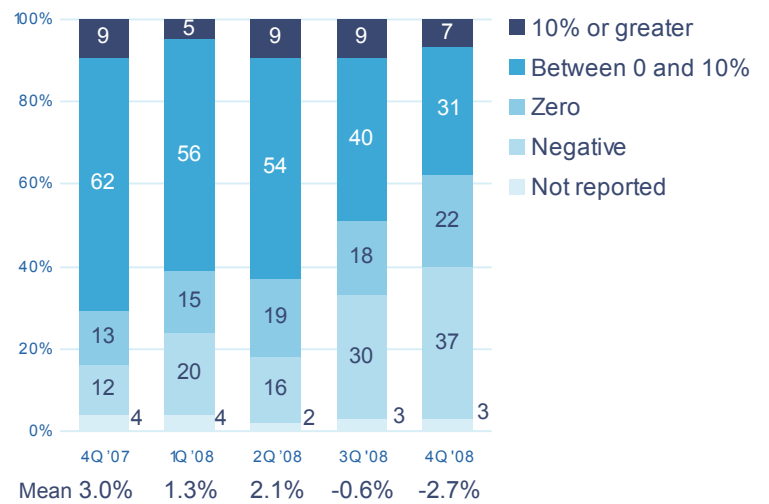
Industry growth for the calendar year is expected to average minus 3.8 percent, below the prior quarter's minus 1.9 percent. US-based industrial manufacturers interviewed anticipate an average growth rate of plus 1.3 percent for their companies in 2008, notably better than the estimated negative growth rate for their industry.

Chart 3.2 Industry growth, calendar year

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

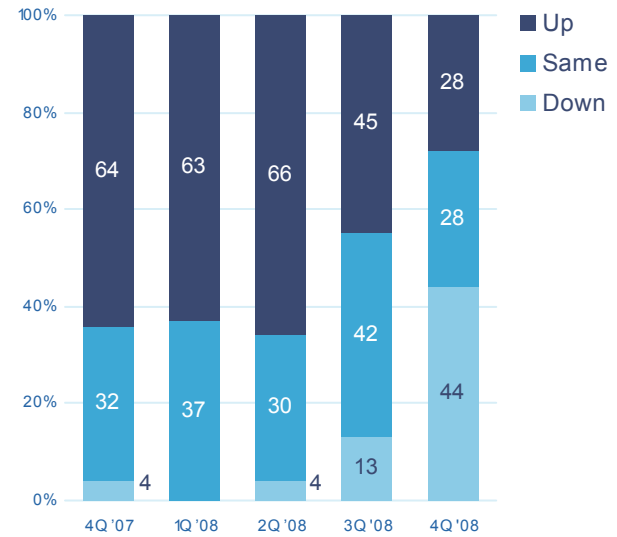
# International sales

## Are international sales up, down, or the same compared with three months ago?

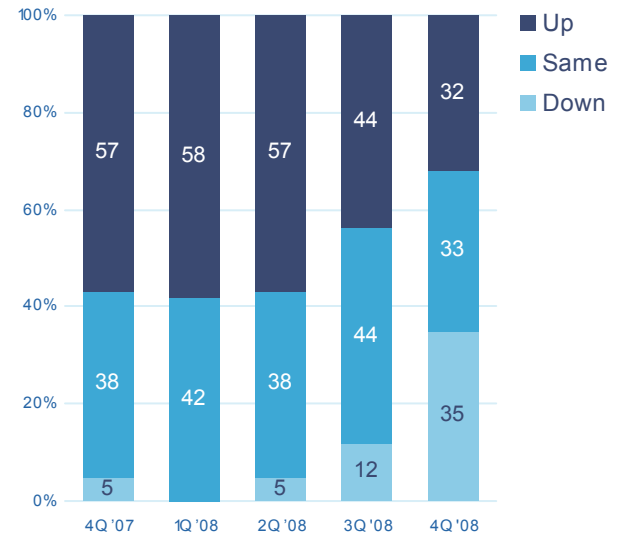
International markets turned negative for US-based industrial manufacturers that sell abroad. In the fourth quarter, only 28 percent of international marketers increased sales abroad, while 44 percent reported a decrease, a sharp contrast to stronger performances in the prior four quarters.

Chart 3.3 International sales

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 those marketing abroad, Industrial manufacturers n=54, All respondents, n=90

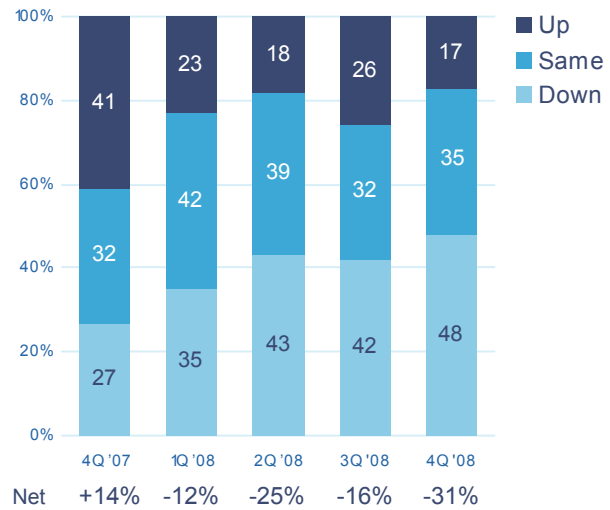
# Changes in gross margins

Are gross margins up, down, or the same compared with three months ago?

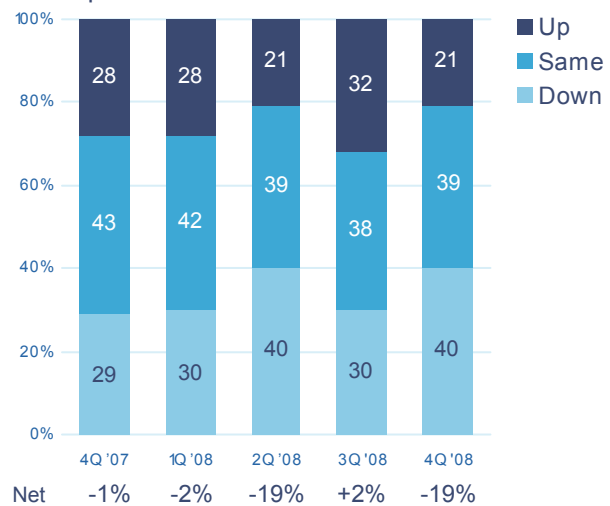
In the fourth quarter of 2008, gross margins were higher for 17 percent of US-based industrial manufacturers but lower for 48 percent, a net minus 31 percent – continuing the downward pattern of the past three quarters.

Chart 3.4 Changes in gross margins

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

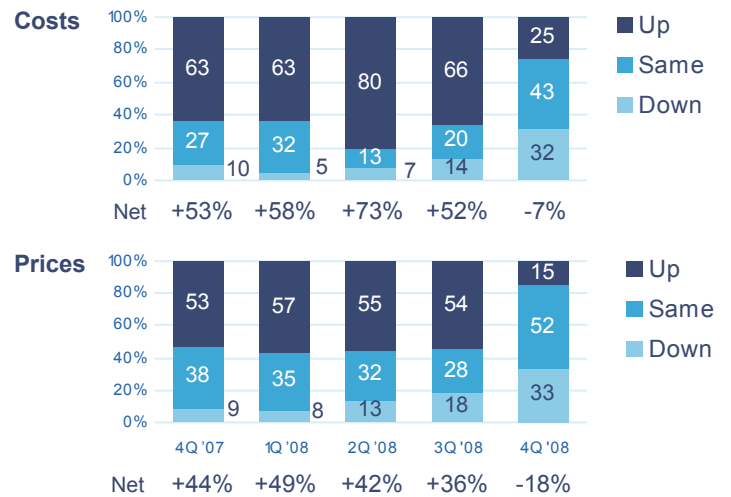
# Changes in costs and prices

## Are costs up, down, or the same compared with three months ago? Prices?

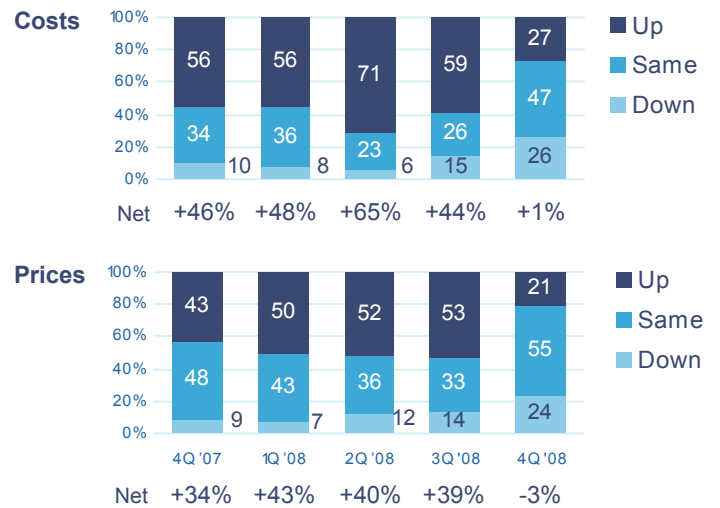
In the fourth quarter, the yearlong pattern of increasingly higher costs and prices reversed. Only 25 percent of US-based industrial manufacturers reported higher costs, and 32 percent reported lower costs — a net minus 7 percent with lower costs. Industrial manufacturers responded to fewer cost increases in the fourth quarter by raising fewer prices. Only 15 percent raised prices, while 33 percent lowered them, a net minus 18 percent with higher prices.

Chart 3.5 Changes in costs and prices

### Industrial manufacturers



### All respondents



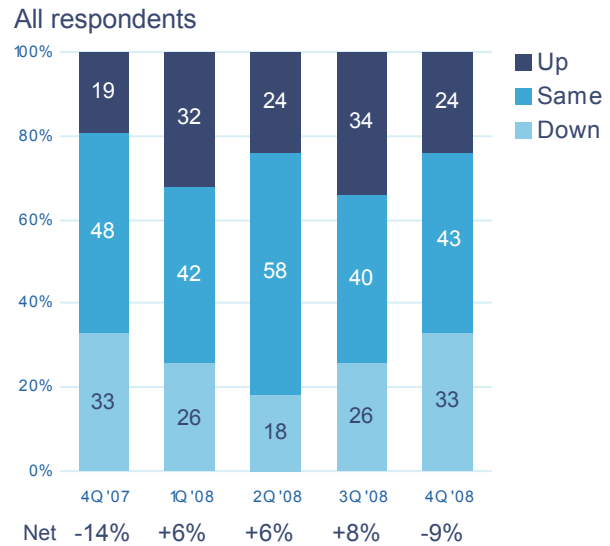
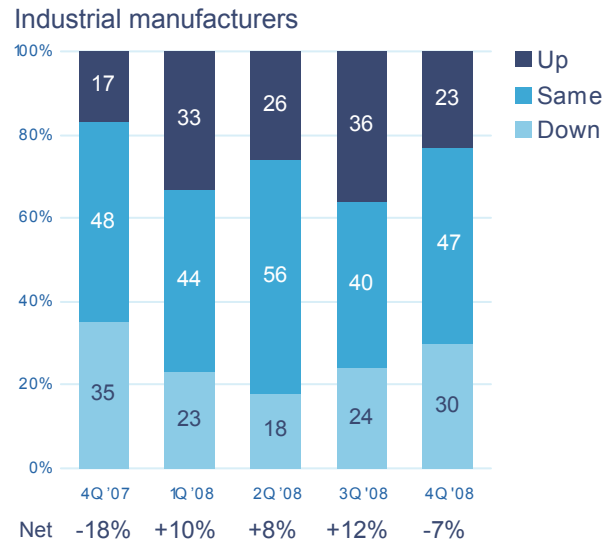
Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# Inventory movement

Are finished inventories as a percent of sales up, down, or the same compared with three months ago? (product companies only)

Breaking a three-quarter pattern, more US-based industrial manufacturers reported lower inventories (30 percent) than higher inventories (23 percent) – a net 7 percent with lower inventories.

Chart 3.6 Inventory movement



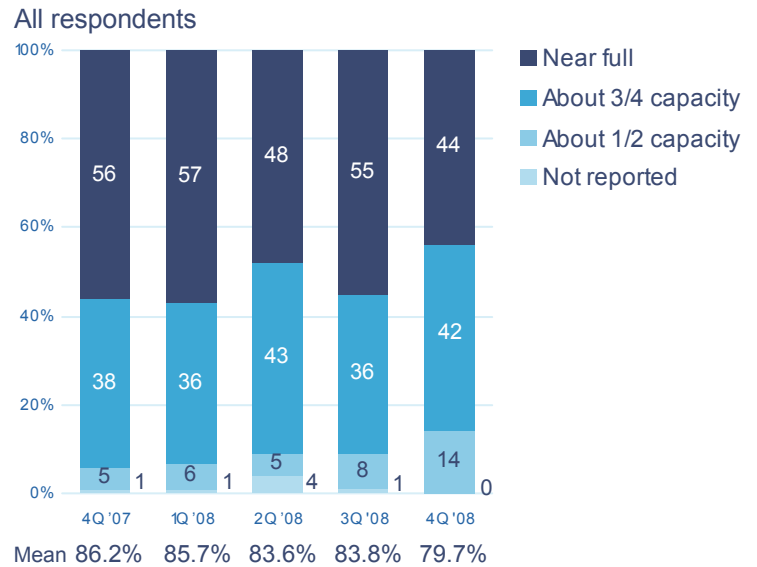
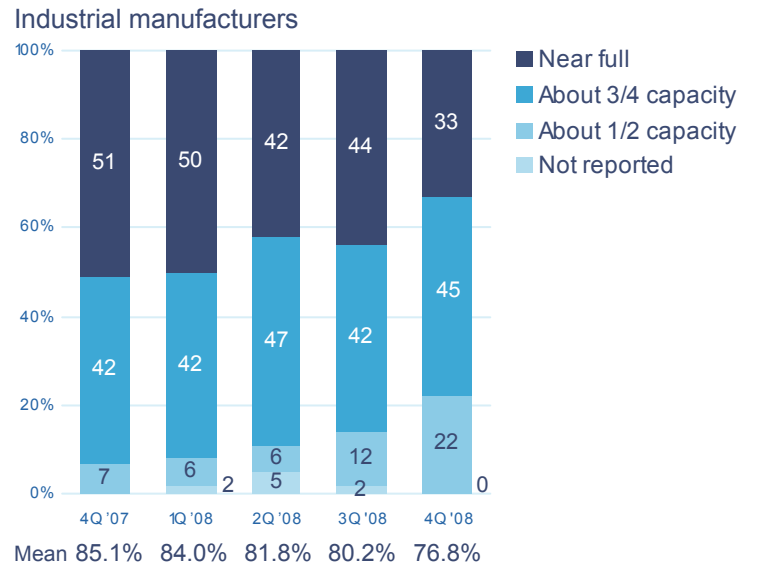
Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# Level of operating capacity

## What is your organization's current operating capacity?

Operating capacity is an estimate of the current level of permanent staffing compared with what is needed for full-capacity output. In the fourth quarter of 2008, the average level of operating capacity for US-based industrial manufacturers dropped off sharply to an estimated 76.8 percent — well below the prior quarter and last year. This quarter, only 33 percent of industrial manufacturers claimed to be at or near capacity.

Chart 3.7 Level of operating capacity



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# Business outlook, next 12 months

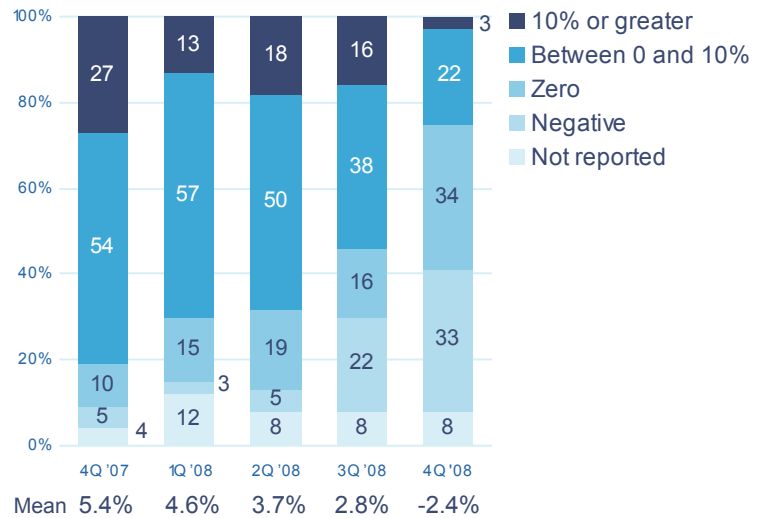
# Revenue growth, next 12 months

## What is your organization's estimated revenue growth rate for the next 12 months?

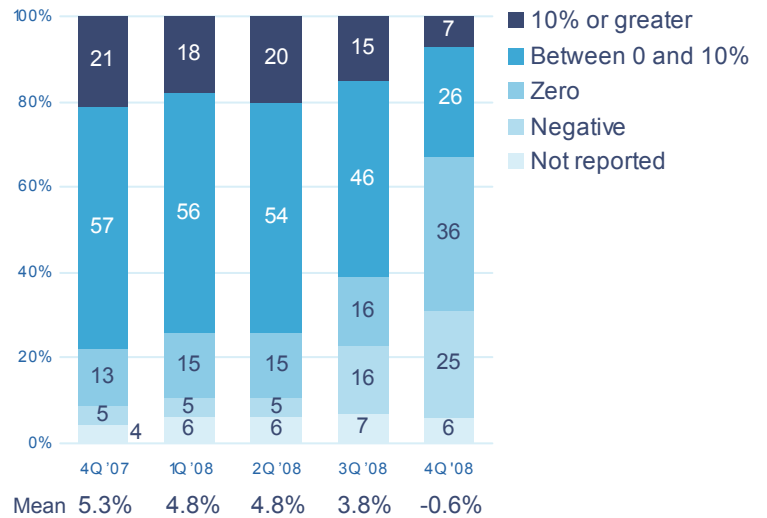
US-based industrial manufacturers projected a minus 2.4 percent average growth rate for the next 12 months, below the prior quarter's projected plus 2.8 percent and well below last year's plus 5.4 percent. Over the next 12 months, only 25 percent are planning for growth — 3 percent expect double-digit revenue growth, and 22 percent expect single-digit growth. Looking ahead, more businesses expect negative growth than positive growth — 33 percent versus 25 percent.

Chart 4.1 Revenue growth, next 12 months

### Industrial manufacturers



### All respondents



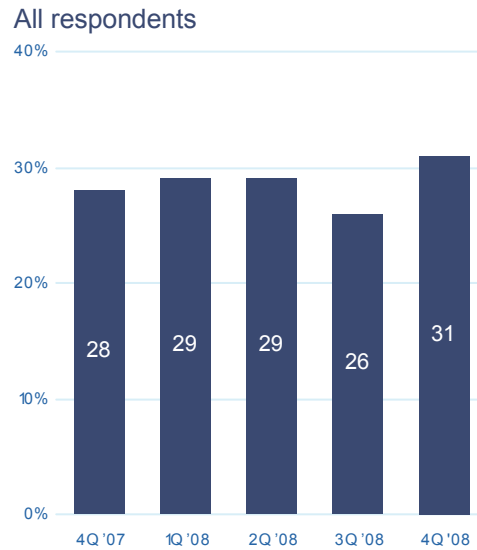
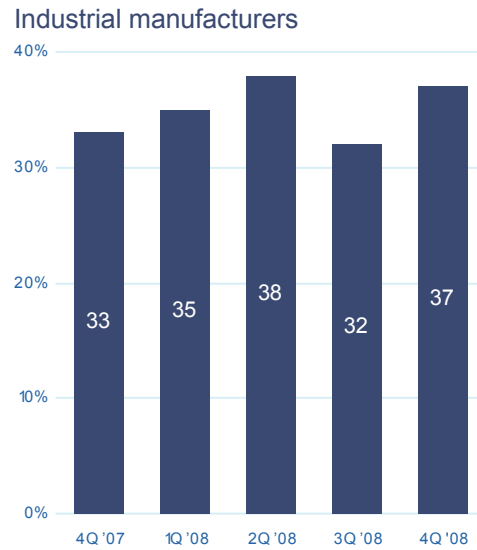
Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# International sales, next 12 months

What percent of your business's total revenue over the next 12 months do you expect to be derived from international sales?

Of those selling abroad, the projected contribution of international sales to total revenue is 37 percent over the next 12 months, a rise from the prior quarter's 32 percent and above last year's 33 percent. International marketers still expect to draw an increasing percent of their now-declining revenue from world markets.

Chart 4.2 International sales, next 12 months



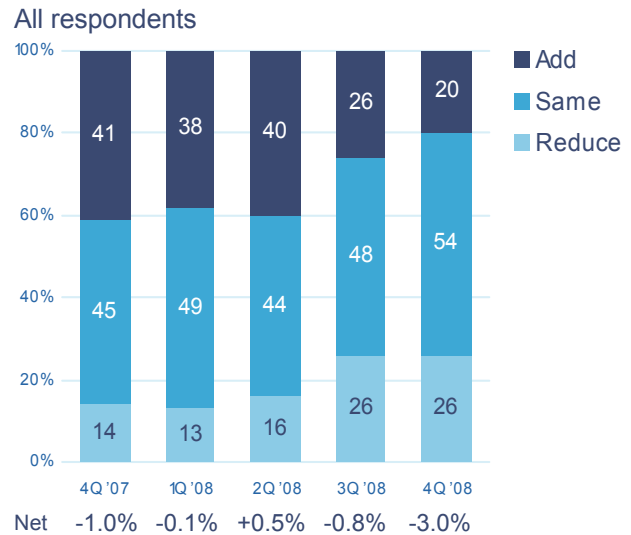
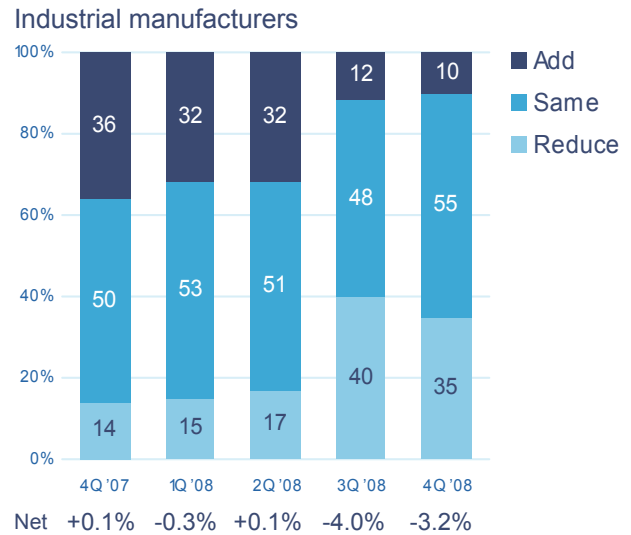
Note: In 4Q 2008 those marketing abroad, Industrial manufacturers n=54, All respondents, n=90

# Percent planning to hire

## Do you plan to add or reduce the number of full-time equivalent employees over the next 12 months?

In line with last quarter, only 10 percent of US-based industrial manufacturers interviewed plan to add employees to their workforces over the next 12 months, but 35 percent plan to reduce the number of full-time equivalent employees. The net workforce projection is minus 3.2 percent, similar to last quarter's minus 4.0 percent net projection. A year ago, it was a plus 0.1 percent.

Chart 4.3 Percent planning to hire



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

## Percent planning to hire by type of employee

What types of employees do you plan to add or reduce over the next 12 months?

Only 10 percent of industrial manufacturers interviewed are planning to hire over the next 12 months, slightly below last quarter but 26 points below a year ago.

Chart 4.4 Percent planning to hire by type of employee

### Industrial manufacturers

	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
Planning to hire (net)	36%	32%	32%	12%	10%
• Professionals/technicians	26%	23%	27%	6%	5%
• Skilled labor	24%	23%	8%	4%	3%
• White collar support	14%	13%	10%	2%	3%
• Production workers	17%	13%	10%	2%	2%
• Sales/marketing	12%	12%	15%	4%	2%

### All respondents

	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
Planning to hire (net)	41%	38%	40%	26%	20%
• Professionals/technicians	27%	26%	30%	18%	11%
• Skilled labor	20%	18%	10%	8%	5%
• White collar support	14%	17%	15%	10%	8%
• Production workers	13%	13%	11%	6%	6%
• Sales/marketing	14%	14%	18%	11%	6%

Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

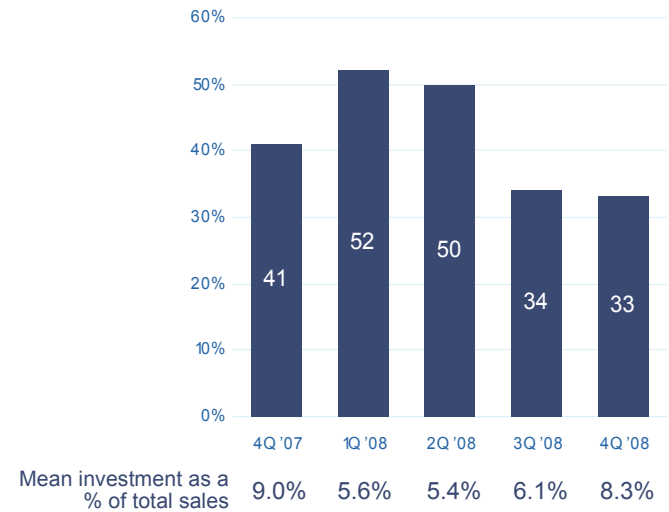
## Percent planning major new investments of capital

Are you actively planning any major new investments of capital over the next 12 months? If so, what percent of total sales do you expect to invest?

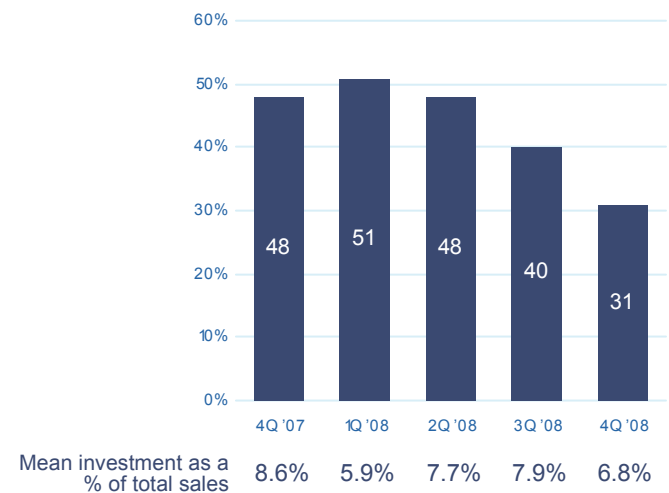
Thirty-three percent of US-based industrial manufacturers interviewed plan major new investments of capital during the next 12 months, similar to the prior quarter but 8 points below last year's 41 percent. The mean investment as a percentage of total sales rose to 8.3 percent, in line with 9.0 percent a year ago.

Chart 4.5 Percent planning major new investments of capital

### Industrial manufacturers



### All respondents



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

## Percent planning to increase operational spending

### Over the next 12 months, where do you expect to increase spending?

Looking at the next 12 months, three types of increased expenditures lead the way among US-based industrial manufacturers: geographic expansion, information technology, and new product or service introductions. Geographic expansion rose 10 points to 30 percent and is in line with a year ago. IT rose 4 points quarter-to-quarter to 28 percent but is well below last year's 48 percent.

Chart 4.6 Percent planning to increase operational spending

Industrial manufacturers					
	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
Percent planning to increase spending (net)	83%	75%	77%	64%	57%
• Geographic expansion	31%	27%	35%	20%	30%
• Information technology	48%	40%	38%	24%	28%
• New product or service introduction	43%	38%	48%	26%	23%
• Facilities expansion	34%	25%	27%	20%	18%
• Business acquisition	34%	33%	30%	26%	18%
• Research and development	36%	35%	40%	24%	15%
• Marketing & sales promotion	29%	23%	13%	14%	7%
• Internet commerce	9%	15%	17%	12%	3%
• Advertising	15%	15%	12%	12%	2%
All respondents					
	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
Percent planning to increase spending (net)	83%	84%	78%	69%	58%
• Geographic expansion	31%	27%	30%	23%	28%
• Information technology	49%	46%	43%	29%	33%
• New product or service introduction	44%	36%	48%	30%	21%
• Facilities expansion	31%	29%	29%	24%	20%
• Business acquisition	37%	33%	30%	25%	22%
• Research and development	26%	27%	29%	17%	15%
• Marketing & sales promotion	32%	22%	16%	18%	14%
• Internet commerce	14%	17%	18%	13%	7%
• Advertising	22%	14%	12%	15%	10%

Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# Expected barriers to business growth

Over the next 12 months, will any of the following represent barriers to business growth?

Two major potential barriers to business growth are expected during the next 12 months — lack of demand and decreasing profitability. Concern about lack of demand is overwhelmingly the chief barrier among respondents, up 3 points to a survey high of 85 percent.

Chart 4.7 Expected barriers to business growth



Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

## Plans for M&A and other business initiatives

Over the next 12 months, do you expect to participate in any of the following new business initiatives?

Plans for M&A activity among US-based industrial manufacturers during the next 12 months remained at 32 percent in the fourth quarter. Twenty-five percent plan to purchase another business, 8 percent indicated they might divest parts of their businesses, and 3 percent plan equity carve-outs or spin-offs. Plans to expand to new markets abroad remained positive, at 32 percent, along with new strategic alliances, at 30 percent.

Chart 4.8 Plans for M&A and other business initiatives

### Industrial manufacturers

	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
New business initiatives (net)	66%	60%	63%	70%	60%
• M&A activity (net)	44%	37%	40%	32%	32%
- Purchase another business	36%	33%	33%	28%	25%
- Sale part/all own business	14%	7%	10%	2%	8%
- Equity carve-out/spin-off	9%	8%	8%	4%	3%
• Expand to new markets abroad	29%	30%	30%	32%	32%
• New strategic alliance	37%	30%	23%	32%	30%
• New joint venture	27%	30%	27%	28%	25%
• New facilities abroad	20%	25%	17%	20%	20%
• Reduce activity in markets abroad	14%	10%	10%	16%	15%
• Close/reduce facilities abroad	10%	10%	5%	10%	13%

### All respondents

	4Q '07	1Q '08	2Q '08	3Q '08	4Q '08
New business initiatives (net)	67%	60%	62%	63%	60%
• M&A activity (net)	43%	40%	40%	32%	33%
- Purchase another business	36%	36%	31%	27%	27%
- Sale part/all own business	14%	7%	11%	5%	9%
- Equity carve-out/spin-off	6%	9%	8%	5%	5%
• Expand to new markets abroad	29%	32%	29%	26%	30%
• New strategic alliance	40%	32%	23%	30%	27%
• New joint venture	28%	27%	29%	26%	25%
• New facilities abroad	14%	17%	12%	13%	16%
• Reduce activity in markets abroad	10%	10%	8%	12%	12%
• Close/reduce facilities abroad	8%	5%	3%	5%	9%

Note: In 4Q 2008 Industrial manufacturers n=60, All respondents, n=103

# Survey demographics and research methodology

## Demographics

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Who	Senior executives of US-based, industrial manufacturing organizations	
Interview dates	November 7, 2008 to January 16, 2009	
	<b>Industrial manufacturers (60)</b>	<b>All respondents (103)</b>
Average number of employees	8,917	10,107
Average business unit revenue	\$3.22 billion	\$3.65 billion
Average enterprise revenue	\$9.22 billion	\$9.96 billion
Market capitalization	\$6.16 billion	\$6.22 billion
Industry sectors	Products 100% Manufacturing 100% Trade/Distribution --- All other --- Services ---	Products 81% Manufacturing 72% Trade/Distribution 2% All other 7% Services 19%

## Methodology

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PricewaterhouseCoopers' Manufacturing Barometer is a quarterly telephone survey conducted by the independent research firm BSI Global Research Inc. Our regular survey panel consists of senior executives from a geographically balanced sample of large companies in the United States. Ninety-five percent of the panelists hold titles such as president, CEO, CFO, VP of finance, treasurer, controller, internal audit director or other related title.

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## About the research:

The Manufacturing Barometer is one in a series of quarterly business outlook surveys from PricewaterhouseCoopers. The survey provides a view on the 12-month outlook for revenue growth, new investments, new hiring plans, emerging business barriers and more. In addition to the business outlook, we hear from our panelists about special issues they face as the business climate changes. Results of the quarterly business outlook surveys and special issue surveys are available from [www.barometersurveys.com](http://www.barometersurveys.com).

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