

# Manufacturing Barometer™

Business outlook 2Q 2008

# Contents

<b>1 Quarterly highlights</b>	<b>Page</b>
1.1 Key indicators for the business outlook	4
<b>2 Economic views</b>	
2.1 View of US economy, this quarter	6
2.2 View of US economy, next 12 months	7
2.3 View of world economy, this quarter	8
2.4 View of world economy, next 12 months	9
<b>3 Company performance</b>	
3.1 Company revenue growth, calendar year	11
3.2 Industry growth, calendar year	12
3.3 International sales	13
3.4 Changes in gross margins	14
3.5 Changes in costs and prices	15
3.6 Inventory movement	16
3.7 Level of operating capacity	17
<b>4 Business outlook, next 12 months</b>	
4.1 Revenue growth, next 12 months	19
4.2 International sales, next 12 months	20
4.3 Percent planning to hire	21
4.4 Percent planning to hire by type of employee	22
4.5 Percent planning major new investments of capital	23
4.6 Percent planning to increase operational spending	24
4.7 Expected barriers to business growth	25
4.8 Plans for M&A and other business initiatives	26
<b>5 Survey demographics and research methodology</b>	<b>27</b>

# Quarterly highlights

In 2Q 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 continuing to adjust to a slower-paced domestic economy. The drain of higher oil/energy costs is becoming more difficult to offset and will continue to be a challenge as it spreads across the general supplier and customer base in the second half of 2008. The strength of international sales will be of increasing importance.

Key findings:

- **The majority are pessimistic about the US economy.** Ninety-two percent of senior executives surveyed are either pessimistic (52 percent) or uncertain (40 percent) about the US economy's prospects over the next year. Only 8 percent are optimistic the US economy will grow. Among those marketing abroad, 37 percent are optimistic the world economy will grow. Those who have a pessimistic outlook about the world economy rose to 27 percent, and uncertainty rules the remainder.
- **International sales climb.** Of those marketing abroad, 66 percent reported an increase in international sales, and only 4 percent reported a decrease. Over the next 12 months, international sales are projected to be 38 percent of total revenue, three points higher than in 1Q 2008.
- **Growth looks positive but slow.** Own-company 12-month revenue growth projections dipped, from 4.6 percent in 1Q 2008 to 3.7 percent in 2Q 2008, a 20 percent drop. Most believe revenue will grow, with 18 percent expecting double-digit growth and 50 percent single-digit growth. Few expect negative growth (5 percent).
- **Oil/energy prices are a drag.** More than three-fourths (78 percent) view oil/energy prices as the leading potential barrier to own-company growth over the next 12 months – up 10 points to a new high for the survey. This oil/energy vulnerable segment projects a 1.4 percent rate of revenue growth over the next 12 months versus 11.1 percent projected by those who say they are not oil/energy vulnerable. Fifty-three percent of the oil/energy vulnerable view profitability as a potential barrier to growth over the next 12 months, indicative of a harmful profit-squeeze. Costs were higher for 83 percent of this segment, prices up for 60 percent, and gross margins were tighter in 2Q 2008.
- **Other barriers emerged.** Three other strong headwinds were cited by 50 percent or more of industrial manufacturers: concern about lack of demand; decreasing profitability; and pressure to increase wages.
- **Investments, M&A plans steady.** Despite the difficult times, plans for major new investments of capital are continuing. Half are planning new investments, but the rate of investment is a lower mean at 5.4 percent of sales. Operational spending increases also are in line with the prior quarter, with an important focus on new product or service introductions, research and development and geographic expansion. M&A activity plans also held up quarter-to-quarter.
- **Overall, quarterly gross margins turned negative.** Pricing is chasing higher costs but continues to fall behind for many industrial manufacturers. Gross margins were up for 18 percent but down for 43 percent for a net negative 25 percent. Costs were higher for more firms: 80 percent reported costs were up, 7 percent down, for a net 73 percent with higher costs. Yet fewer raised prices: 55 percent reported prices were up, 13 percent down, for a net of 42 percent.
- **Few workforce additions are planned.** In line with 1Q 2008, 32 percent plan net new hiring, and only 17 percent expect to reduce their workforces. Composite new hiring is flat, averaging a plus 0.1 percent.

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
	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08	1Q - 2Q '08	
Optimistic about US economy	62%	45%	29%	12%	8%	↓	7
Optimistic about world economy	78%	79%	64%	38%	37%	=	9
Expect positive revenue growth	84%	77%	81%	70%	68%	=	19
Average growth rate expected	5.7%	6.5%	5.4%	4.6%	3.7%	↓	19
Planning major new investments	57%	42%	41%	52%	50%	=	23
New investments as a % of sales	9.4%	8.7%	9.0%	5.6%	5.4%	=	23
Planning to hire	51%	52%	36%	32%	32%	=	21
New workers as a % of workforce (net)	-0.4%	+0.4%	+0.1%	-0.3%	+0.1%	=	21
Expected barriers to growth							
• Oil/energy prices	59%	57%	66%	68%	78%	↑	25
• Lack of demand	34%	53%	61%	62%	60%	=	25
• Decreasing profitability	21%	48%	31%	48%	50%	=	25
• Pressure for increased wages	23%	32%	25%	30%	50%	↑	25
• Monetary exchange rate	30%	28%	44%	57%	40%	↓	25
• Legislative/ Regulatory pressures	36%	50%	29%	35%	38%	=	25
• Competition from foreign markets	53%	43%	44%	25%	37%	↑	25
• Taxation policies	23%	32%	20%	18%	25%	↑	25
• Capital constraints	13%	22%	15%	32%	23%	↓	25
• Lack of qualified workers	30%	37%	22%	23%	18%	↓	25
• Higher interest rates	28%	35%	29%	12%	17%	↑	25

# Economic views

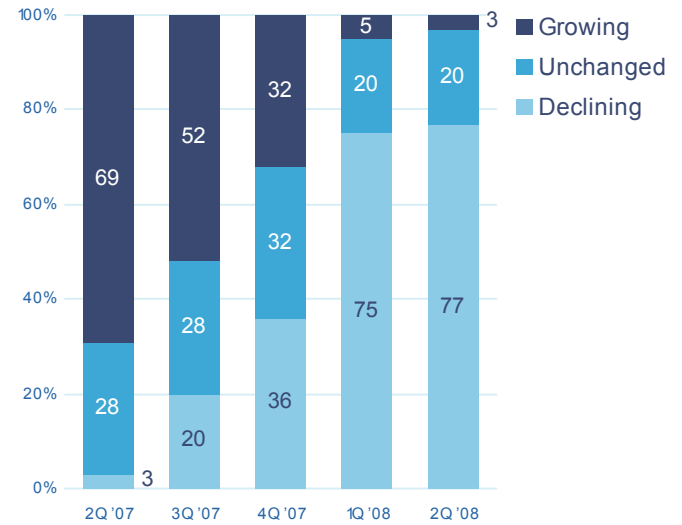
# View of the US economy, this quarter

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

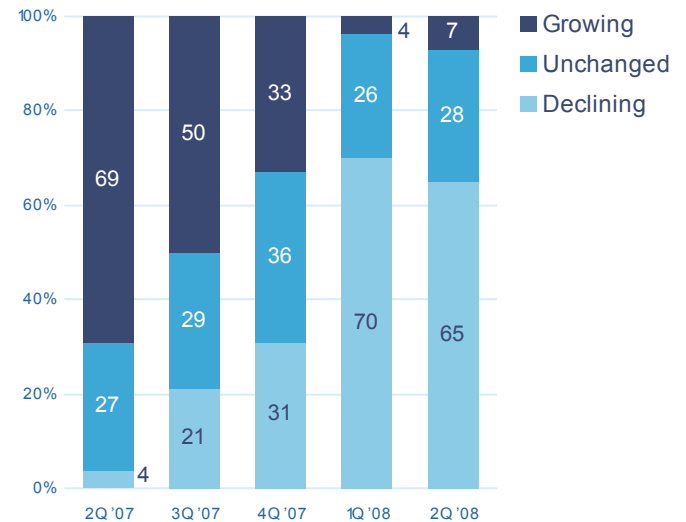
In line with the prior quarter, only 3 percent of US-based industrial manufacturing executives believe the US economy continued to grow. Most, 77 percent, believe the US economy is declining, consistent with last quarter's 75 percent.

Chart 2.1 View of the US economy, this quarter

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

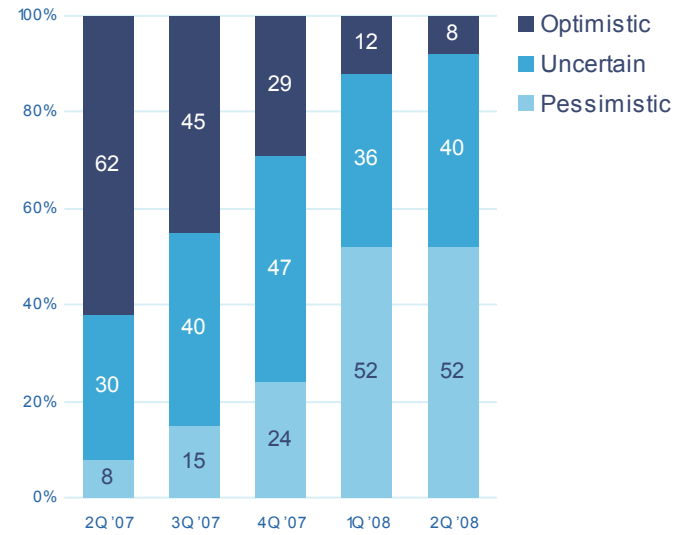
# View of the US economy, next 12 months

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

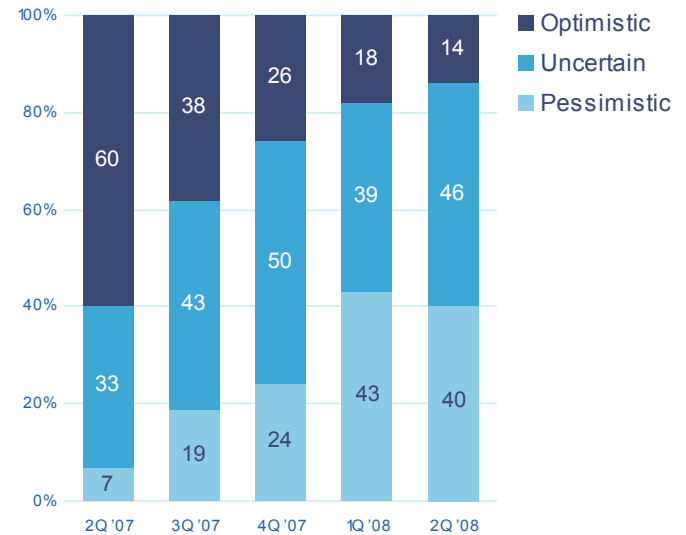
Only 8 percent of US-based industrial manufacturers expressed optimism about the 12-month outlook for the US economy, down slightly from the prior quarter's 12 percent and sharply below last year's 62 percent. The majority is pessimistic, while 40 percent are uncertain.

Chart 2.2 View of the US economy, next 12 months

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

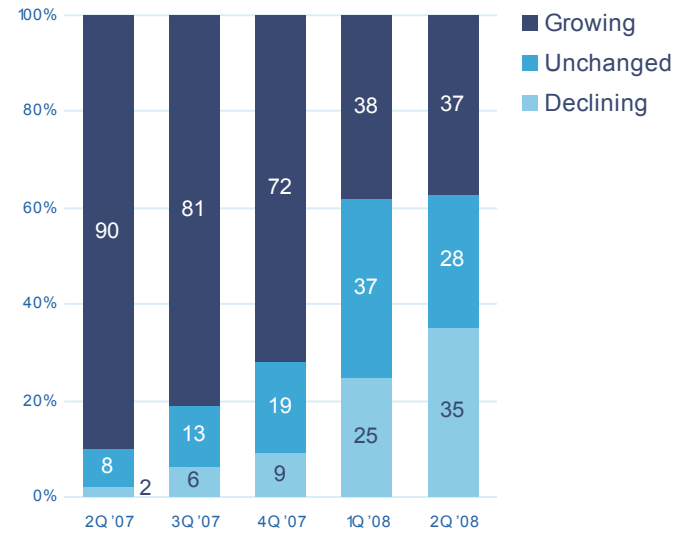
# View of the world economy, this quarter

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

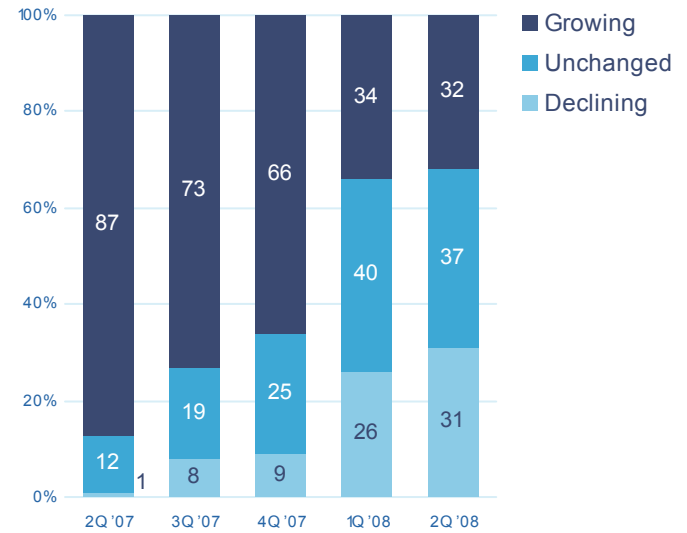
Of those marketing abroad, 37 percent view the world economy as growing, in line with the prior quarter's 38 percent, but less than half of the last year's 90 percent. For the past five quarters, industrial manufacturers have been more optimistic about the world economy than the broader consensus.

Chart 2.3 View of the world economy, this quarter

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 those marketing abroad, Industrial manufacturers n=55, All respondents, n=90

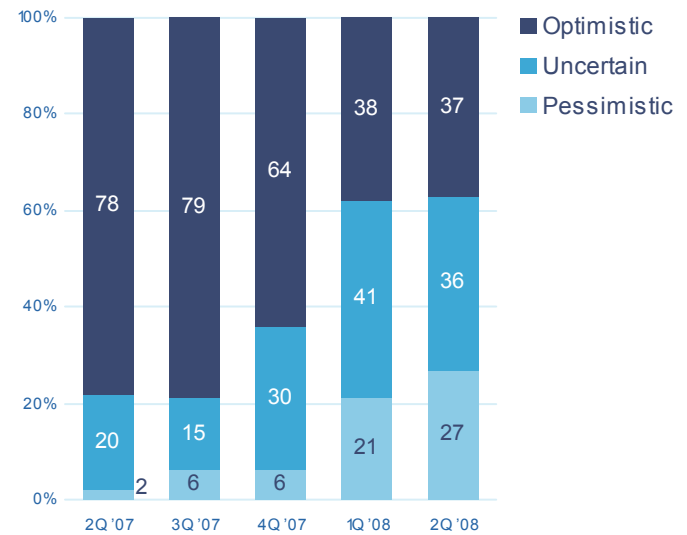
# View of the world economy, next 12 months

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

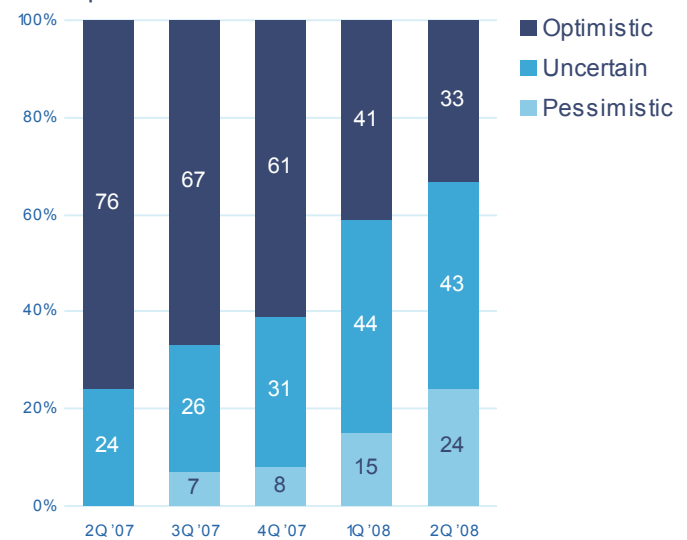
In line with last quarter, 37 percent of US-based industrial manufacturers who market abroad are optimistic about the prospects for the world economy but well below the 78 percent level of a year ago. Many expressed uncertainty (36 percent), and one-fourth of respondents (27 percent) said they are pessimistic about the prospects for the world economy over the next 12 months.

Chart 2.4 View of the world economy, next 12 months

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 those marketing abroad, Industrial manufacturers n=55, All respondents, n=90

# Company performance

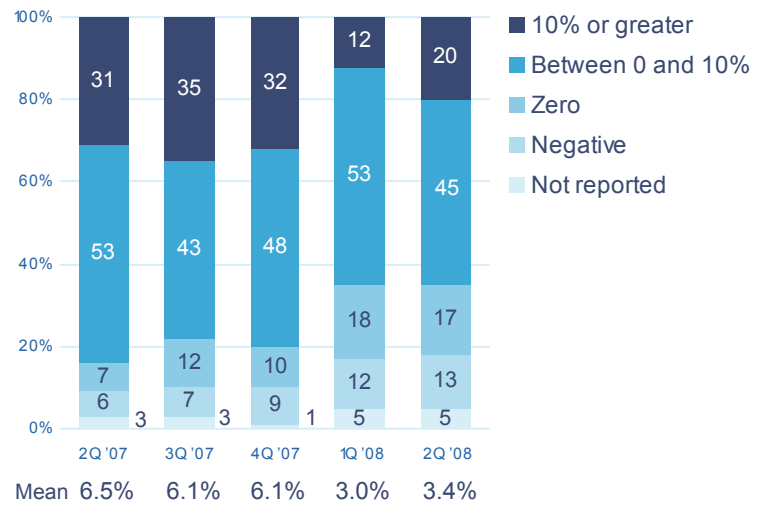
# Company revenue growth, calendar year

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

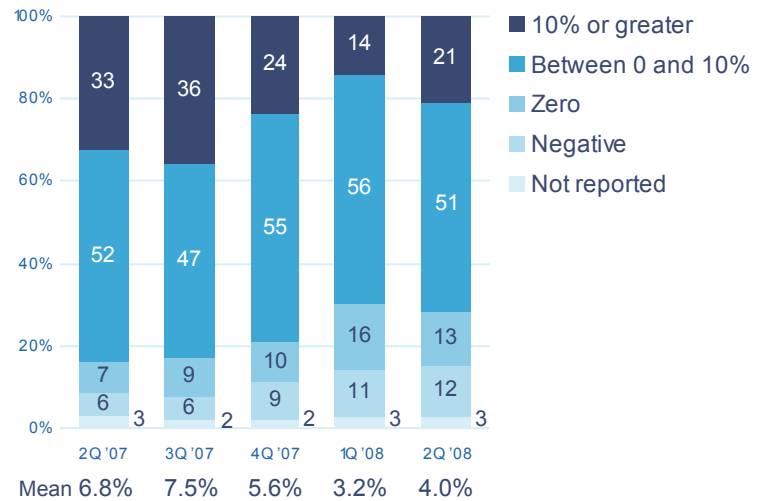
In 2Q 2008, 20 percent of US-based industrial manufacturers expected double-digit growth, and 45 percent reported single-digit growth. Overall, the composite average growth estimate rose slightly to 3.4 percent, nearly half of last year's 6.5 percent. For more information on revenue expectations, see chart 4.1, revenue expectations, next 12 months.

Chart 3.1 Company revenue growth, calendar year

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

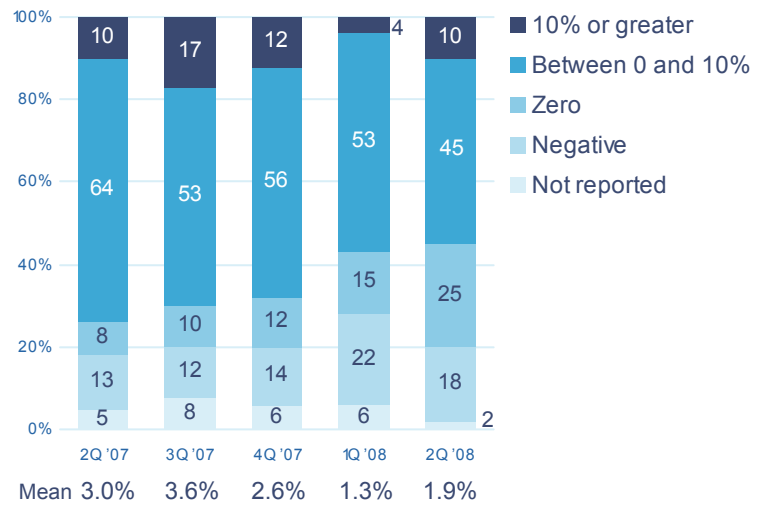
# Industry growth, calendar year

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

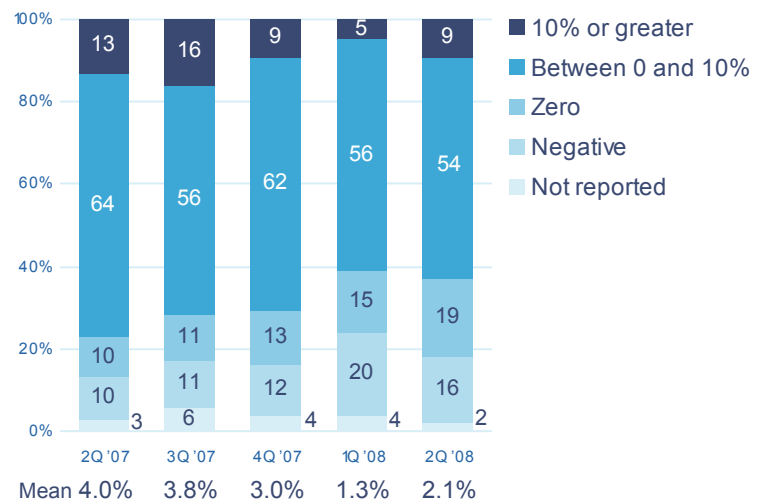
Industry growth for the calendar year is expected to average 1.9 percent, up slightly from 1.3 percent the prior quarter. Note that the industry growth estimate typically is lower than the average company growth rate. US-based industrial manufacturers anticipate an average growth rate of 3.4 percent for their companies in 2008, notably above the estimated growth rate of 1.9 percent for their industry.

Chart 3.2 Industry growth, calendar year

### Industrial manufacturers



### All respondents



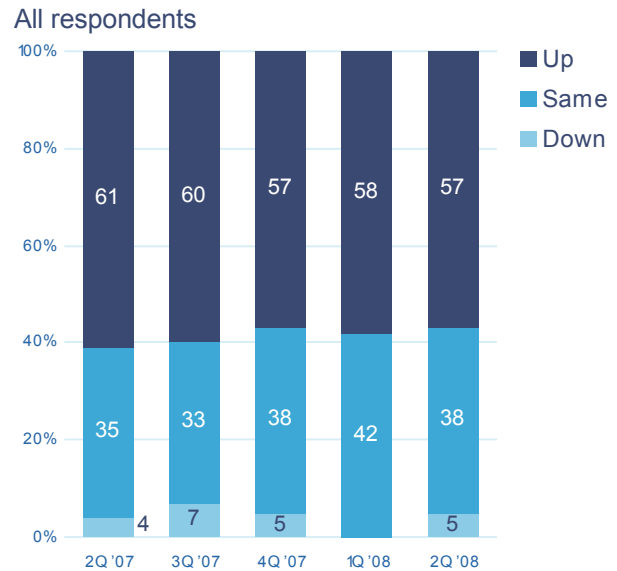
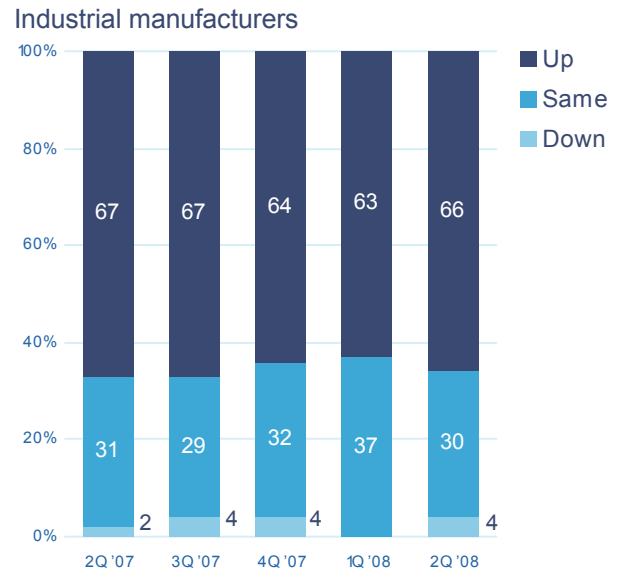
Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# International sales

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

International markets remain strong for US-based industrial manufacturers that sell abroad. Another strong performance was reported in 2Q 2008, as 66 percent of international marketers increased sales abroad and only 4 percent reported a decrease, similar to the performances in the prior four quarters.

Chart 3.3 International sales



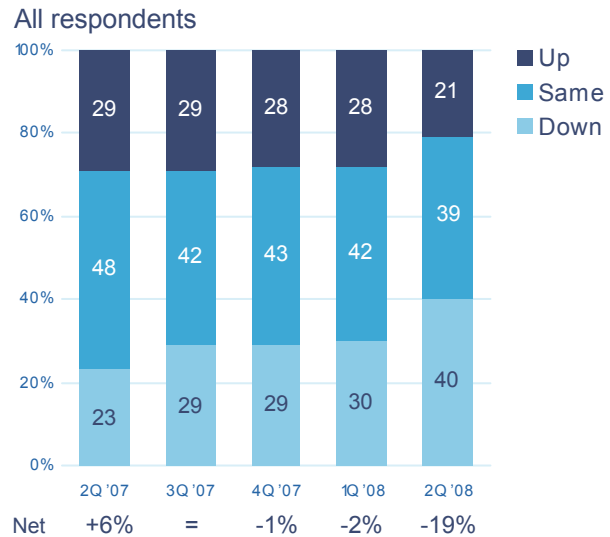
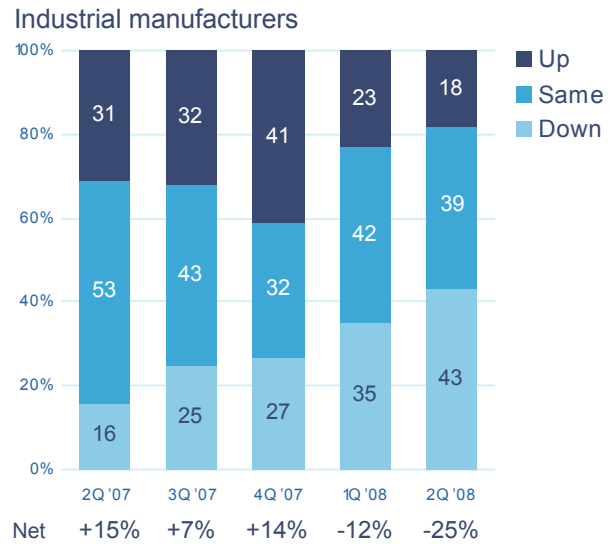
Note: In 2Q 2008 those marketing abroad, Industrial manufacturers n=55, All respondents, n=90

# Changes in gross margins

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

In 2Q 2008, gross margins were down sharply: higher for only 18 percent of US-based industrial manufacturers but lower for 43 percent, a net negative 25 percent.

Chart 3.4 Changes in gross margins



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# Changes in costs and prices

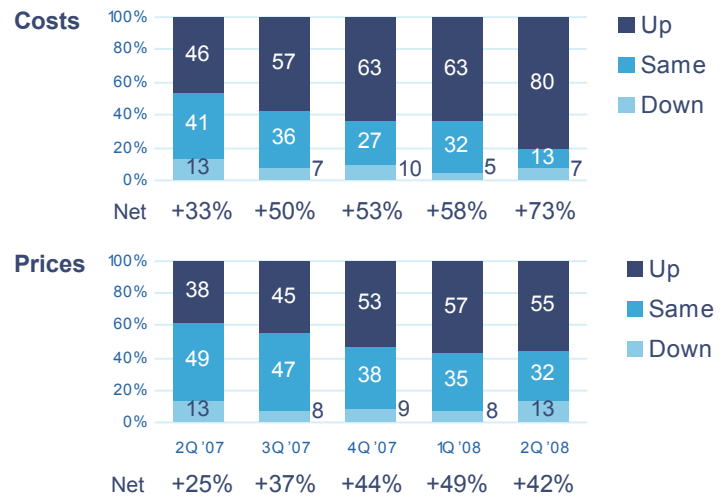
## Are costs up, down or the same compared with three months ago? Prices?

In 2Q 2008, costs climbed, increasing for 80 percent of US-based industrial manufacturers and decreasing for only 7 percent — a net of 73 percent with higher costs.

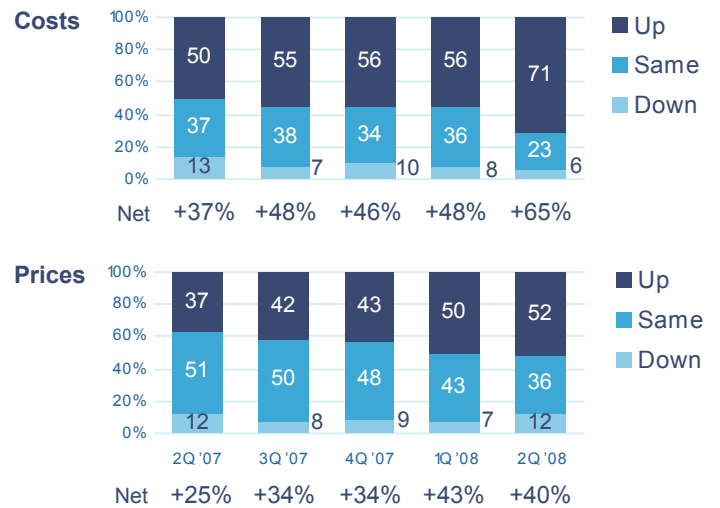
Industrial manufacturers responded to cost increases by pushing 2Q 2008 prices upward — 55 percent raised prices, and 13 percent lowered them, a net of 42 percent with higher prices.

Chart 3.5 Changes in costs and prices

### Industrial manufacturers



### All respondents



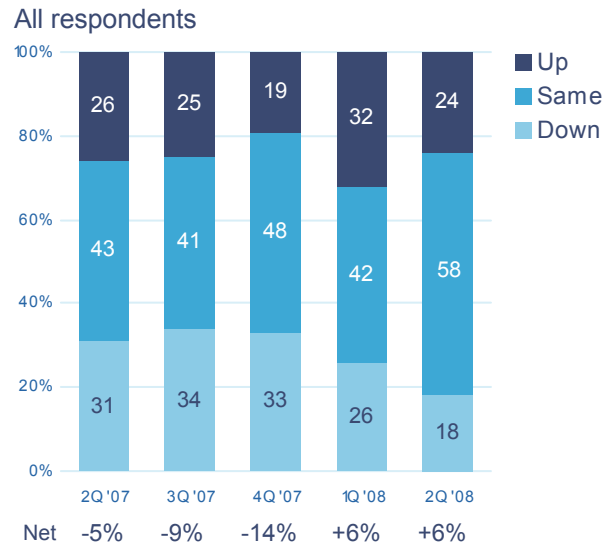
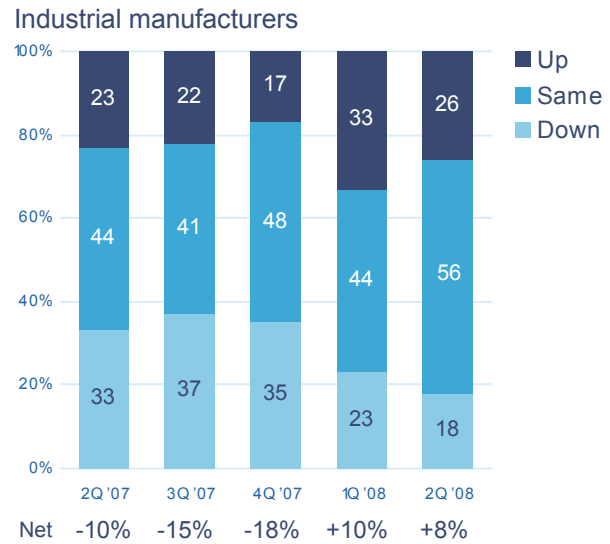
Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# Inventory movement

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

Overall, more US-based industrial manufacturers reported higher inventories (26 percent) than lower inventories (18 percent).

Chart 3.6 Inventory movement



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

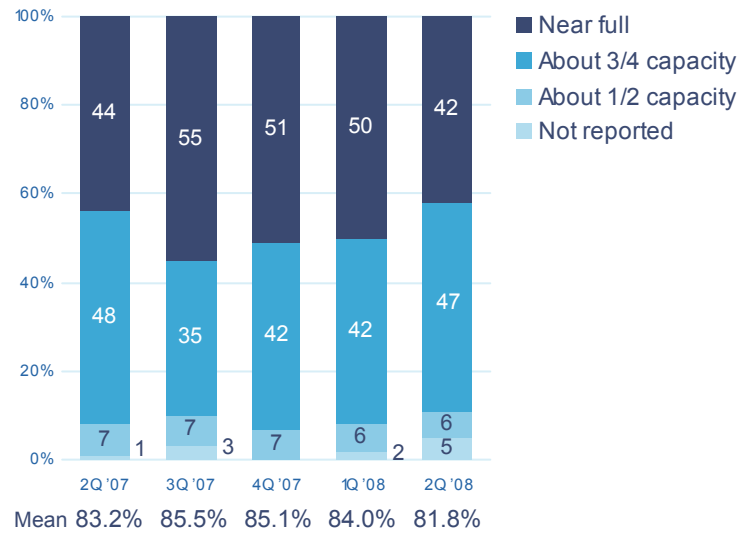
# Level of operating capacity

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

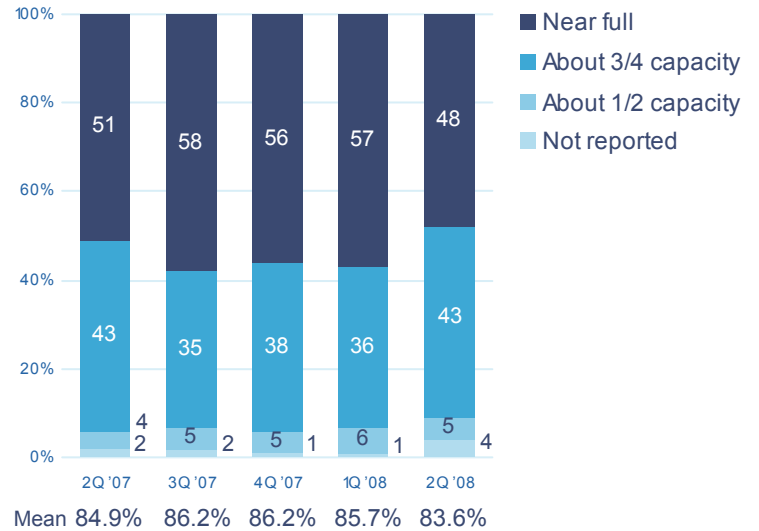
Operating capacity is an estimate of the current level of permanent staffing compared with what is needed for full-capacity output. In 2Q 2008, the average level of operating capacity for US-based industrial manufacturers was an estimated 81.8 percent — below the prior quarter and below a year ago. This quarter, 42 percent of industrial manufacturers claimed to be at or near full capacity.

Chart 3.7 Level of operating capacity

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

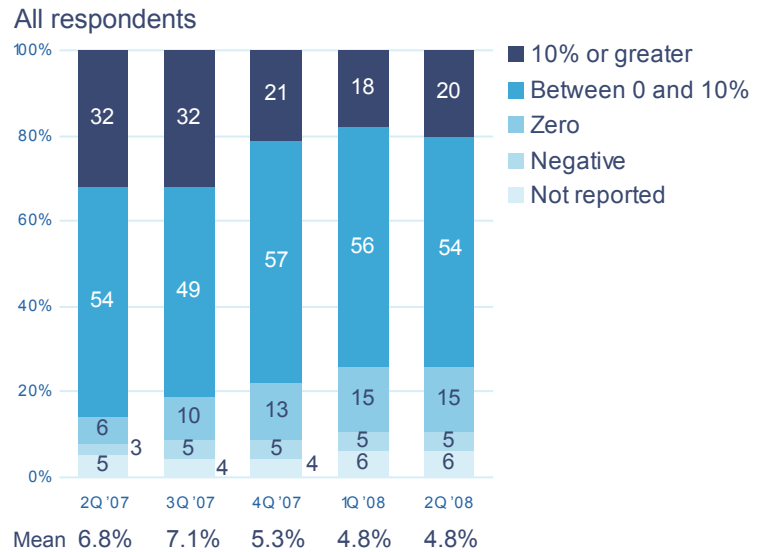
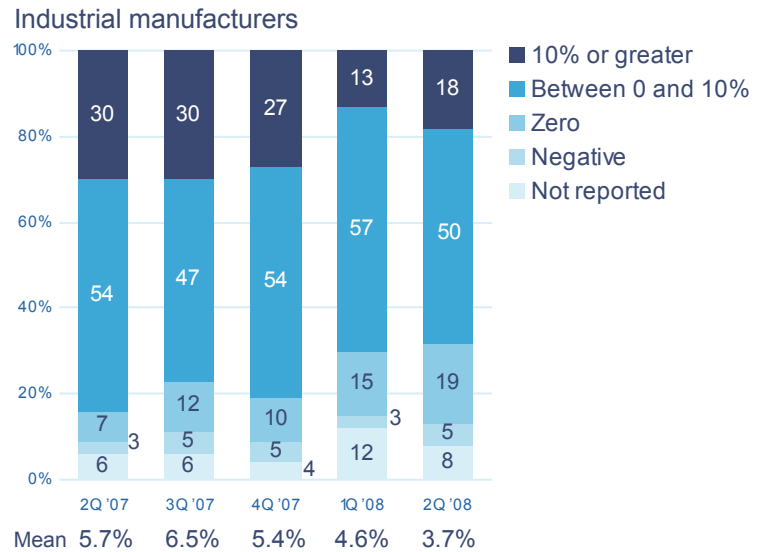
# Business outlook, next 12 months

# Revenue growth, next 12 months

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

With increasing pessimism about the US economy, US-based industrial manufacturers project lower revenue growth rates for their companies over the next 12 months. The 3.7 percent average is below the prior quarter's projected 4.6 percent, and well below the 5.7 percent projection a year ago. Over the next 12 months, 68 percent are planning for growth — 18 percent expect double-digit revenue growth and 50 percent expect single-digit growth.

Chart 4.1 Revenue growth, next 12 months



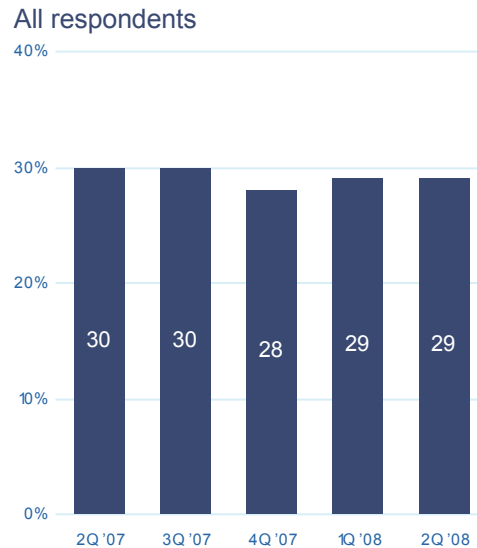
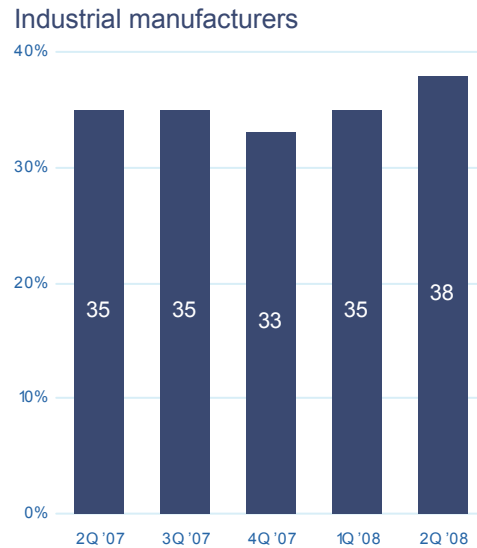
Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# 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 38 percent over the next 12 months, slightly higher than the prior quarter's and 2Q 2007. Industrial manufacturers selling abroad consistently have outpaced the broader consensus in projected revenue contributions from international sales.

Chart 4.2 International sales, next 12 months



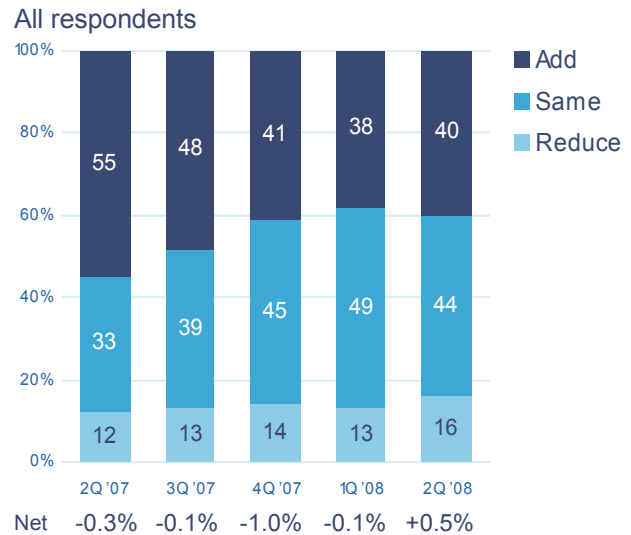
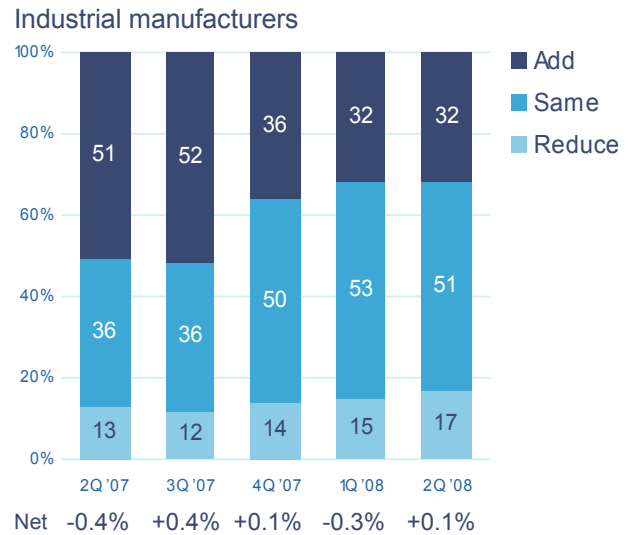
Note: In 2Q 2008 those marketing abroad, Industrial manufacturers n=55, All respondents, n=90

# Percent planning to hire

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

Similar to last quarter, 32 percent of US-based industrial manufacturers plan to add employees to their workforces over the next 12 months, but only 17 percent plan to reduce the number of full-time-equivalent employees. The net workforce projection rested flat, at plus 0.1 percent, above last quarter's minus 0.3 percent net projection and last year's minus 0.4 percent. Industrial manufacturers planning to add employees to their workforces projected a notably higher revenue growth rate over the next 12 months (8.4 percent) than those staying the same or reducing their workforces (4.0 percent).

Chart 4.3 Percent planning to hire



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

## Percent planning to hire by type of employee

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

Over the next 12 months, industrial manufacturers primarily will be looking for professionals/technicians, and, to a lesser extent, sales/marketing executives.

Chart 4.4 Percent planning to hire by type of employee

### Industrial manufacturers

	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
Planning to hire (net)	51%	52%	36%	32%	32%
• Professionals/technicians	26%	30%	26%	23%	27%
• Sales/marketing	18%	15%	12%	12%	15%
• Production workers	33%	27%	17%	13%	10%
• White collar support	30%	22%	14%	13%	10%
• Skilled labor	26%	18%	24%	23%	8%

### All respondents

	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
Planning to hire (net)	55%	48%	41%	38%	40%
• Professionals/technicians	32%	31%	27%	26%	30%
• Sales/marketing	24%	17%	14%	14%	18%
• Production workers	28%	23%	13%	13%	11%
• White collar support	28%	22%	14%	17%	15%
• Skilled labor	23%	17%	20%	18%	10%

Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

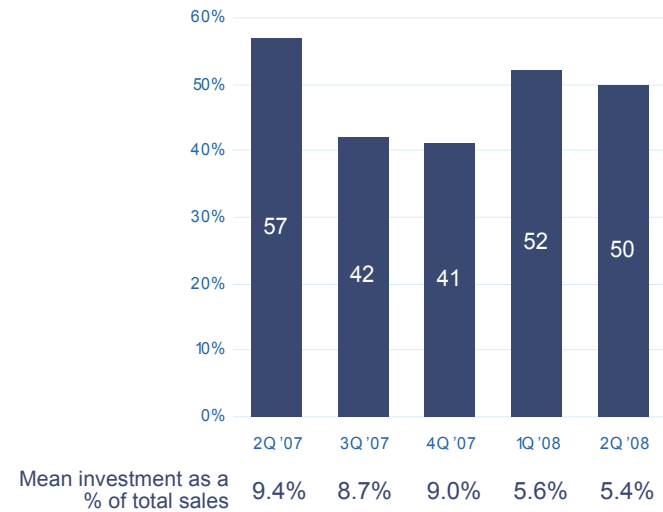
## Percent planning major new investments of capital

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?

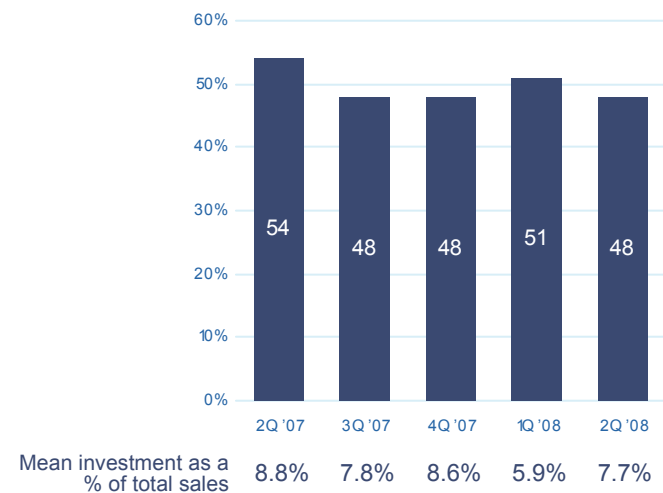
Fifty percent of US-based industrial manufacturers plan major new investments of capital during the next 12 months, similar to the prior quarter but 7 points below a year ago. The mean investment as a percentage of total sales (including an M&A component) dropped from 9.4 percent a year ago to 5.4 percent in 2Q 2008.

Chart 4.5 Percent planning major new investments of capital

### Industrial manufacturers



### All respondents



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

## 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: new product or service introductions; research and development; and information technology.

Chart 4.6 Percent planning to increase operational spending

Industrial manufacturers					
	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
Percent planning to increase spending (net)	89%	85%	83%	75%	77%
• New product or service introduction	48%	47%	43%	38%	48%
• Research and development	43%	37%	36%	35%	40%
• Information technology	48%	57%	48%	40%	38%
• Geographic expansion	36%	42%	31%	27%	35%
• Business acquisition	38%	37%	34%	33%	30%
• Facilities expansion	34%	32%	34%	25%	27%
• Internet commerce	15%	10%	9%	15%	17%
• Marketing & sales promotion	21%	25%	29%	23%	13%
• Advertising	13%	13%	15%	15%	12%
All respondents					
	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
Percent planning to increase spending (net)	87%	87%	83%	84%	78%
• New product or service introduction	49%	48%	44%	36%	48%
• Research and development	36%	30%	26%	27%	29%
• Information technology	49%	55%	49%	46%	43%
• Geographic expansion	39%	35%	31%	27%	30%
• Business acquisition	40%	43%	37%	33%	30%
• Facilities expansion	38%	37%	31%	29%	29%
• Internet commerce	24%	15%	14%	17%	18%
• Marketing & sales promotion	28%	28%	32%	22%	16%
• Advertising	22%	17%	22%	14%	12%

Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# Expected barriers to business growth

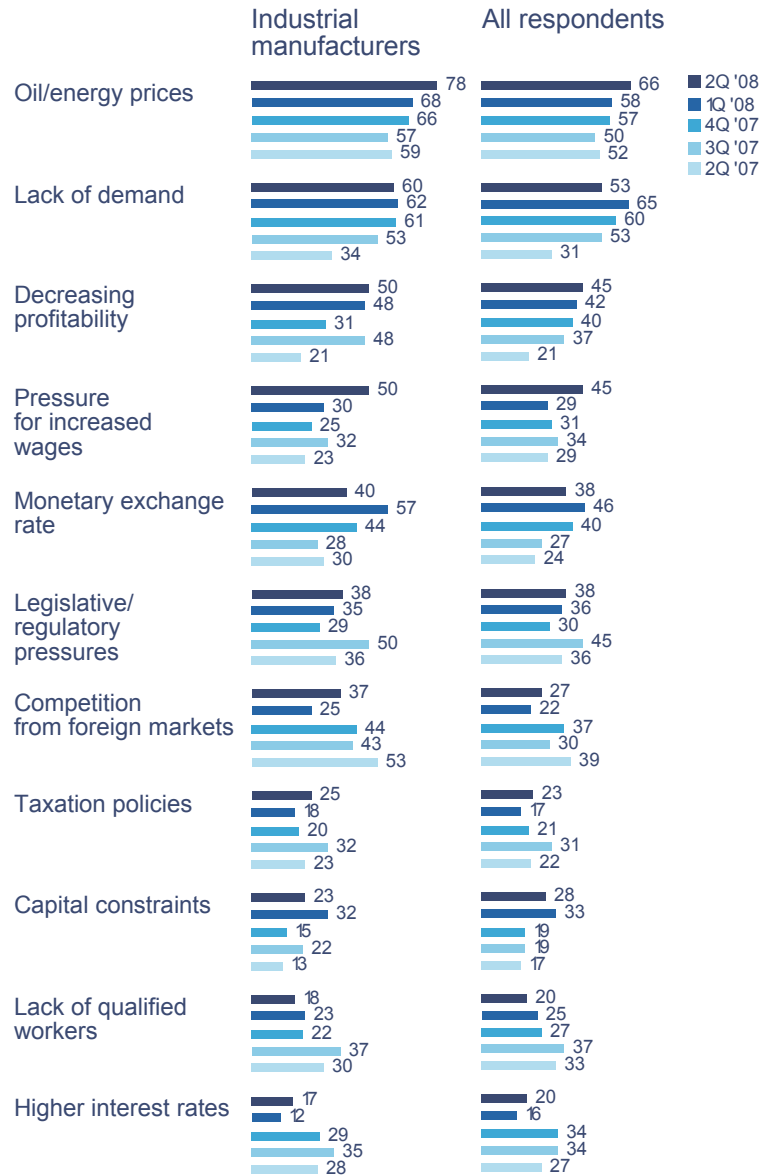
Over the next 12 months, will any of the following represent barriers to business growth?

Three potential barriers to business growth during the next 12 months — lack of demand, decreasing profitability and pressure for increased wages — joined oil/energy prices at the top of the list.

Concern about higher oil/energy prices rose 10 points to a high of 78 percent of US-based industrial manufacturers. Concern about decreasing profitability (along with pressure for increased wages) has been on the rise.

Those concerned about oil/energy costs (78 percent of total industrial manufacturers) reported higher costs and prices, lower margins in 2Q 2008 and projected notably lower revenue for the next 12 months.

Chart 4.7 Expected barriers to business growth



Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

## 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 low, at 40 percent in 2Q 2008, well below a year ago (56 percent). Thirty-three percent plan to purchase another business, 10 percent indicated they might divest parts of their businesses, and 8 percent plan equity carve-outs or spin-offs.

Other business initiatives planned include expansion to new markets abroad, new strategic alliances, new joint ventures, and development of manufacturing or distribution facilities abroad.

Chart 4.8 Plans for M&A and other business initiatives

Industrial manufacturers					
	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
New business initiatives (net)	79%	68%	66%	60%	63%
• M&A activity (net)	56%	40%	44%	37%	40%
- Purchase another business	48%	38%	36%	33%	33%
- Sale part/all own business	16%	10%	14%	7%	10%
- Equity carve-out/spin-off	8%	3%	9%	8%	8%
• Expand to new markets abroad	43%	38%	29%	30%	30%
• New joint venture	30%	33%	27%	30%	27%
• New strategic alliance	46%	32%	37%	30%	23%
• New facilities abroad	23%	27%	20%	25%	17%
• Reduce activity in markets abroad	10%	8%	14%	10%	10%
• Close/reduce facilities abroad	12%	15%	10%	10%	5%
All respondents					
	2Q '07	3Q '07	4Q '07	1Q '08	2Q '08
New business initiatives (net)	79%	68%	67%	60%	62%
• M&A activity (net)	56%	45%	43%	40%	40%
- Purchase another business	49%	43%	36%	36%	31%
- Sale part/all own business	17%	9%	14%	7%	11%
- Equity carve-out/spin-off	8%	5%	6%	9%	8%
• Expand to new markets abroad	36%	34%	29%	32%	29%
• New joint venture	26%	33%	28%	27%	29%
• New strategic alliance	45%	37%	40%	32%	23%
• New facilities abroad	18%	19%	14%	17%	12%
• Reduce activity in markets abroad	7%	7%	10%	10%	8%
• Close/reduce facilities abroad	9%	11%	8%	5%	3%

Note: In 2Q 2008 Industrial manufacturers n=60, All respondents, n=101

# Survey demographics and research methodology

## Demographics

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Who	Senior executives of US-based, industrial manufacturing organizations	
Interview dates	April 17, 2008 to July 14, 2008	
	<b>Industrial manufacturers (60)</b>	<b>All respondents (101)</b>
Average number of employees	5,334	6,188
Average business unit revenue	\$2.50 billion	\$2.25 billion
Average enterprise revenue	\$9.24 billion	\$9.63 billion
Market capitalization	\$10.53 billion	\$11.51 billion
Industry sectors	Products 100% Manufacturing 100% Trade/Distribution --- All other --- Services ---	Products 80% Manufacturing 70% Trade/Distribution 1% All other 9% Services 20%

## 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.

## Industry contacts:

Barry Misthal  
US Industrial Manufacturing Leader  
+1 267 330 2146

Jim Clayman  
Sector Analyst  
+1 636 405 1672

## 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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