

Manufacturing Barometer

**Business outlook report
July 2011**

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Quarterly highlights

Key findings:

In the second quarter of 2011, PwC 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 results from prior quarters to see how the panel's 12-month outlook has changed. Overall, own-company revenue forecasts dipped slightly, but they remain healthy. As uncertainty over the US and world economies took hold, optimism faded. Yet international sales continued to improve, and spending was up. However, plans for new hiring lagged. Concerns about growth focused chiefly on oil and energy prices, legislative and regulatory pressures, and tax policies.

- **Uncertainty chips away at optimism.** Optimism about the US economy over the next 12 months dropped 9 points to 48 percent among industrial manufacturers, while uncertainty rose 7 points to 45 percent. Only 7 percent were pessimistic. Among those selling abroad, only 38 percent expressed optimism about the world economy, reflecting a 6-point drop and matching optimism levels a year ago. The majority, 55 percent, expressed uncertainty about the world economy; only 7 percent were pessimistic.
- **Revenue projections dip.** The projected average growth rate for own-company revenue over the next 12 months pulled back from 7 percent in the prior quarter to 6.5 percent. Despite the dip, the number is strong and shows an improvement from the 6 percent reported a year ago. Looking ahead, 90 percent of panelists expect their companies to grow, with 28 percent forecasting growth in the double digits and 62 percent forecasting single-digit growth. Only 7 percent expect negative or zero growth.
- **International sales steadily improve.** Industrial products manufacturers marketing abroad expect international sales to contribute 36 percent of their total revenue over the next 12 months, up 2 points from the prior quarter. This continues an upward trend, with 50 percent reporting higher numbers, 48 percent reporting about the same, and only 2 percent reporting lower numbers.
- **Costs and prices climb.** Gross margins remained positive in second-quarter 2011, with 32 percent higher and 20 percent lower, for a net 12 percent reporting higher numbers. Costs were up for 33 percent and lower for only 8 percent, for a net 25 percent reporting increased costs. Prices followed, with 28 percent saying they were higher, and 7 percent saying they were lower, for a net 21 percent reporting increasing prices.
- **Employment outlook flat.** Although 52 percent of panelists expect positive hiring trends over the next 12 months, the net workforce composite projection dropped from plus 1.3 percent last quarter to a flat 0.3 percent. This quarter's findings broke a three-quarter upward trend in composite new hiring plans.
- **Spending trends belie uncertain outlook.** Fifty-two percent of industrial products manufacturers are planning major new investments of capital over the next 12 months, up 3 points from the prior quarter and up 19 points from a year ago. The level of spending jumped as well, from 5.4 percent of sales to 7 percent. Eighty-eight percent will increase operational spending, with 60 percent planning to introduce a new product or service, 48 percent planning to invest in information technology, and 45 percent looking at business acquisitions. Among new business initiatives, M&A activity, expansion abroad, and new joint ventures top the agendas.
- **Oil/energy prices fuel concern.** Survey respondents in the second quarter of 2011 said the biggest barrier to growth will be oil/energy prices, with 70 percent making it the top concern. The number who see legislative/regulatory pressures as a threat climbed 6 points to 60 percent, and the number looking warily at tax policies shot up 20 points from the first quarter to 53 percent. Those who see the monetary exchange rate as a possible hurdle to growth rose 9 points to 38 percent. Despite the rise in concern about several barriers, lack of demand is on the radar as a threat for only 40 percent of panelists.

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.

Special topic: Production disruption and business continuity

With growing uncertainty among panelists about the global and world economies over the next 12 months, PwC wanted to take a closer look at the effects of the earthquake and tsunami in Japan to determine whether the industrial manufacturers surveyed see it as a major contributing factor to their wary outlook. With more than 80 percent saying the natural disasters in Japan definitely or probably contributed to their uncertainty, we posed a few follow-up questions to get a clearer picture of how these catastrophic events have affected the industrial manufacturing industry.

- **Destruction spreads far and wide.** Of industrial manufacturers surveyed, 42 percent said they have been directly affected by the Japanese earthquake, tsunami, and nuclear fallout. An additional 5 percent expect to be affected over the next 12 months, bringing the total to 47 percent, or nearly half of those surveyed.
- **Degree of disruption.** Of the 47 percent of respondents who said their business has been disrupted, 11 percent said the effects are severe, and 32 percent said they were moderate. Fifty percent said the disruption will hurt production inside Japan, and the same number said their production outside of Japan will suffer. Similarly, a sales disruption in Japan was cited by 57 percent and outside of Japan by 43 percent. Additionally, 39 percent noted an overall revenue drop-off.
- **A closer look at continuity plans.** The disruptive events spurred 40 percent of panelists to reexamine their worldwide business continuity plans for their supply chains, and it led 32 percent to reexamine their continuity plans for operations at company sites near a nuclear plant or in earthquake zones.
- **Presence in Japan.** Overall, 70 percent of industrial manufacturers surveyed sell and/or manufacture in Japan, with 67 percent reporting they sell and 30 percent saying they manufacture in the country.

Key indicators for the business outlook

Chart 1.1 Key indicators for the business outlook

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

Business outlook, next 12 months among industrial manufacturers	2010			2011		Change	Page
	2Q '10	3Q '10	4Q '10	1Q '11	2Q '11	1Q – 2Q'11	
Optimistic about US economy	45%	35%	63%	57%	48%	↓	8
Optimistic about world economy	38%	38%	60%	44%	38%	↓	10
Expect positive revenue growth	73%	70%	84%	89%	90%	=	20
Average growth rate expected	6.0%	5.0%	6.6%	7.0%	6.5%	↓	20
Planning major new investments	33%	43%	44%	49%	52%	↑	24
New investments as a % of sales	7.0%	5.3%	5.6%	5.4%	7.0%	↑	24
Planning to hire	47%	42%	48%	51%	52%	=	22
New workers as a % of workforce (net)	1.8%	0.4%	1.2%	1.3%	0.3%	↓	22
Expected barriers to growth							
• Oil/energy prices	23%	32%	27%	65%	70%	↑	26
• Legislative/Regulatory pressures	63%	77%	68%	54%	60%	↑	26
• Taxation policies	57%	60%	47%	33%	53%	↑	26
• Lack of demand	50%	62%	63%	41%	40%	=	26
• Monetary exchange rate	40%	33%	37%	29%	38%	↑	26
• Competition from foreign markets	35%	43%	36%	37%	37%	=	26
• Decreasing profitability	35%	40%	29%	22%	33%	↑	26
• Pressure for increased wages	17%	15%	15%	21%	32%	↑	26
• Lack of qualified workers	10%	8%	13%	25%	17%	↓	26
• Higher interest rates	13%	13%	10%	19%	13%	↓	26
• Capital constraints	23%	20%	18%	14%	10%	↓	26

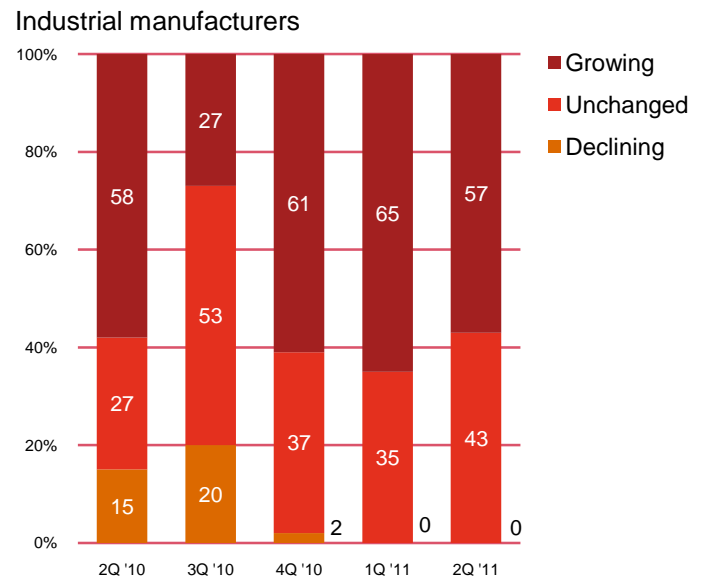
Economic views

View of the US economy, this quarter

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

In second-quarter 2011, 57 percent of US industrial manufacturers surveyed believed the US economy was growing, down 8 points from the prior quarter. None believed it was declining, and 43 percent saw no change from first-quarter 2011.

Chart 2.1 View of the US economy, this quarter



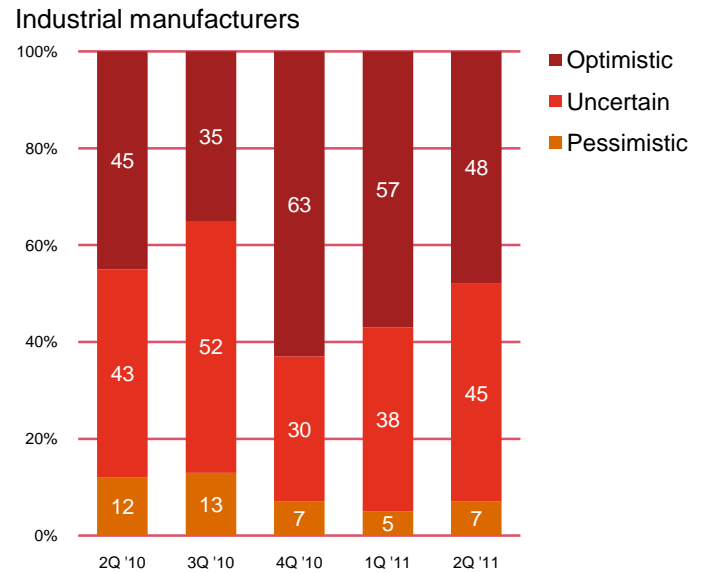
Note: In 2Q 2011 total respondents = 60

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?

Looking ahead, 48 percent of respondents expressed optimism about the 12-month outlook for the US economy, down 9 points from the prior quarter. Only 7 percent were pessimistic, and 45 percent were uncertain, absorbing most of the drop-off in optimistic outlooks.

Chart 2.2 View of the US economy, next 12 months



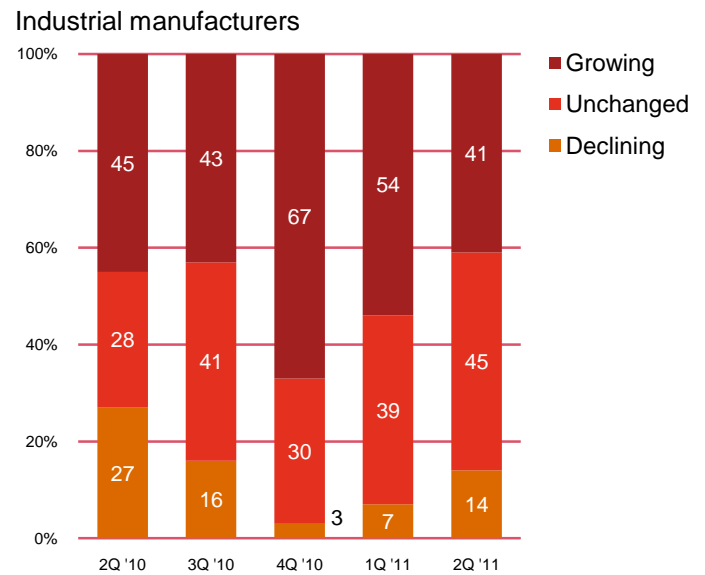
Note: In 2Q 2011 total respondents = 60

View of the world economy, this quarter

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

In second-quarter 2011, 41 percent of the panelists marketing abroad viewed the world economy as growing, down 13 points from the prior quarter. Fourteen percent believed it was declining, up 7 points from the first quarter, and 45 percent said they saw no change.

Chart 2.3 View of the world economy, this quarter



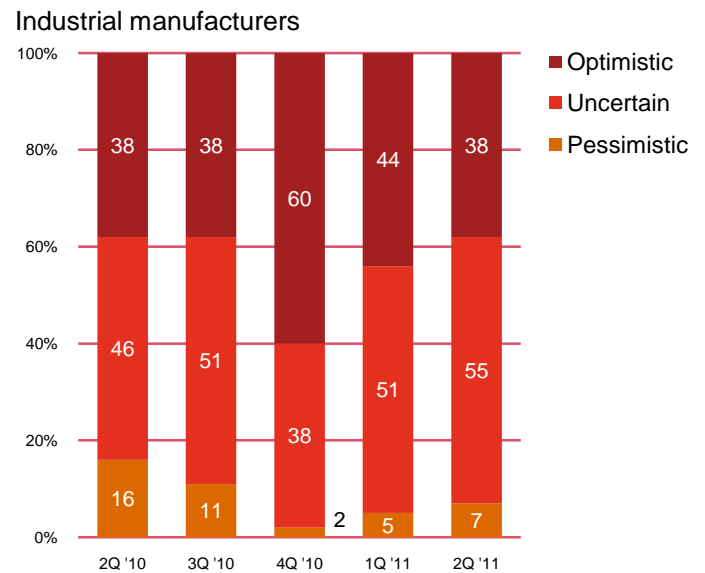
Note: In 2Q 2011 those marketing abroad = 58

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)

Thirty-eight percent of US-based industrial manufacturers who market abroad are optimistic about the prospects for the world economy over the next 12 months, down 6 points from the prior quarter. The majority – 55 percent – are uncertain, and 7 percent are pessimistic.

Chart 2.4 View of the world economy, next 12 months



Note: In 2Q 2011 those marketing abroad = 58

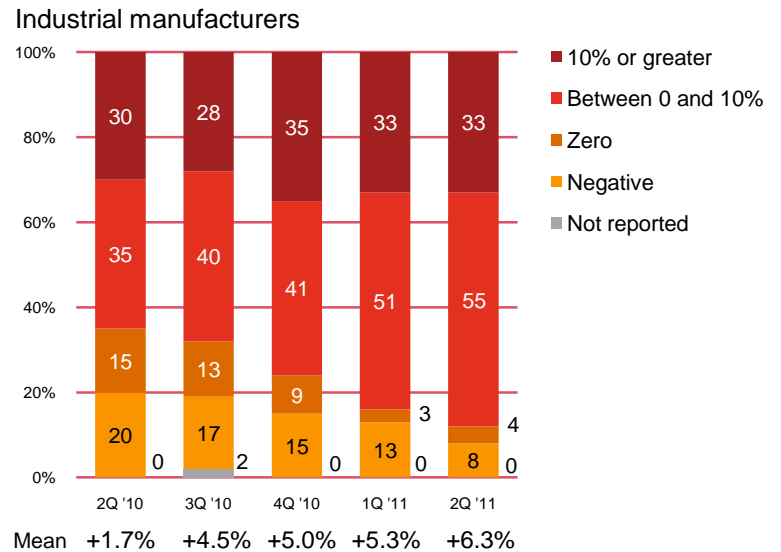
Company performance

Company revenue growth, calendar year

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

The composite average growth estimate for own-company revenue in the calendar year jumped from 5.3 percent in first-quarter 2011 to 6.3 percent in the second quarter. Eighty-eight percent of respondents said they expect positive own-company growth, with 33 percent expecting double digits and 55 percent predicting single-digit growth. Eight percent expect to continue on the negative side, while 4 percent expect zero growth.

Chart 3.1 Company revenue growth, calendar year



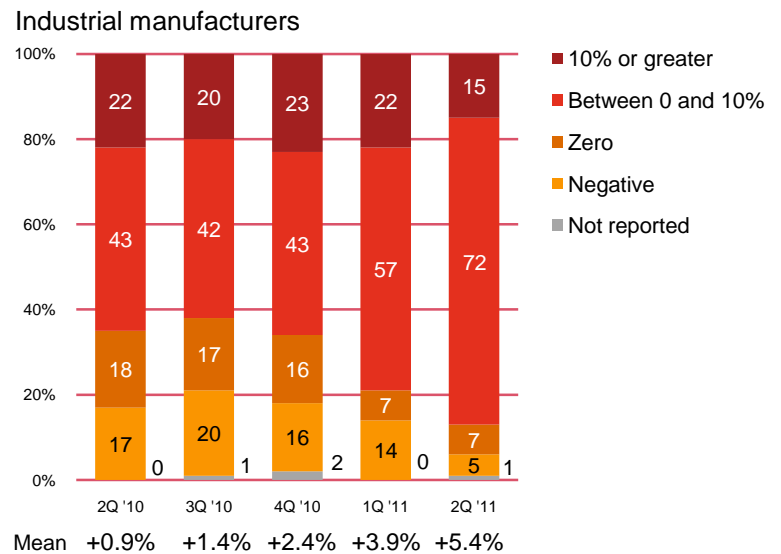
Note: In 2Q 2011 total respondents = 60

Industry growth, calendar year

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

Industry growth estimates for calendar-year 2011 spiked from 3.9 percent in the prior quarter to 5.4 percent. Eighty-seven percent of panelists expect positive industry growth for 2011, 5 percent are on the negative side, and 7 percent expect zero growth. One percent did not respond.

Chart 3.2 Industry growth, calendar year



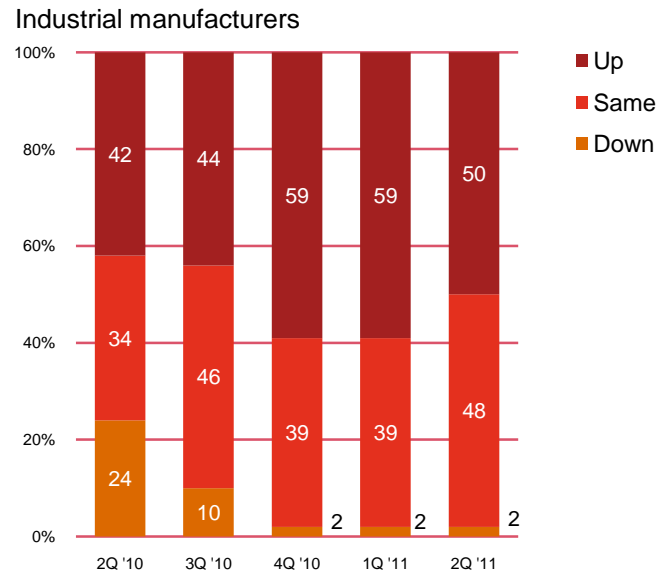
Note: In 2Q 2011 total respondents = 60

International sales

Are international sales up, down, or the same compared with three months ago? (international marketers only)

US-based industrial manufacturers that sell abroad continued to see a boost in revenue in second-quarter 2011, with 50 percent reporting an increase in sales, and only 2 percent reporting a decrease. Forty-eight percent said sales remained about the same.

Chart 3.3 International sales



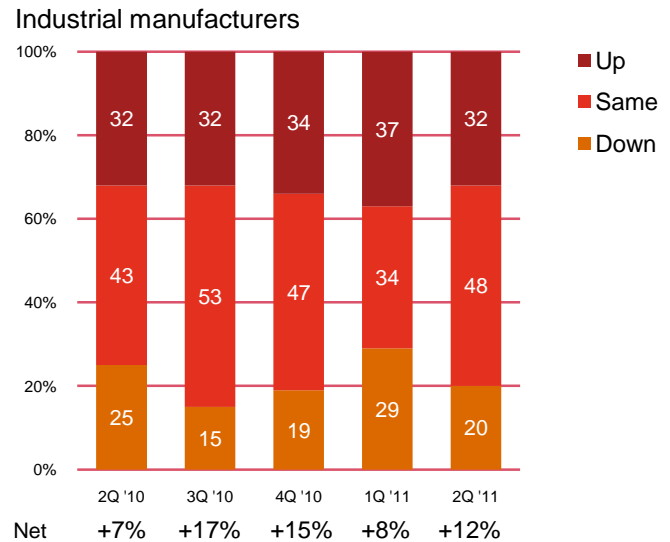
Note: In 2Q 2011 those marketing abroad = 58

Changes in gross margins

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

In second-quarter 2011, gross margins remained positive. They were higher for 32 percent of panelists and lower for 20 percent, for a net plus 12 percent, above the prior quarter's plus 8 percent.

Chart 3.4 Changes in gross margins



Note: In 2Q 2011 total respondents = 60

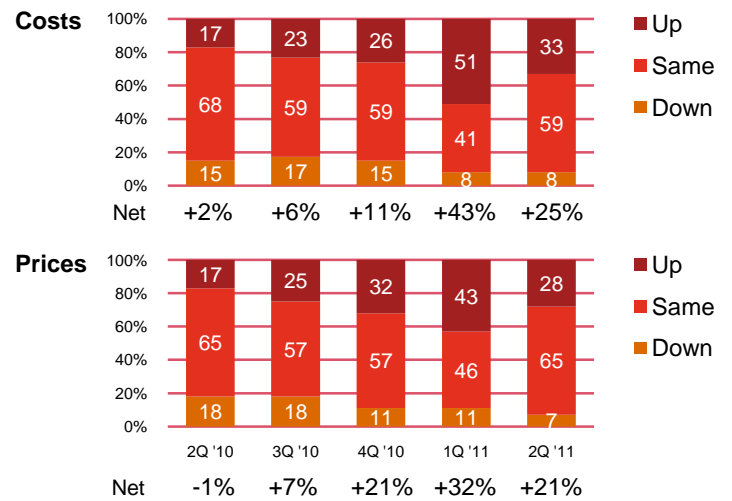
Changes in costs and prices

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

In second-quarter 2011, costs and prices were moderately higher. Thirty-three percent of US-based industrial manufacturers reported higher costs, and 8 percent reported lower costs, for a net plus 25 percent. Twenty-eight percent raised prices, and only 7 percent lowered them, for a net plus 21 percent reporting higher prices.

Chart 3.5 Changes in costs and prices

Industrial manufacturers



Note: In 2Q 2011 total respondents = 60

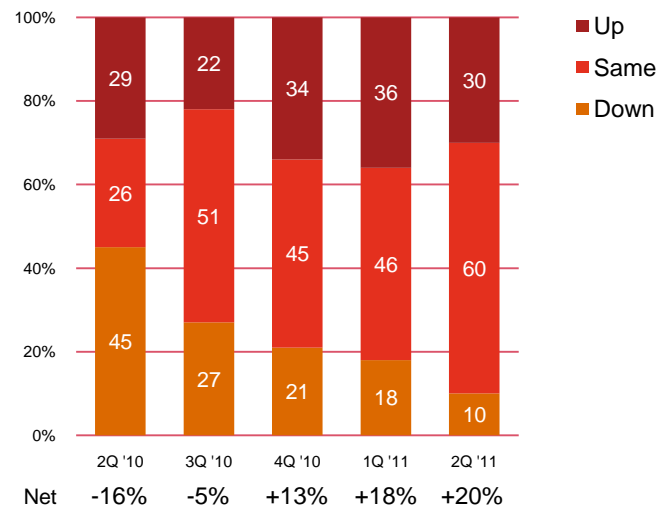
Inventory movement

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

Inventories as a percentage of sales grew for 30 percent of US-based industrial manufacturers, down 6 points on a quarter-to-quarter basis. Levels were down for 10 percent, for a net plus 20 percent, indicating some inventory replenishment in second-quarter 2011, similar to the prior quarter.

Chart 3.6 Inventory movement

Industrial manufacturers



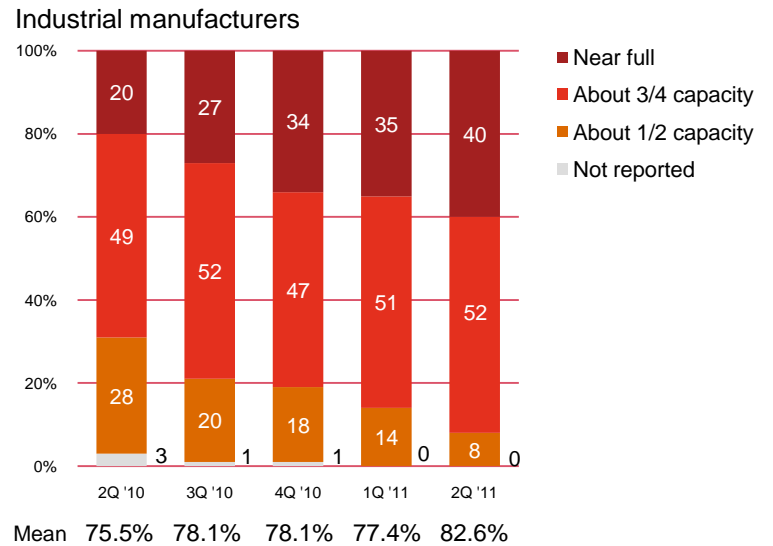
Note: In 2Q 2011 total respondents = 60

Level of operating capacity

What is your organization's current operating capacity?

Operating capacity is an estimate of the current level of permanent staffing and operations compared with what is needed for full-capacity output. In the second quarter, the mean was 82.6 percent of capacity, up from the previous quarter's 77.4 percent, with 40 percent of industrial manufacturers surveyed claiming to be at or near full capacity.

Chart 3.7 Level of operating capacity



Note: In 2Q 2011 total respondents = 60

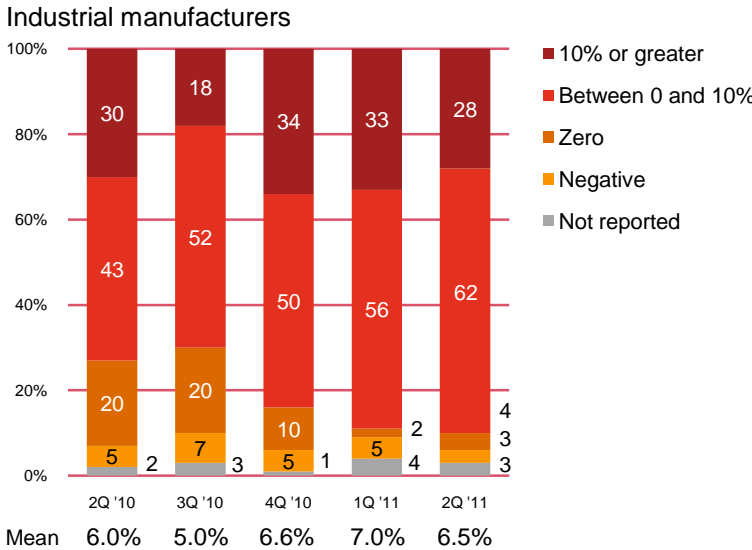
Business outlook, next 12 months

Revenue growth, next 12 months

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

The projected average revenue growth rate over the next 12 months among respondents dipped from 7 percent in the prior quarter to 6.5 percent. Ninety percent expect positive revenue growth for their own companies, with 28 percent forecasting double-digit growth and 62 percent forecasting single-digit growth. Only 3 percent forecast negative growth, 4 percent forecast zero growth, and 3 percent did not report.

Chart 4.1 Revenue growth, next 12 months



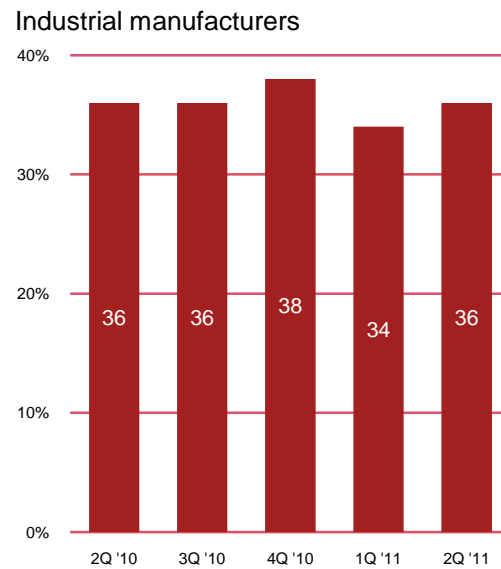
Note: In 2Q 2011 total respondents = 60

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? (international marketers only)

Of respondents selling abroad, the projected contribution of international sales to total revenue over the next 12 months rose slightly to 36 percent from the prior quarter's 34 percent.

Chart 4.2 International sales, next 12 months



Note: In 2Q 2011 those marketing abroad = 58

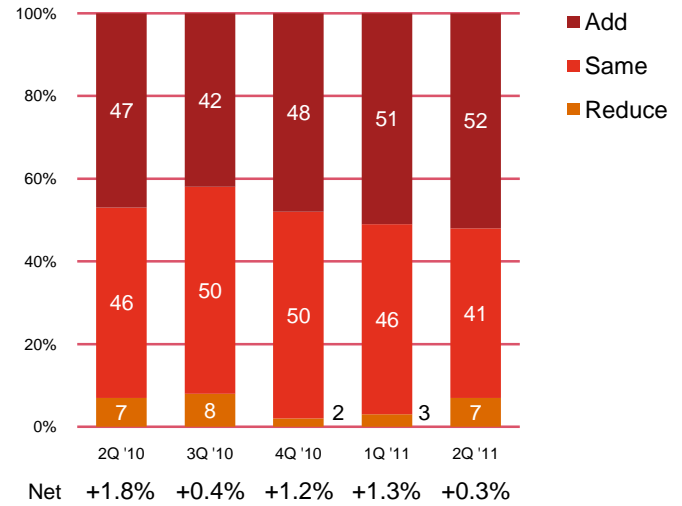
Percent planning to hire

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

Fifty-two percent of industrial manufacturers surveyed plan to add employees to their workforce over the next 12 months, up 1 point from first-quarter 2011. Only 7 percent plan to reduce the number of full-time equivalent employees, and 41 percent will stay about the same. The net workforce projection is 0.3 percent, down from last quarter's 1.3 percent, a sign of more limited hiring in this sector.

Chart 4.3 Percent planning to hire

Industrial manufacturers



Note: In 2Q 2011 total respondents = 60

Percent planning to hire by type of employee

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

Among the 52 percent of respondents planning to hire within the next 12 months, the most sought-after employees will be professionals/technicians, skilled labor, and production workers. Interest in sales/marketing workers more than doubled quarter-over-quarter, climbing 9 points to 17 percent.

Chart 4.4 Percent planning to hire by type of employee

Industrial manufacturers					
	2Q '10	3Q '10	4Q '10	1Q '11	2Q '11
Planning to hire (net)	47%	42%	48%	51%	52%
• Professionals/technicians	25%	22%	27%	35%	40%
• Skilled labor	23%	23%	23%	30%	33%
• Production workers	27%	28%	18%	27%	32%
• White collar support	17%	15%	18%	18%	22%
• Sales/marketing	15%	17%	15%	8%	17%

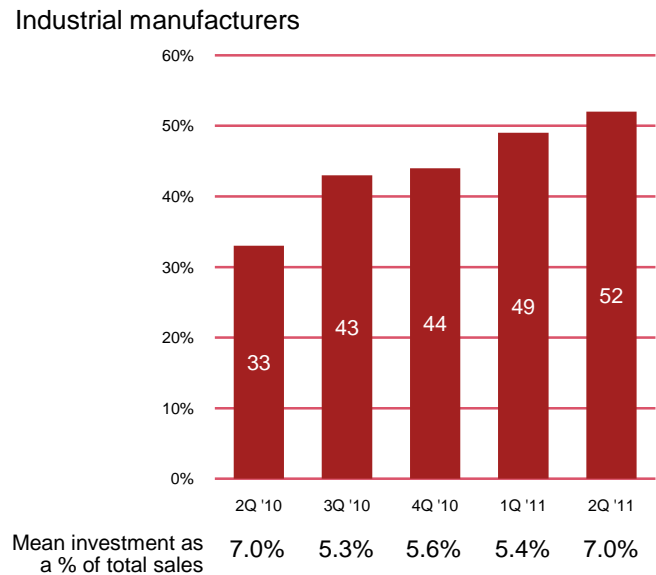
Note: In 2Q 2011 total respondents = 60

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-two percent of US industrial products manufacturers surveyed plan major new investments of capital during the next 12 months, a 3-point increase over the prior quarter. The mean investment as a percentage of total sales climbed 1.6 points from the prior quarter, to 7 percent.

Chart 4.5 Percent planning major new investments of capital



Note: In 2Q 2011 total respondents = 60

Percent planning to increase operational spending

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

Looking at the next 12 months, 88 percent of respondents plan to increase operational spending, up 2 points from last quarter. Leading increased expenditures were new product or service introductions, information technology, and business acquisitions. Plans for geographic expansion and facilities expansion also showed notable increases while R&D dropped 6 points to 40 percent.

Chart 4.6 Percent planning to increase operational spending

Industrial manufacturers					
	2Q '10	3Q '10	4Q '10	1Q '11	2Q '11
Percent planning to increase spending (net)	80%	85%	82%	86%	88%
• New product or service introduction	52%	47%	50%	49%	60%
• Information technology	22%	28%	34%	41%	48%
• Business acquisition	38%	43%	39%	41%	45%
• Geographic expansion	28%	33%	42%	33%	43%
• Research and development	32%	42%	45%	46%	40%
• Facilities expansion	23%	27%	32%	29%	38%
• Marketing & sales promotion	13%	12%	15%	22%	30%
• Advertising	5%	7%	5%	14%	20%
• Internet commerce	7%	3%	11%	5%	7%

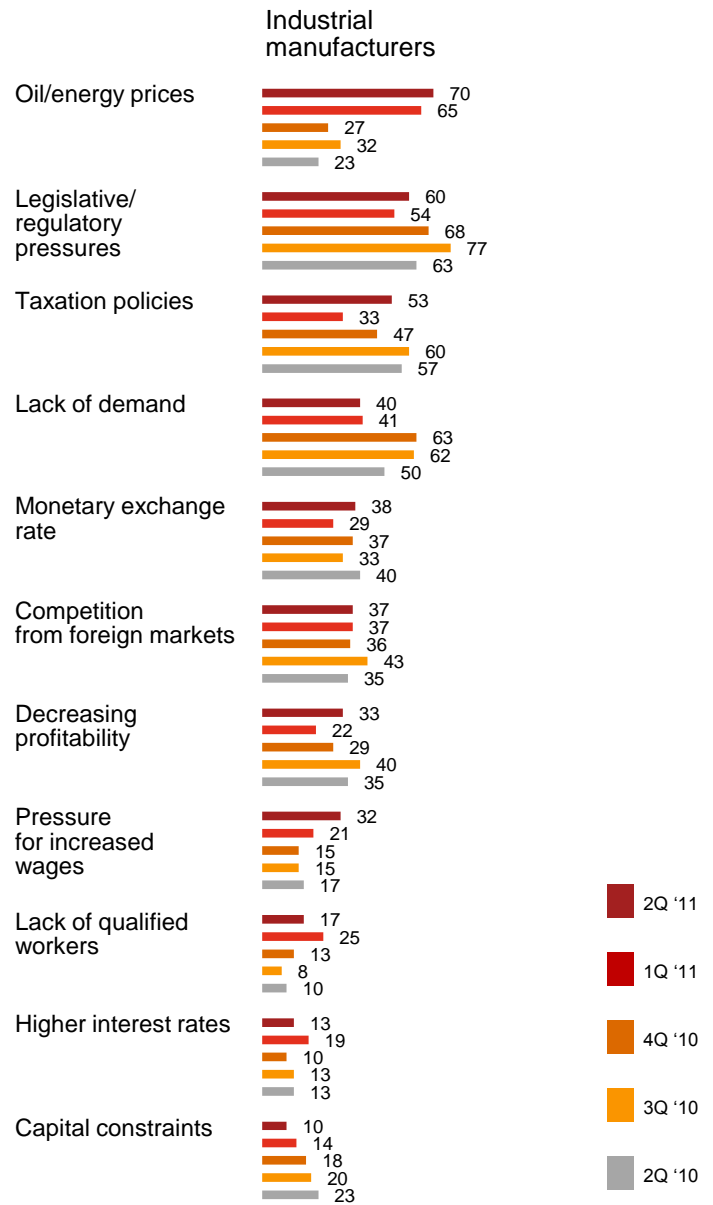
Note: In 2Q 2011 total respondents = 60

Expected barriers to business growth

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

Concern over oil/energy prices climbed 5 points to 70 percent, topping the list of barriers to growth over the next 12 months. Legislative/regulatory pressures was second, with 60 percent seeing it as a threat. Concern about taxation policies showed the biggest rebound, shooting up 20 points to 53 percent. Lack of demand was cited by 40 percent. Respondents showed increased concern about the monetary exchange rate, climbing 9 points from the prior quarter to 38 percent. Concern about decreasing profitability and pressure for increased wages jumped 11 points each to 33 percent and 32 percent, respectively.

Chart 4.7 Expected barriers to business growth



Note: In 2Q 2011 total respondents = 60

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?

The number of respondents planning M&A activity over the next 12 months climbed 4 points to 45 percent. Of that number, all are looking at purchasing another business. Plans for expansion to new markets abroad rose 12 points to 45 percent, while plans for new facilities abroad rose 13 points to 35 percent. The number planning new joint ventures rose to 38 percent, while new strategic alliances dropped 4 points to 37 percent.

Chart 4.8 Plans for M&A and other business initiatives

Industrial manufacturers	2Q '10	3Q '10	4Q '10	1Q '11	2Q '11
New business initiatives (net)	55%	65%	66%	64%	73%
• M&A activity (net)	33%	38%	39%	41%	45%
- Purchase another business	33%	37%	36%	38%	45%
- Sale part/all own business	7%	8%	10%	6%	5%
- Equity carve-out/spin-off	2%	2%	2%	2%	---
• Expand to new markets abroad	27%	30%	37%	33%	45%
• New joint venture	30%	33%	29%	32%	38%
• New strategic alliance	32%	37%	34%	41%	37%
• New facilities abroad	20%	18%	27%	22%	35%
• Reduce activity in markets abroad	7%	8%	7%	8%	10%
• Close/reduce facilities abroad	5%	7%	7%	6%	8%

Note: In 2Q 2011 total respondents = 60

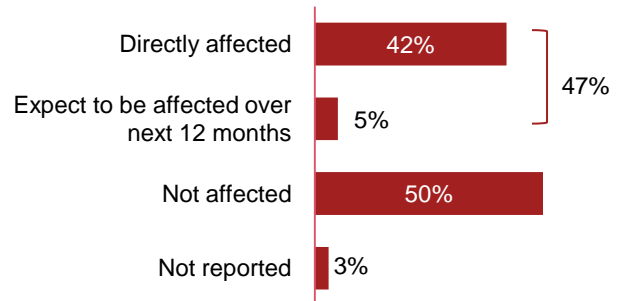
*Special topic:
Production disruption
and business continuity*

Japanese disruptions and impact on affected companies

The world's industrial production has been affected by the Japanese earthquake, tsunami, and nuclear fallout. Has your company been directly affected, or do you expect it to be affected over the next 12 months?

To date, 42 percent of industrial manufacturing companies have been directly affected by the Japanese earthquake, tsunami, and nuclear fallout, and an additional 5 percent expect to be affected over the next 12 months – a total impact on nearly half, 47 percent, of these US industrial manufacturers.

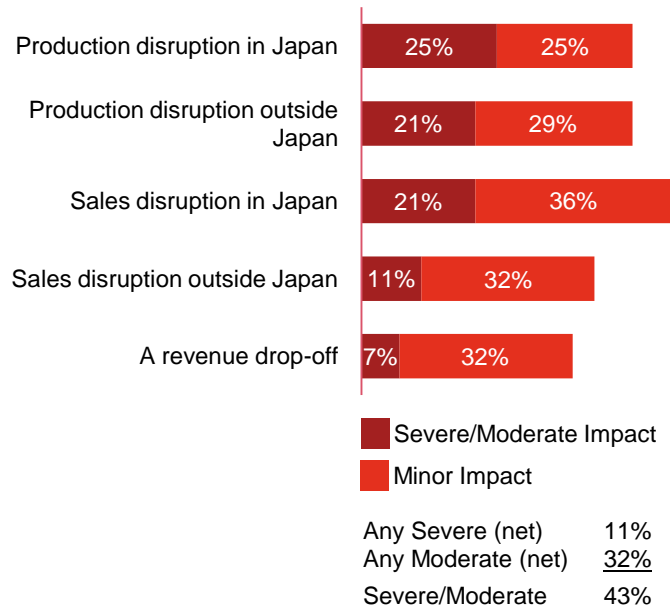
Chart 5.1 Affected or expect to be affected by Japan disruptions



In what way was your company affected or how does it expect to be affected? Is the disruption to your company likely to be severe, moderate, or minor?

Of the 47 percent of industrial manufacturers affected, 11 percent said the effects were severe, and 32 percent said they were moderate. Fifty percent cited a production disruption inside Japan, and the same number said production outside of Japan will be disrupted. A sales disruption in Japan was cited by 57 percent and outside Japan by 43 percent. And, an overall revenue drop-off was noted by 39 percent.

Chart 5.2 Impact on affected companies
(Base= 47% potentially affected)



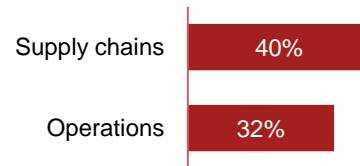
Note: In 2Q 2011 total respondents = 60

Business continuity plans and presence in Japan

Did the events in Japan lead your company to examine its own worldwide business continuity plans for supply chains? For operations?

The disruptive events in Japan led 40 percent of respondents to examine their worldwide business continuity plans for supply chains, and it spurred 32 percent to take a closer look at operations at company sites near a nuclear plant or in an earthquake zone.

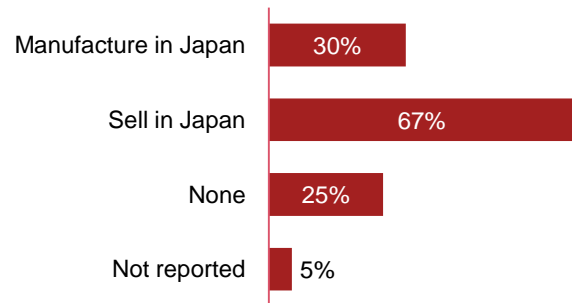
Chart 5.3 Examined worldwide business continuity plans



Does your company presently manufacture in Japan? Sell in Japan?

Overall, 70 percent of US industrial manufacturers surveyed sell and/or manufacture in Japan, with 67 percent selling and 30 percent manufacturing.

Chart 5.4 Own company presence in Japan



Note: In 2Q 2011 total respondents = 60

Survey demographics and research methodology

Demographics

Who	Senior executives of US-based, industrial manufacturing organizations
Interview dates	April 7, 2011 to July 14, 2011
	Industrial manufacturers (60)
Average number of employees	9,761
Average business unit revenue	\$3.43 billion
Average enterprise revenue	\$10.00 billion
Market capitalization	\$10.26 billion
Industry sectors	Products 100% Manufacturing 100%

Methodology

PwC's 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

Tom Haas
US Industrial Products Practice Director
+1 973 236 4302

About the research:

The Manufacturing Barometer is one in a series of quarterly business outlook surveys from PwC. 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 at www.barometersurveys.com.

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