

# Growth and Competitiveness

## Production, trade and consumption growth

### 1. Chemicals Industry Profile

### 2. International Trade

### 3. Growth and Competitiveness

#### Production, trade and consumption growth

Chemicals growth performance against total manufacturing

EU chemicals production growth by sector

International comparison of production growth

International comparison of production growth (continued)

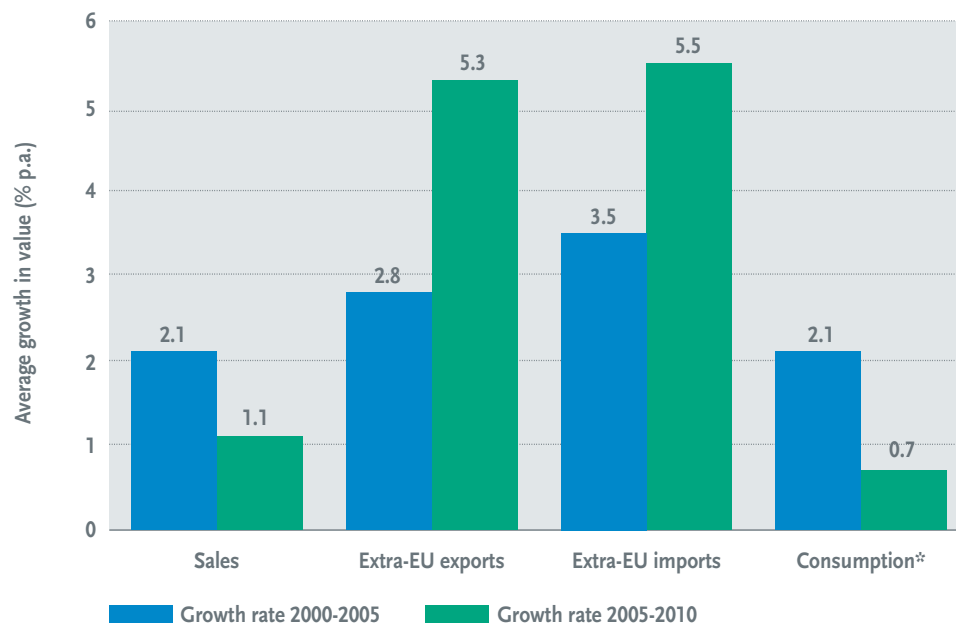
EU manufacturing industry: gross operating surplus rate (2007)

### 4. Employment

### 5. Energy

### 6. Investment and R&D

### 7. Sustainable Development



Sources: Eurostat and Cefic Chemdata International

\* Consumption = total sales - exports + imports

Unless specified, chemicals industry excludes pharmaceuticals  
Unless specified, EU refers to EU-27

### EU trade is a key driver of the EU chemicals industry

- During the period from 2005 to 2010, chemicals sales and consumption registered small growth. Chemicals consumption increased by 0.7 per cent, slightly less than the 1.1 per cent sales increase.
- Import growth during the same five-year period experienced a trend rate of 5.5 per cent, exceeding slightly the 5.3 per cent trend rate of export growth.
- In contrast to sales and consumption, trade activity grew by significant rates during the five-year period from 2005 to 2010.

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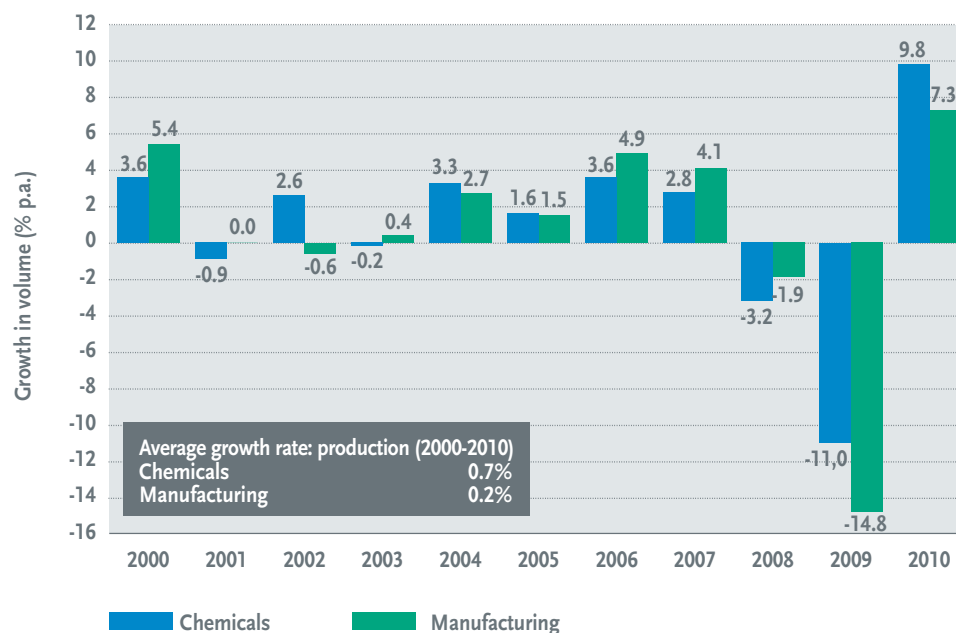
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Average growth rate: production (2000-2010)



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### Production growth in the EU chemicals industry slightly higher than manufacturing average

- In the 10-year period from 2000 to 2010, the chemicals industry had an average growth rate of 0.7 per cent, a rate slightly higher than the 0.2 per cent average growth rate for total manufacturing. These low growth rates were mainly impacted by the dramatic declines in chemicals production levels during the 2009 economic downturn as compared with pre-crisis levels.
- The EU chemicals industry was profoundly affected by the spill-over effects of the economic and financial crisis. The magnitude of the economic crisis, which started during the second half of 2008, was much more severe than expected. Many companies were certainly not anticipating such a dramatic downturn. Data covering activity through 2009 indicates that chemicals companies are experiencing strong pressure on margins due in particular to the lack of demand from customers and weak consumer spending.
- As expected, both chemicals and manufacturing have been following the recovery trend in 2010. The EU chemicals sector has enjoyed a strong 2010, posting a 9.8 per cent growth rate compared with 2009. The EU manufacturing sector also rebounded, recovering by 7.3 per cent in 2010. These figures appear spectacular and give the wrong perception that both sectors are performing well. The reality is that even with strong growth rates, production in 2010 was far below the pre-crisis level and will need an additional two years to come back to the pre-crisis level.

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## EU chemicals production growth by sector

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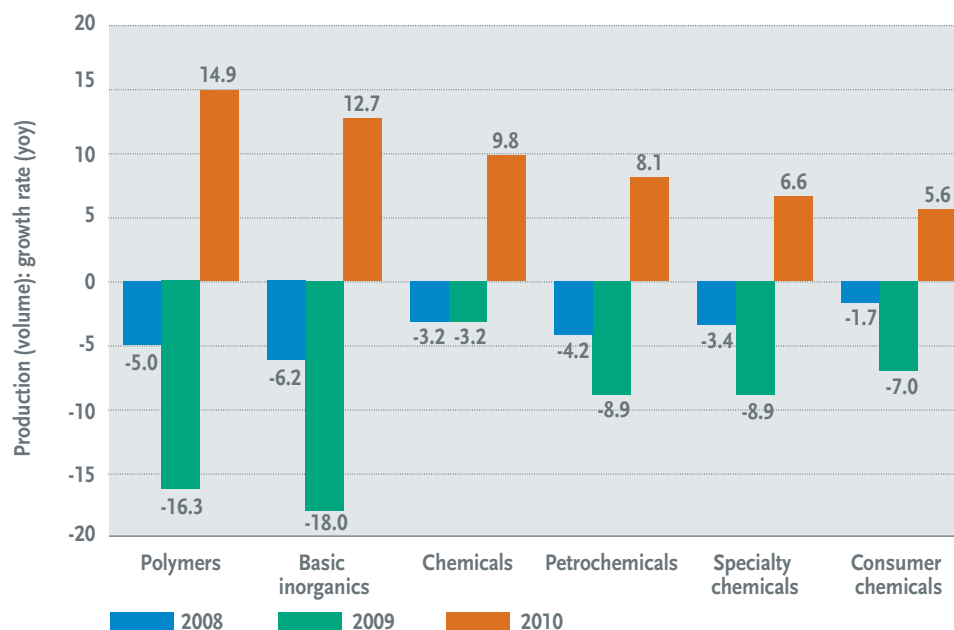
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Source: Cefic Chemdata International

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### Polymers and basic inorganics registered the fastest rebounds after steep decline in 2009

- Polymers and basic inorganics registered the fastest rebounds in 2010, but in all cases chemicals output remains well below pre-2008 levels. Petrochemicals production increased by 8.1 per cent in 2010 compared with 2009.
- Other chemicals sub-sectors less affected by the crisis – namely consumer and specialty chemicals – have been recovering at a more modest rate. Production rose by 6.6 per cent in specialty chemicals and 5.6 per cent for consumer chemicals during 2010.
- Growth in EU chemicals production in 2010 has continued more strongly than expected. However, the overall economic recovery in Europe remains fragile.
- The development of the EU chemicals industry will also depend on the effectiveness of consolidation measures taken in individual EU countries. The European chemicals industry continues to face relentless global competition. Access to raw materials and energy at globally competitive prices remains a prerequisite for a successful recovery.

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## International comparison of production growth

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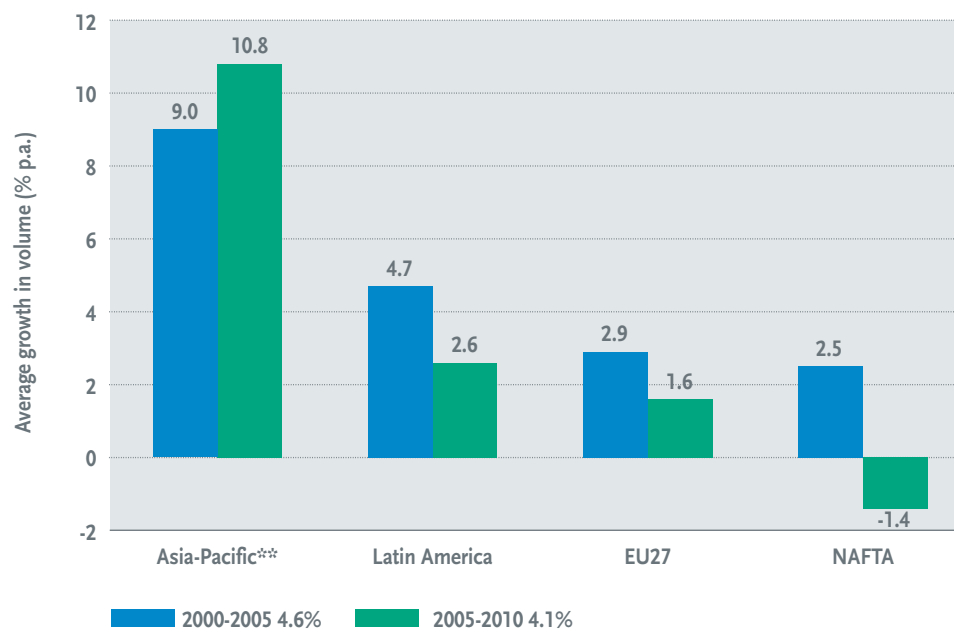
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World average growth rate: chemicals\* production



Sources: ACC and Cefic Chemdata International

\* Including pharmaceuticals

\*\* Asia-Pacific includes Japan, China, India, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand, Pakistan, Bangladesh and Australia

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### Emerging economies outpace industrial countries in chemicals production

- During the period from 2005 to 2010, the EU chemicals industry (including pharmaceuticals) showed the second most modest growth rate compared with the biggest regions in the world. The EU chemicals sector grew by 1.6 per cent, well below the world chemicals industry average growth rate of 4.1 per cent.
- During the period from 2005-2010, the chemicals industry (including pharmaceuticals) in the North American Free Trade Agreement Area (NAFTA) showed a negative growth rate on average. This is due to the spill-over effects of the crisis in the United States in 2008 and 2009.
- The Asia-Pacific region outpaced growth in EU and US markets, with average growth rates of 10.8 per cent in chemicals, including pharmaceuticals, during the past five years. Asia is heavily influenced by the extraordinary performance of the Chinese chemicals sector and a booming economic climate in China, especially its industrial sector.
- Emerging economies are outpacing industrial countries in chemicals production and have been pushing up the average growth rate of world chemicals production during the past ten years.

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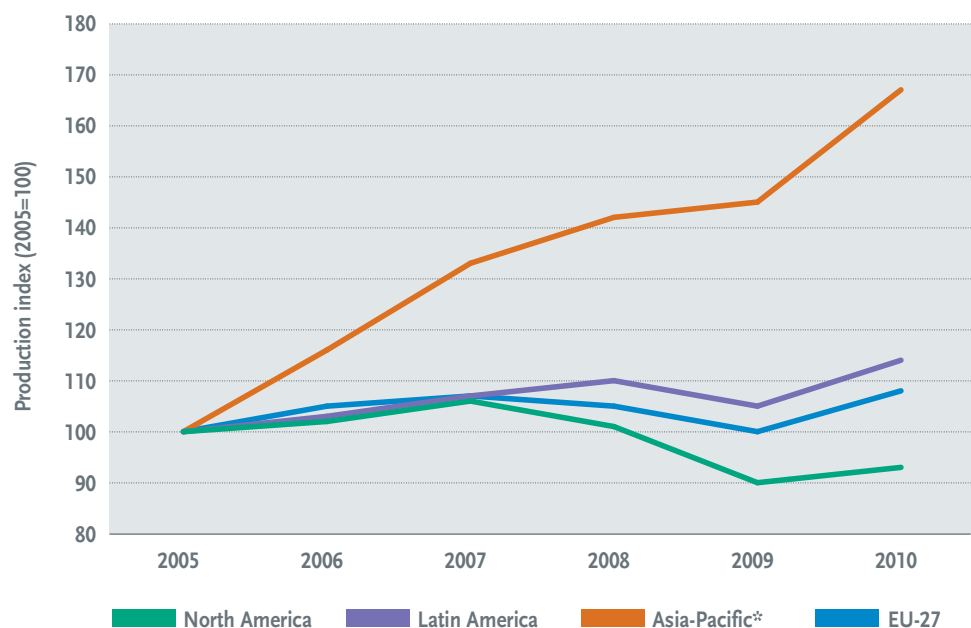
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### Emerging economies outpace industrial countries in chemicals production (continued)

- The long-term trend for chemicals production, including pharmaceuticals, shows that apart from the Asia-Pacific region, chemicals production registered a negative growth rate in 2008 and 2009 in all regions.
- Observing the growth rates of world chemicals production since 1988, data confirms that annual chemicals production has always registered positive growth rates, except in two instances. The first period was 1990, when production declined by 0.3 per cent compared with 1989. The second year was 2009 when world chemicals production declined by 4.4 per cent compared with 2008 – the largest recorded decline in world chemicals production in 23 years.
- Chemicals production recovery occurred in all regions in 2010. World chemicals production has increased by 9.9 per cent in 2010 compared to 2009. The strong recovery was led by the Asia-Pacific region, where production grew in 2010 by 15.3 per cent.

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## EU manufacturing industry: gross operating surplus rate (2007)

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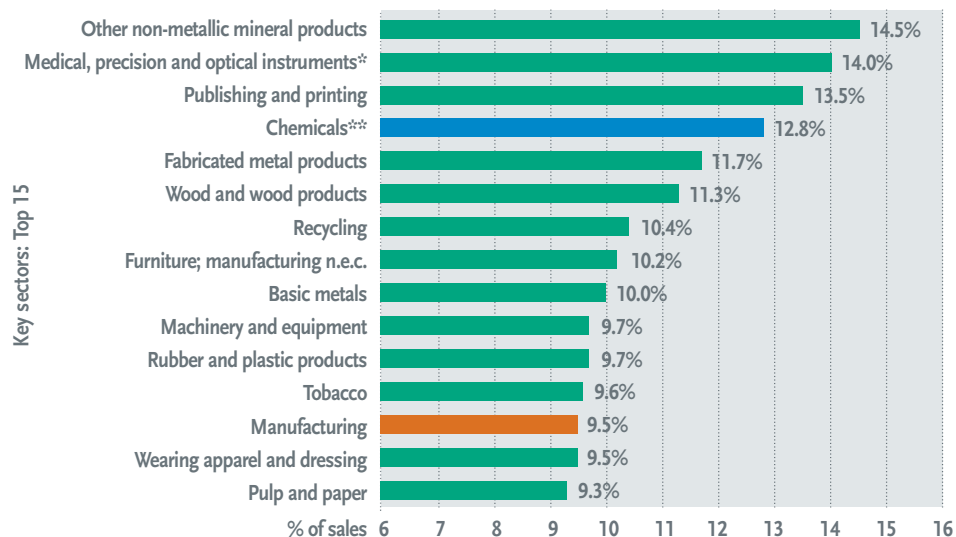
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Gross operating surplus rate in the EU manufacturing sector (2007)



Sources: Eurostat and Cefic Analysis

\* Estimated data

\*\* Including pharmaceuticals

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### EU chemicals industry Gross Operating Surplus (GOS) far higher than overall manufacturing sector average

- The Gross Operating Surplus, or GOS, is a proxy of profitability. Data for 2007 confirm that the chemicals industry, including pharmaceuticals, contributed 13.8 per cent to the EU manufacturing GOS in absolute figures.
- The chart above shows that GOS intensity – calculated as the ratio of GOS to sales – in the EU chemicals industry, including pharmaceuticals, is the fourth highest among all EU manufacturing sectors. The chemicals sector follows non-metallic mineral products, medical & optical instruments and publishing & printing.
- GOS intensity in the EU chemicals industry, which includes pharmaceuticals, was 1.34 times the level of the overall EU manufacturing sector average. The coke, refined petroleum products and nuclear fuel subsector had a GOS of 3.8 per cent in 2007 – the weakest GOS intensity in the EU manufacturing sector.