



2008 was a poor year for the Finnish chemical industry. Despite some hints of slackening activity, nothing prepared the industry for the sudden death of demand at the end of the year. In the spring of 2009, the situation improved only slightly.

The sudden death of demand took the industry by surprise.

SUDDEN DEATH of Demand

Pasi Ahde

As demand collapsed only very late in 2008, yearly figures describing the Finnish chemical industry suggest no big drama. Unfortunately, this will probably change when 2009 figures become available.

According to Manufacturing Statistics by Statistics Finland, the gross output of the chemical industry in 2008 was €19.9 billion, value added €3.4 billion and the number of people employed 35.8 thousand.

Relative to Finnish manufacturing as a whole, the chemical industry produced 15.5% of the gross output, created 11.0% of the value added, and employed 9.5% of the work force.

Measured by gross value of production and work force numbers, the volume of operations as a percentage of total manufacturing increased, but it remained unchanged when measured by value added.

In 2008, the gross value of production was boosted by expensive oil, as prices of oil products and some basic chemicals followed the price of crude oil. Considered

together with the increasing number of personnel, the poor development of value added probably means that the profitability of the chemical industry has deteriorated. However, there is no more detailed information available, as the data from the yearly profitability study of the Chemical Industry Federation of Finland is not available.

Measured in terms of gross output, production of petroleum and coal products (primarily petroleum refining) strengthened its position as the largest sub-sector of the Finnish chemical industry, followed by production of basic chemicals.

In value added terms, the largest sub-sector was production of basic chemicals, followed by plastic products and medical products. The largest employer is the plastic products sub-sector, while basic chemicals comes second.

Production decreased

Measured by the value added data of the Finnish National Accounts, the

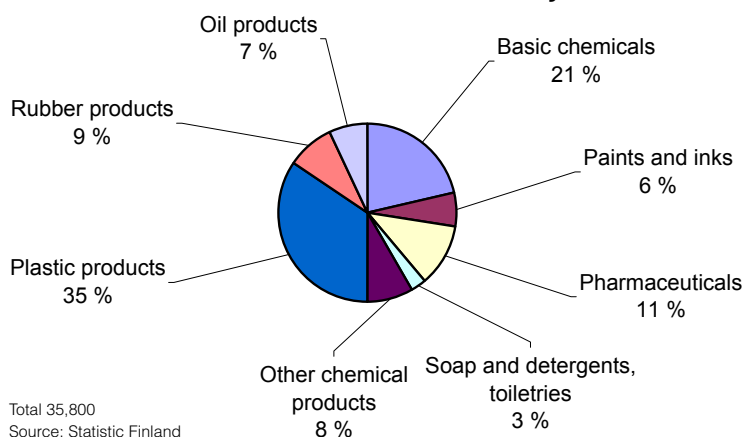
production volume of the chemical industry was 8.4% lower than in 2007. Different statistics give a slightly different picture of this development. Measured as gross output at constant prices, production increased by 1.3%.

During recent changes in statistical methods, the quality of the Finnish value added statistics was compromised. In the case of the chemical industry, gross output at constant prices is a more reliable indicator of production growth, indicating that the chemical industry grew more or less on par with the GDP.

According to the Finnish National Accounts, there were some differences in growth rates between the main sectors of the chemical industry. Measured by gross output at constant prices, the 1.3% production growth is mostly due to rubber and plastic products, where the growth was 4.9%.

In oil refining and basic chemicals and chemical products, the growth figures were barely positive. Gross output at constant prices increased by 0.3% and 0.5%, respectively.

Personnel in the Finnish chemical industry in 2008



Employment increased

According to Manufacturing Statistics by Statistics Finland, the number of persons employed in the chemical industry increased by more than 300, or about 1%, totalling 35,791 persons in 2008. The increase mainly occurred in oil refining.

Unfortunately, at least part of the increase was based on an overly optimistic picture of the future development of the demand for chemical industry products. Layoffs during the first eight months of 2009 have more than offset the increases in 2008.

New investments by the chemical industry in plants and equipment was €471 million, down from €1,258 million in 2007. This great decline was mostly due to smaller investments in oil refining, but investment decreased in other sectors, too. However, the decline does not yet reflect the recent recession but was only a return to normal levels after a few years of above-average investment activity. Consequences of the recession will be seen in 2009 investment statistics.

Due to rising oil and energy prices, the price increase for chemical industry products was fast, especially in oil products and basic chemicals. Prices of rubber and plastic products increased only 2.1%. This was less than general inflation, which was 4.1%.

Growth in value of exports

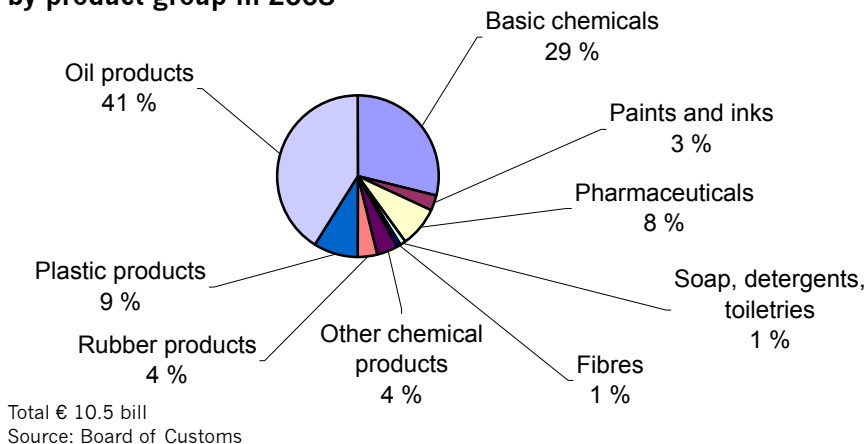
According to the Finnish Board of Customs, the value of exports of chemical industry products increased by 14.1%, totalling €10.5 billion. The growth was mostly due to higher prices for oil products. The value of exports of chemicals and chemical products increased too, but exports of rubber and plastic products declined.

Finland's neighbours Sweden and Russia are the most important destinations for the exports of the chemical industry. Exports to the USA also surpassed the limit of one billion euros. Countries around the Baltic Sea seem to be strengthening their position as targets of exports, and both Poland and Germany are now among the most important export countries.

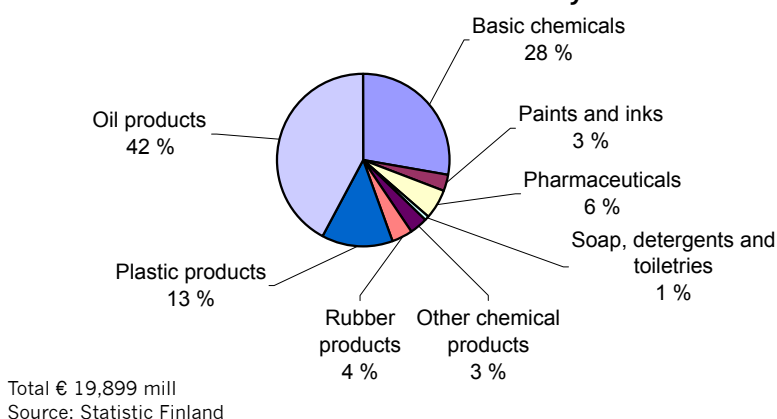
However, the exports started to decline rapidly after summer 2008. The trough was reached in January 2009, when the value of exports was only half of the peak value reached the previous summer. □

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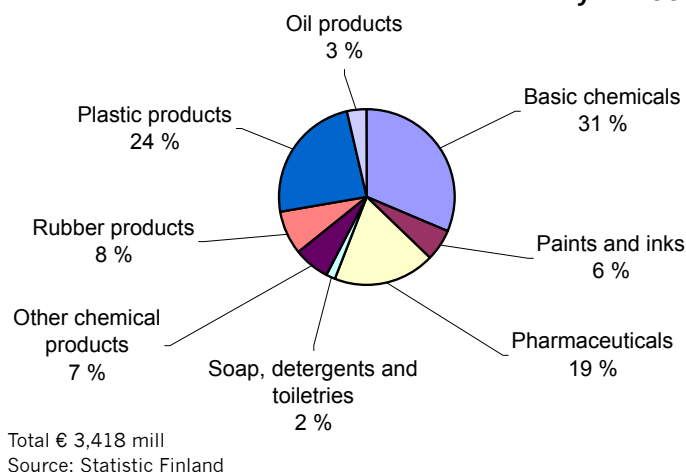
Exports of the Finnish chemical industry by product group in 2008



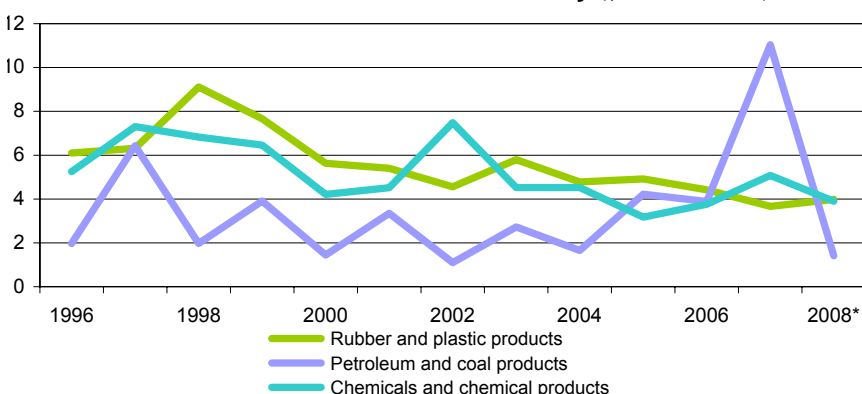
Gross value of the Finnish chemical industry in 2008



Value added of the Finnish chemical industry in 2008



Investment ratio in Finnish chemical industry (% of turnover)

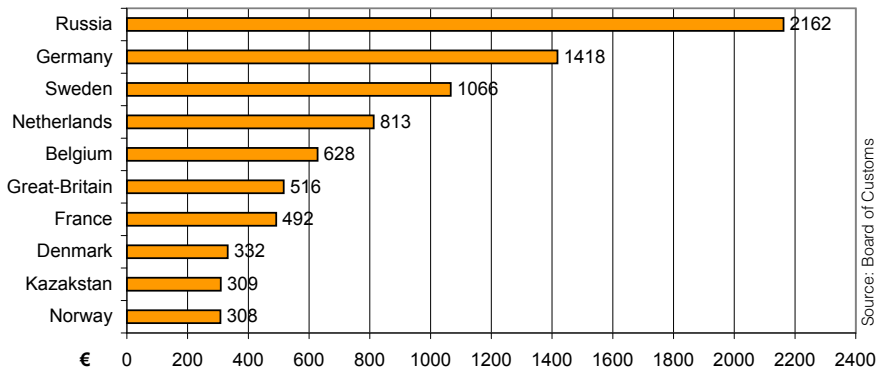




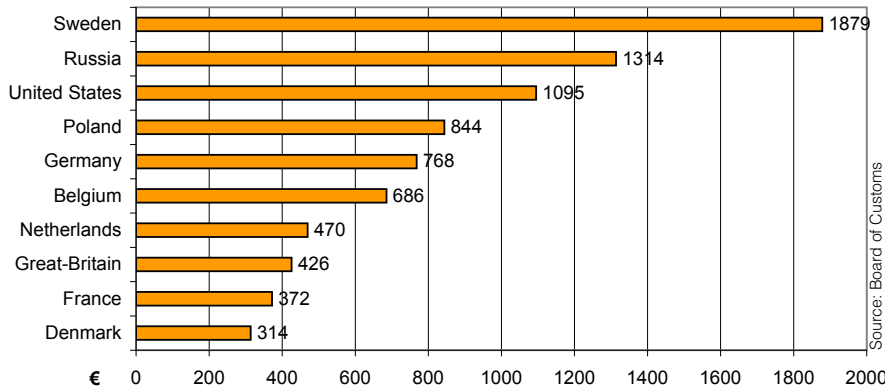
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Finnish imports of chemical products in 2008, mill €

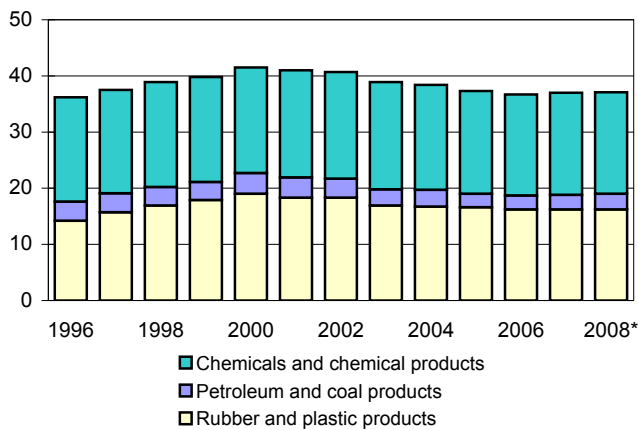
The most important source countries



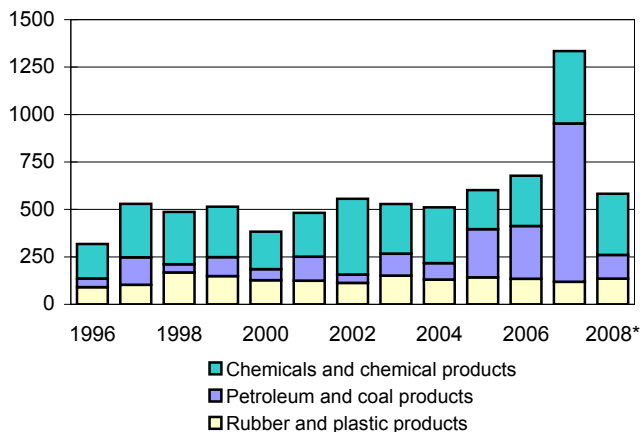
The biggest export countries of Finnish chemical industry by value in 2008, mill €



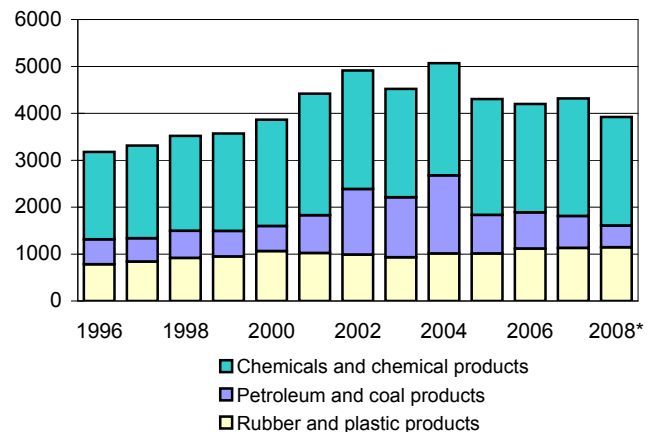
Employment in Finnish chemical industry (1000 persons)



Fixed investment of Finnish chemical industry (mill. €, in 2008 prices)



Value added in Finnish chemical industry (mill. €, in 2008 prices)



Coping with the Recession

Economists have been accused of not being able to forecast the downturn of 2008, which is not completely justified. For example, my article last year ran under the headline *Changes in the Air for 2008*. It must be confessed, though, that the analysis fell far short of predicting the sudden death of demand at the end of the year.

According to the Volume Index of Industrial Production by Statistics Finland, the production of the chemical industry during the first half of 2009 was 17% lower than same time in 2008. A decline in the production index did not continue into this year, but despite some growth since December 2008 we are still far below the production levels of summer 2008.

The chemical industry is plagued by the recession world-wide, and the Finnish chemical industry is not among the worst hit. However, there is some doubt as to whether or not this situation will continue. The most important domestic customer of the chemical industry, the pulp and paper industry, is still in deep trouble, reflecting its structural problems.

The outlook for exports is not very bright either. The most important destinations, Sweden and Russia are both in economic difficulties and in addition, the competitiveness of the Finnish chemical industry is hurt by the devaluation of the Swedish crown.

However, according to the latest business confidence indicators, expectations are approaching neutral territory. This, of course, only means that companies expect the recent decline to come to an end, but at least the chemical industry is not more pessimistic than the rest of Finnish manufacturing. □