In terms of world production, the Netherlands was a modest producer of metallic and nonmetallic minerals and mineral products. It was very important, however, as a regional producer of natural gas and petroleum for the European market and played a major role as a transshipment center for mineral materials entering and leaving continental Europe.

The Dutch economy, which has been expanding for 3 years, performed well again in 2000 with a 4.0% growth in the gross domestic product. Growth was being driven chiefly by increases in exports of goods and services, consumption, and investment. Much of the Netherlands’ reputation as a trading nation was based on the performance of Dutch industry. Commerce and industry are closely related: industrial products accounted for 70% of exports and were produced in a broad range of sectors (Netherlands Foreign Trade Agency, February 2001, The Dutch economy in 2000—Summary, accessed March 19, 2001, at URL http://www.hollandtrade.com/engels/en020101.htm).

Rotterdam, which was the world’s largest container port and a major European transportation hub, remained extremely important as a shipping and storage center. With the ever expanding inland transportation systems, goods entering or leaving Rotterdam can originate in or be destined for almost anywhere in continental Europe.

Production of mineral commodities generally remained the same or dropped slightly during 2000. The high cost of social benefits contributed to the production costs of Dutch products thus making them less competitive on the world market. The only mining operations left in the Netherlands in 2000 were involved in the extraction of limestone, peat, salt, and sand and gravel. The metal-processing sector relied almost exclusively on imported ores and concentrates and scrap (table 1).

The Government has reduced its role in the economy since the 1980s, and privatization has continued with little debate or opposition. Nevertheless, the state dominated the energy sector and played a large role in the aviation, chemicals, steel, telecommunications, and transportation sectors (table 2).

The Central Bank announced plans to sell 300 metric tons (t) of gold, which was about a third of the nation’s gold reserve. The timetable was for 100 t to be sold in 2000, and the remaining 200 t to go from 2001 to 2005. The bank had sold 400 t in 1992 (Engineering and Mining Journal, 2000).

In midyear 1999, Koninklijke Hoogovens BV and British Steel plc of the United Kingdom announced the two companies would be merged by 2000, thus creating the world’s third largest steelmaker after Posco Steel of the Republic of Korea and Nippon Steel of Japan. The newly formed company would be called the Corus Group. Aside from its large capacity—23 million metric tons combined output of crude steel in 1998—Corus would have the capacity to produce multiple metals, including stainless steel from the United Kingdom and aluminum from the Netherlands. Merging the two companies was expected to generate operational savings of about $285 million in 3 years (Metal Bulletin Monthly, 1999).

In 2000, Budel Zinc BV’s smelter received its first shipment of zinc concentrates from its parent company Pasminco Europe BV’s new Century Mine in Australia. The 10,000 t that was received was stockpiled, and Budel continued to use concentrates from its additional sources before switching to Century material. Century concentrates had been tested, and no quality problems were reported (Metal Bulletin, 2000).

The Netherlands was active on the international energy supply scene in more than one respect. The country supplied energy to Europe by pipelines and other methods and served as the entrepôt for oil products for northwestern Europe.

After Aardolie Maatschappij BV struck one of the largest gasfields in the world in the north of the Netherlands in 1959, the decision was made to begin drilling for natural gas and petroleum in the North Sea. Natural gas has become the most important mineral fuel produced in the Netherlands. The Groningen Gasfield at Slochteren is one of the world’s largest producing natural gasfields (The Netherlands Foreign Trade Agency, April 2000, The upstream gas and oil industry in the Netherlands, accessed September 19, 2000, at URL http://www.hollandtrade.com/engels/en020418.htm).

References Cited


Major Sources of Information

Geological Survey of the Netherlands
Richard Holkade, 10
2000 AD Haarlem
The Netherlands

Ministry of Economic Affairs
2500 EC The Hague
The Netherlands
TABLE 1
NETHERLANDS: PRODUCTION OF MINERAL COMMODITIES 1/ 2/
(Metric tons unless otherwise specified)

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<td>METALS</td>
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<tr>
<td>Aluminum metal:</td>
<td></td>
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<tr>
<td>Primary</td>
<td>227,027</td>
<td>231,800</td>
<td>264,000 e/</td>
<td>286,400</td>
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<td>Secondary</td>
<td>150,000</td>
<td>150,400</td>
<td>102,000</td>
<td>105,000</td>
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<td>Cadmium metal, primary</td>
<td>603</td>
<td>718</td>
<td>739</td>
<td>731</td>
<td>730</td>
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<td>Iron and steel:</td>
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<tr>
<td>Ore, sintered (from imported ore)</td>
<td>4,250,000 e/</td>
<td>4,250,000 e/</td>
<td>3,376,000</td>
<td>3,094,000</td>
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<td></td>
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<tr>
<td>Pig iron, including blast-furnace ferroalloys (if any)</td>
<td>5,545,000</td>
<td>5,804,000</td>
<td>5,561,000</td>
<td>5,307,000</td>
<td>4,969,000 4/</td>
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<td>Steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude</td>
<td>6,325,000</td>
<td>6,640,000</td>
<td>6,379,000</td>
<td>6,077,000</td>
<td>5,667,000 4/</td>
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<tr>
<td>Semismenuratures</td>
<td>4,810,000</td>
<td>5,175,000</td>
<td>4,964,000</td>
<td>5,000,000 e/</td>
<td>5,000,000</td>
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<td>Lead, metal, refined, secondary</td>
<td>22,000 e/</td>
<td>19,500 e/</td>
<td>13,200</td>
<td>19,900</td>
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<td>Zinc, metal, primary</td>
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<td>208,800</td>
<td>218,700</td>
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<td>Cement, hydraulic e/</td>
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<td>3,200,000</td>
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<td>Magnesium compounds: e/</td>
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<td>Chloride</td>
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<td>23,000</td>
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<tr>
<td>Oxide</td>
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<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
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<td>Nitrogen, N content of ammonia thousand tons</td>
<td>2,653</td>
<td>2,478</td>
<td>2,350 e/</td>
<td>2,430 e/</td>
<td>2,540</td>
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<td>Salt, all types e/ do.</td>
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<td>5,500</td>
<td>5,500</td>
<td>5,000</td>
<td>5,000</td>
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<td>Sand, industrial e/ do.</td>
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<td>24 t/</td>
<td>14 t/</td>
<td>15 e/</td>
<td>15</td>
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<tr>
<td>Sodium compounds, n.e.s.: e/</td>
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<td>400,000</td>
<td>400,000</td>
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<td>Sulfate</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Natural</td>
<td>20,000</td>
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<td>Synthetic</td>
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<td>15,000</td>
<td>15,000</td>
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<td>Sulfur: e/</td>
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<td>Elemental byproduct:</td>
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<tr>
<td>Of metallurgy</td>
<td>150,000</td>
<td>150,000</td>
<td>131,000</td>
<td>129,000</td>
<td>84,000 4/</td>
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<td>Of petroleum and natural gas</td>
<td>150,000</td>
<td>138,000</td>
<td>432,000</td>
<td>445,000</td>
<td>428,000 4/</td>
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<tr>
<td>Total</td>
<td>300,000</td>
<td>288,000</td>
<td>563,000</td>
<td>574,000</td>
<td>512,000 4/</td>
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<tr>
<td>Sulfuric acid, 100% H2SO4 e/</td>
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<td>1,250,000</td>
<td>1,250,000</td>
<td>1,000,000</td>
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<td>Coke, metallurgical</td>
<td>2,800,000 e/</td>
<td>2,800,000 e/</td>
<td>2,829,000</td>
<td>2,247,000</td>
<td>2,300,000</td>
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<td>Gas:</td>
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<tr>
<td>Manufactured e/ million cubic meters</td>
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<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
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<td>Natural:</td>
<td></td>
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<td></td>
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<tr>
<td>Gross do.</td>
<td>89,700</td>
<td>80,000 e/</td>
<td>76,331</td>
<td>68,528</td>
<td>70,000</td>
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<td>Marketed do.</td>
<td>86,000 e/</td>
<td>86,000 e/</td>
<td>75,201</td>
<td>67,228</td>
<td>68,000</td>
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<tr>
<td>Natural gas liquids e/ thousand 42-gallon barrels</td>
<td>170,000</td>
<td>170,000</td>
<td>170,000</td>
<td>160,000</td>
<td>170,000</td>
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<tr>
<td>Petroleum:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude thousand 42-gallon barrels</td>
<td>21,086</td>
<td>21,276</td>
<td>19,164</td>
<td>19,000 e/</td>
<td>20,000</td>
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<td>Refined products: do.</td>
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<td></td>
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<td>Liquefied petroleum gas do.</td>
<td>3,600 e/</td>
<td>3,600 e/</td>
<td>3,456</td>
<td>4,210</td>
<td>4,200</td>
</tr>
<tr>
<td>Mineral jelly and wax do.</td>
<td>600 e/</td>
<td>600 e/</td>
<td>936</td>
<td>990</td>
<td>900</td>
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<tr>
<td>Gasoline, motor do.</td>
<td>75,000 e/</td>
<td>75,000 e/</td>
<td>76,653</td>
<td>78,948</td>
<td>80,000</td>
</tr>
<tr>
<td>Naphtha and white spirit do.</td>
<td>50,000 e/</td>
<td>50,000 e/</td>
<td>45,960</td>
<td>45,195</td>
<td>45,000</td>
</tr>
<tr>
<td>Jet fuel do.</td>
<td>40,000 e/</td>
<td>40,000 e/</td>
<td>50,808</td>
<td>55,816</td>
<td>50,000</td>
</tr>
<tr>
<td>Kerosene do.</td>
<td>500 e/</td>
<td>500 e/</td>
<td>488</td>
<td>473</td>
<td>500</td>
</tr>
<tr>
<td>Refinery gas do.</td>
<td>20,000 e/</td>
<td>20,000 e/</td>
<td>11,858</td>
<td>11,480</td>
<td>12,000</td>
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<tr>
<td>Lubricants do.</td>
<td>3,800 e/</td>
<td>3,800 e/</td>
<td>4,459</td>
<td>4,375</td>
<td>4,500</td>
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<tr>
<td>Residual fuel oil do.</td>
<td>85,000 e/</td>
<td>85,000 e/</td>
<td>102,605</td>
<td>81,127</td>
<td>81,000</td>
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<tr>
<td>Bitumen do.</td>
<td>4,500 e/</td>
<td>4,500 e/</td>
<td>4,499</td>
<td>4,260</td>
<td>4,400</td>
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<tr>
<td>Unspecified do.</td>
<td>25,000 e/</td>
<td>25,000 e/</td>
<td>31,913</td>
<td>33,313</td>
<td>30,000</td>
</tr>
<tr>
<td>Total do.</td>
<td>308,000 e/</td>
<td>308,000 e/</td>
<td>333,635</td>
<td>320,187</td>
<td>313,000</td>
</tr>
</tbody>
</table>

e/ Estimated. e/ Revised.
1/ Table includes data available through March 2001.
2/ Estimated data are rounded to no more than three significant digits; may not add to totals shown.
3/ In addition to the commodities listed, the Netherlands produced construction materials, such as sand and gravel, but output was not reported, and no basis exists to make reliable estimates of output.
4/ Reported figure.
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Major operating companies</th>
<th>Location of main facility</th>
<th>Annual capacity</th>
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<tr>
<td>Aluminum</td>
<td>Pechiney Nederland NV</td>
<td>Smelter at Vlissingen</td>
<td>175</td>
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<tr>
<td>Do.</td>
<td>Corus Group</td>
<td>Smelter at Delfzijl</td>
<td>100</td>
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<tr>
<td>Secondary</td>
<td>Alumax Recycling BV</td>
<td>Smelter at Kerkade</td>
<td>50</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Budelco BV (Australian Overseas Smelting Pty. Ltd, 50%; Kempenrhsche Zinkmaatschappij Zins de la Campine BV, 50%)</td>
<td>Plant at Budel-Dorplein</td>
<td>650</td>
</tr>
<tr>
<td>Cement</td>
<td>ENCI Nederland BV (Eerste Nederlandse Cement Industrie NV)</td>
<td>10 plants at Maastrict</td>
<td>2,700</td>
</tr>
<tr>
<td>Do.</td>
<td>Cementfabriek Utmuiden BV</td>
<td>3 plants at Utmuiden</td>
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</tr>
<tr>
<td>Do.</td>
<td>Cementfabriek Rozenburg BV</td>
<td>2 plants at Rozenburg</td>
<td>920</td>
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<tr>
<td>Lead</td>
<td>Hollandse Metallurgische Industrie Billiton BV</td>
<td>Electrolytic plant at Arnhem</td>
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<tr>
<td>Do.</td>
<td>Billiton Witmetaal BV</td>
<td>Electrolytic plant at Naarden</td>
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<td>Limestone</td>
<td>Ankerpoort NV (Lhoist SA, 100%)</td>
<td>Mines at Maastricht and Winterswijk</td>
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<tr>
<td>Magnesia</td>
<td>Nedmag Industries Mining &amp; Manufacturing BV</td>
<td>Plant at Veenendaan</td>
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<td>Do.</td>
<td>MAF Magnesite BV</td>
<td>Plant at Schiedam</td>
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<td>Natural gas</td>
<td>Nederlandse Aardolie Maatschappij BV (NAM)</td>
<td>Groningen, Leeuwarden, Assen, and other onshore gasfields and several offshore wells in the North Sea</td>
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<tr>
<td>Petroleum, crude</td>
<td>AMOCO, CONOCO, and UNOCAL</td>
<td>766 wells (204 producing) including North Sea fields: Haven, Helder, Helm, Hoorn, Kotter, Logger, and Rijn</td>
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<td>Do.</td>
<td>NAM</td>
<td>Onshore fields: Berkel, Delier, Ijsselmonde, Meerkapelle, Pernis, West, Pinacke, Rotterdam, Schoonebeek, Werkendam, and Zoetemeer</td>
<td>(20,500)</td>
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<tr>
<td>Refineries</td>
<td>6 companies, of which the major ones are:</td>
<td></td>
<td>1,230,500</td>
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<td>Do.</td>
<td>Netherlands Refining Co.</td>
<td>Refinery at Rotterdam</td>
<td>(446,000)</td>
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<td>Do.</td>
<td>Shell Nederland Raffinaderij BV</td>
<td>Refinery at Pernis</td>
<td>(374,000)</td>
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<tr>
<td>Do.</td>
<td>Esso Nederland BV</td>
<td>Refinery at Rotterdam</td>
<td>(175,000)</td>
</tr>
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<td>Do.</td>
<td>Total Raffinaderij Nederland NV</td>
<td>Refinery at Vlissingen</td>
<td>(150,000)</td>
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<td>Salt</td>
<td>Akzo Salt and Basic Chemicals BV</td>
<td>Mines at:</td>
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<tr>
<td>Do.</td>
<td></td>
<td>Hengelo</td>
<td></td>
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<tr>
<td>Do.</td>
<td></td>
<td>Delfzijl</td>
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<td>Sand, silica</td>
<td>Lieben Minéraux BV</td>
<td>Mines at South Limburg</td>
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<td>Sodium</td>
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<td>Plant at Delfzijl</td>
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<td>Sulfate, synthetic</td>
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<td>Plant at Delfzijl</td>
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<td>Steel</td>
<td>Corus Group</td>
<td>Plant at Vlissingen</td>
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<tr>
<td>Zinc</td>
<td>Budel Zinc BV (Pasmico Europe BV)</td>
<td>Plant at Budel-Dorplein</td>
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</table>