COCAINE

“Cocaine” comprises at least two distinct drug products: powder cocaine on the one hand, and a range of cocaine base products, mostly falling under the heading of “crack”, on the other. Powder cocaine is a milder drug generally snorted by the wealthy, while crack and other base products present an intense high favoured by the poorer users. Chemically, the substance consumed is the same, but the addition of baking soda and heat allows cocaine to be smoked, a far more direct method of ingestion.

Both products are derived from a plant cultivated on some 170,000 hectares in remote areas of Colombia, Peru and the Plurinational State of Bolivia. From there, cocaine is distributed to at least 174 countries around the world. This chapter is about how this is done, focusing on the two largest destination markets: North America and Europe.

The coca plant is indigenous to Peru and the Plurinational State of Bolivia, and these two countries produced most of the world’s coca leaf from the 1960s until the mid-1990s. In the 1970s, Colombian traffickers were still exporting cannabis, at one point supplying 70% of the US market. But just as they began to lose market shares to cannabis produced closer to the consumers, the cocaine market began to boom, and they were well-positioned to make the transition. Colombia emerged as the world’s largest producer of cocaine as of the late 1970s.

Initially, Colombian traffickers limited their role to cocaine processing and transportation, leaving the cultivation to farmers in the Plurinational State of Bolivia and Peru. This required large-scale transnational trafficking of coca paste. After the demise of the large Colombian drug cartels and the successful interruption of flights from Peru in the first half of the 1990s, Colombian traffickers began to organize coca cultivation in their own country, and Colombia emerged as the world’s largest coca leaf producer as of 1997. Following large-scale eradication efforts, the Colombian authorities succeeded in reducing the area under coca cultivation by 50% between 2000 and 2008. Despite such decreases, Colombia remains, however, the single largest cultivator.

In 2008, global cocaine supply declined to 865 metric tons, down from 1,024 tons a year earlier, equivalent to a fall of 15%. This was primarily a reflection of a strong decline in cocaine production in Colombia, more than offsetting the increases reported from Peru and the Plurinational State of Bolivia. Colombia accounted for about half of global cocaine production in 2008 (450 tons), followed by Peru (302 tons) and the Plurinational State of Bolivia (113 tons).

The value of the global cocaine market peaked during the US ‘epidemic’ of the 1990s, and it has declined considerably since that time. But use of the drug has spread to many more countries, and over the last decade, use has doubled in the high-value European market. In 1980, cocaine seizures were reported by 44 countries and territories worldwide.

FIG. 75: GLOBAL COCA BUSH CULTIVATION, 1990-2008

Source: UNODC, World Drug Report 2009
This number almost tripled to 130 countries and territories in 2007/2008.

In 2007/2008, cocaine was used by 16 to 17 million people worldwide (broad range: 15-19 million), which is similar to the number of global opiate users. Most of the cocaine users are in North America (about 6.2 million users in 2008) and in Europe (about 4.5 million users in 2007/2008), with most of whom are concentrated in the EU and EFTA countries (4.1 million). North America accounts for more than 40% of global cocaine consumption (the total is estimated at around 470 tons); whereas the 27 EU and four EFTA countries were responsible for more than a quarter of global cocaine consumption. These two regions comprise more than 80% of the value of the global cocaine market, estimated at US$88 billion in 2008.

Despite declines in cultivation area, cocaine production has been largely stable since the mid-1990s (between 800 and 1,100 tons). Improved coca leaf yields and improvements in the techniques used to extract the drug are believed to have offset declines in the area under coca cultivation. In the face of a declining US market, the need to find buyers for this constant supply may have been a factor in its proliferation.

Though the days of the big Colombian drug cartels are gone, international cocaine trafficking is still far more ‘organized’ and large-scale in nature than trafficking of most other drugs, as reflected in the size of cocaine shipments. The average cocaine seizure is 10 to 20 times larger than the average heroin seizure. Several multi-ton cocaine seizures are made every year, a quantity unheard of in heroin markets. This suggests either very well-resourced organizations or cooperation between smaller organizations which reflects a high level of organizational maturity. After more than 40 years of trafficking drugs, this is not surprising.

Trafficking to developing countries – the case of the Southern Cone

The third largest consumer market for cocaine is South America, home to some 2.4 million users. Most of this market is concentrated in the Southern Cone, and most of it emerged only recently. Due to its population size, the greatest number of users (nearly 1 million) is found in Brazil, but the problem is most intense in Argentina, where an estimated 2.6% of the adult population used the drug in 2006, about the same as the United States. This figure has increased markedly since 1999, when it was just 1.9%. School surveys conducted in Argentina, Chile, Ecuador, Peru, the Plurinational State of Bolivia and Uruguay found the share of students who had used cocaine in their lifetime increased from 1% in 2001 to 2.2% in 2005 and 2.7% in 2007.

The growth of cocaine consumption in the Southern Cone appears to be linked to production increases in both the Plurinational State of Bolivia and Peru. In particular, the Plurinational State of Bolivia used to be a supplier of coca paste to Colombian refiners, but enhanced control over air traffic and growing production within Colombia seem to have broken this link. This left Bolivian cultivators - who had little experience in refining or trafficking cocaine and poor access to precursor chemicals - in search of a new market for their products. Brazilian traffickers were quick to take advantage of this directionless supply.

It may be that coca paste was first moved into the Southern Cone solely for further refinement, but there soon emerged a market, often in startlingly poor communities, for cocaine base itself, consumed as “merla” in Brazil and “paco” in Argentina. These products are similar to crack, but with greater impurities, as they emerge earlier in the refining process. At the same time, cocaine hydrochloride, which was increasingly transiting the region on its way to growing markets in Europe, also found buyers among the most affluent.

Cocaine demand is declining in North America and appears to be peaking in Europe, while supply remains essentially unchanged. The targeting of markets in the developing economies of South America represents a disturbing trend, as these countries have fewer resources to combat the negative effects cocaine can have on health and violent crime.

FIG. 76: MAIN GLOBAL COCAINE FLOWS, 1998 AND 2008

1998

2008

4.1. From the Andean Region to North America

**Route**

Source: Mostly Colombia, to a lesser extent Peru

Vector: Maritime to Central America and Mexico, especially along the Pacific Coast

Destination: Mexico, United States of America, Canada

**Dimensions**

Annual market volume: 309 tons depart; 196 tons consumed in North America (2008)

Annual value at destination: US$38 billion (2008)

**Traffickers**

Groups involved: Colombian, Mexican

Residence of traffickers: Colombia, Mexico, United States of America

**Threat**

Estimated trend: Declining in terms of volume of cocaine; increasing in terms of violence

Potential effects: Addiction across the trafficking routes; drug-related crime, corruption and violence in the Andean region; links with illegal armed groups in the Andean region; destabilization and corruption in neighbouring states, Central America and Mexico

Likelihood of effects being realized: High
What is the nature of this market?

The largest regional cocaine market worldwide is North America. With close to 6.2 million annual users, it accounts for 36% of the global user population, most of whom are found in the USA. The USA remains the single largest national cocaine market in the world, but this market has been in decline over the last three decades. In 1982, an estimated 10.5 million people in the US had used cocaine in the previous year. By 2008, this number had fallen to 5.3 million. In other words, over a 25-year period, the cocaine trade has had to adjust to a loss of 50% of users in its largest market.

This decline in demand has been particularly strong since 2006. In that year 2.5% of the US population aged 12 and above was estimated to have used cocaine in the previous year. This figure dropped to 2.3% in 2007 and 2.1% in 2008. Similar trends can be seen in school survey data, where a declining share of young people is using the drug (down 40% from 2006 to 2009), and a growing share is saying it is difficult to find cocaine. Still, the 2009 US Drug Threat Assessment states that “Cocaine trafficking is the leading drug threat to the United States.”

A recent decline has also been seen in Canada, from 1.9% in 2004 to 1.5% of the population aged 15 and above in 2008. In Mexico, household surveys showed an increase in cocaine use from 0.35% in 2002 of the population aged 18-64 to close to 0.6% in 2008. However, results from a survey in Mexico City in 2006 suggest that this net increase may have been due to a rapid rise between 2002 and 2006, with a decline since that time.

This sudden drop in overall cocaine popularity in North America can also be demonstrated by US forensic data. The share of the US workforce that tests positive for cocaine use, as detected by urine analysis, shows a 58% decline between 2006 and the first two quarters of 2009. Some 6 million people undergo these tests; a much larger sample than in the household surveys.

The long-term decline of cocaine use in the USA over the 1985-2009 period has been attributed to a number of causes, including ‘social learning’ leading to a decline in demand. Crack cocaine became a highly stigmatized drug in the second half of the 1980s, and powder cocaine use also became less fashionable.

The more recent decline since 2006 appears to have been supply-driven. An analysis of prices and use rates suggests that it was caused by a severe cocaine shortage, reflected in rapidly falling purity levels and a consequent rise in the cost per unit of pure cocaine, doubling over the 2006-2009 period. Past shortages have been linked to interdiction efforts, but the market has generally recovered, typically after about six months. This time, recovery seems to have taken much longer, and price declines in 2009 were not enough to recover lost demand. One reason may be the sheer scale of the disruption: in 2007, five of the 20 largest individual cocaine seizures ever made were recorded, including the very largest (24 tons in Mexico). Inter-cartel violence in Mexico also seems to have seriously undermined the market. Finally, recent declines in cocaine production in Colombia, the main supplier to the US market, also seem to have played a role.

How is the trafficking conducted?

The bulk of the cocaine that enters the United States comes from Colombia. Forensic analyses of cocaine seized or purchased in the USA have repeatedly shown that nearly 90% of the samples originated in Colombia. Peru is a lesser supplier, and the Plurinational State of Bolivia appears to have basically lost contact with the North American market.

The routes and means of conveyance by which cocaine is moved from South America to North America have varied over time, partly in response to enforcement efforts and partly due to changes in the groups doing the trafficking. In the 1970s, Colombian traffickers, often employing US veter-
ans as pilots, flew cocaine to the US, initially directly and later via the Caribbean. Once strict radar surveillance made flights more difficult, a combination of air drops and maritime smuggling became popular, with the Caribbean still favoured. The Colombians formed relationships with Cubans in the USA and later with Dominicans, paying them in kind rather than in cash, establishing in the process a Cuban and a Dominican wholesaling and retailing network that persists in Florida (Cubans) and in the north-east of the country (Dominicans) to this day.

Increased enforcement in the Caribbean in the 1980s and the 1990s pushed the drug flow further westward, and Mexican traffickers became involved. A combination of maritime routes to Mexico with a land border crossing in the USA came into fashion. The Mexican groups were paid to transport the drug across Mexico and the US border, turning it over to Colombian groups in the USA.

Also paid in kind, the Mexicans had several advantages over other groups. While radar and other surveillance measures made it difficult to traffic drugs directly into the United States via air or sea, the Mexicans controlled the land border, which is much more difficult to police, given the massive licit trade between the two countries. The Mexican groups were very experienced in smuggling drugs into the US, having moved Mexican heroin and cannabis across the border since the 1930s, and in huge quantities since the 1970s. The size of their expatriate network in the US was also much larger.

As the Mexicans strengthened their hold in the main destination country, the Colombian groups were under pressure at home. The dismantling of the large Colombian drug cartels in the first half of the 1990s and the extradition of major players to the US after 1997 further tilted the balance of power in favour of the Mexicans, since the Mexican Government was more reluctant to extradite at that time. To avoid extradition, many Colombian groups moved out of direct trafficking to the USA. As a result, they were largely reduced to being suppliers to the emerging Mexican cartels.

Today, cocaine is typically transported from Colombia to Mexico or Central America by sea (usually by Colombians) and then onwards by land to the United States and Canada (usually by Mexicans). The US authorities estimate that close to 90% of the cocaine entering the country crosses the US/Mexico land border, most of it entering the state of Texas and, to a lesser extent, California and Arizona. According to US estimates, some 70% of the cocaine leaves Colombia via the Pacific, 20% via

Source: US Drug Enforcement Agency, based on STRIDE data, quoted in DEA Intelligence Division, “Cocaine Shortages in U.S. Markets, November 2009”
the Atlantic, and 10% via the Bolivarian Republic of Venezuela and the Caribbean.\textsuperscript{13}

Direct cocaine shipments from Colombia to Mexico have been moved by a wide variety of marine craft over years, recently including self-propelled semi-submersibles often transporting several tons of cocaine (typically between 2 and 9 tons). In 2008, 29.5 tons of cocaine were seized by the Colombian navy on board semi-submersibles in the Pacific Ocean, equivalent to 46\% of all seizures made at sea by the Colombian authorities in the Pacific (64.5 tons). A few of these vessels have been detected on the Atlantic side as well.

The Colombian Government reported seizing 198 tons of cocaine in 2008, of which 58\% took place in the Pacific Region (departments of Choco, Valle and Nariño) and 31\% took place in the Atlantic Region (departments of Guajira, Cordoba, Bolivar and Antioquia).\textsuperscript{14} A large and growing share of the Colombian maritime seizures are made in the Pacific.

The share of Colombian seizures made on land increased dramatically in 2008, largely due to overland shipments to the Bolivarian Republic of Venezuela. According to Colombian, US and European sources, that country has become a more prominent trans-shipment location for cocaine destined for Europe and the USA, but some heads for Europe or is consumed locally.

Who are the traffickers?

One study, analysing data from the late 1990s, suggested that there are at least seven layers of actors between a coca farmer in the Andean countries and the final consumer in the USA:\textsuperscript{15}

- **Step 1:** The farmer sells the coca leaf (or his self-produced coca paste) to a cocaine base laboratory, operated by the farmers themselves or by various criminal trafficking groups. Sometimes these labs have the capacity to refine the drug further into cocaine hydrochloride.
- **Step 2:** The cocaine base (or the cocaine hydrochloride) is sold to a local trafficking organization, which transports and sells the cocaine to a transnational drug trafficking organization.
- **Step 3:** The drug trafficking organization contracts yet another group to do the actual shipping.
- **Step 4:** The cocaine is shipped to Mexican traffickers.
- **Step 5:** The Mexican traffickers transport the drug across the US border to wholesalers.
- **Step 6:** The wholesalers sell the cocaine to local mid-level dealers or street dealers across the USA.
- **Step 7:** The street dealers sell the cocaine to the consumer.

Following the dismantling of the Medellin and Cali cartels in the early 1990s, the Colombian organized...
crime groups got smaller, and market competition increased, pushing prices down. After the Colombian Congress amended the Constitution in 1997 to allow the extradition of citizens,18 Colombian groups were largely relegated to the front end of the market chain (steps 1 to 4). Despite these precautions, the number of extraditions continues to grow. Better controls, first for direct flights from Colombia to the USA (starting in the 1980s), and later improved control over shipping in the Caribbean (in the 1990s) also reduced the ability of the Colombian organized crime groups to traffic cocaine directly to the United States.

In addition, criminal groups from Caribbean countries are also involved in cocaine trafficking, notably groups with links to the Dominican Republic. Dominican organized crime groups have been identified in at least 54 cities. They operate mainly in locations along the east coast, including in New York/New Jersey, the New England and Mid-Atlantic regions, as well as in Florida. In addition, US-based Cuban organized crime groups pose a threat, because of their affiliations to drug traffickers in Peru, the Bolivarian Republic of Venezuela and Colombia. They were identified to operate distribution networks in at least 25 US cities.19

How big is the flow?

One comprehensive attempt to gauge the size the US cocaine market was produced by the Office of National Drug Control Policy (ONDCP) in 2001. Entitled “What America’s Users Spend on Illegal Drugs,” the report estimated the number of chronic and occasional cocaine users, and multiplied these numbers with a per capita expenditure estimate, derived from interviews with arrested persons who had used drugs. Based on these dollar amounts, the actual amounts consumed could be calculated. Simply extending these trends, using the annual prevalence level from the national drug use survey data, would produce a total cocaine demand of 231 tons for 2008. But this simple extension may not sufficiently capture the recent dramatic declines in cocaine use.

Revisiting these calculations and making use of new data,20 it is possible to generate an estimate of 2.3 million chronic users and just under 3 million casual users in the USA21 in 2008. It is also possible to derive a new consumption estimate of 31 grams of pure cocaine per average user per year,22 resulting in an estimate of 165 tons total consumption for the year 2008.

A simplified new model, proposed by ONDCP, applies different use rates to annual consumers who used cocaine in the month of the survey and those who did not.23 Applying this technique delivers a consumption range of between 140 and 164 tons or 2008.24
Based on these estimates, ranging from 140 to 231 tons, UNODC’s ‘best estimate’ is 165 tons in 2008. This total is very similar to that produced by another study using a different methodology, which estimated 2008 cocaine demand in the USA at less than 175 tons.\(^26\)

Using the simplified ONDCP model, a consumption estimate of 17 tons for Mexico and 14 tons for Canada can be calculated for the year 2008. Thus the ‘best estimate’ of the demand for cocaine in North America is 196 tons for the year 2008, with a range from 171 to 262 tons.

How much cocaine must leave South America to satisfy this demand? Factoring in purity-adjusted seizures along the route, it appears that some 309 tons of cocaine left South America for the North American market in 2008. This represents close to 50% of total production after purity-adjusted

Sources: Multiple sources\(^{25}\)
seizures in the three Andean countries. The share of all cocaine production destined for North America is down from around 60% in 1998.

Some of the decline in 2008 can be explained in terms of declining production in Colombia, the dominant supplier of the drug to North America. However, the decline of consumption in North America was even more pronounced than the decline in total cocaine availability in the Andean region. Interdiction in Mexico and Central America appears to have played an important role.

Based on this flow model, it is possible to estimate the value of the market at each point in the trafficking chain. Returning again to the original ONDCP calculations, an extension of this series using updated price data suggests a drastic reduction in value for the US market, from almost US$134 billion in 1988 (expressed in constant 2008 US dollars) to

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**FIG. 84:** COCAINE PRODUCTION AND DEMAND FOR COCAINE, NORTH AMERICA, 1998-2008

**FIG. 85:** VALUE OF THE US COCAINE MARKET (IN CONSTANT 2008 US DOLLARS), 1988-2008

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Sources: Multiple sources28, 29
US$ 44 billion in 1998 and US$35 billion in 2008. This decline is a result of the long-term trend; the recent sharp decline of cocaine supply to the USA has not resulted in a corresponding decline in value because the falling supply of cocaine went hand in hand with rising (purity-adjusted) cocaine prices.

Using similar methods, the value of the Canadian cocaine market can be estimated at around US$2.4 billion and the Mexican market at around US$300 million for the year 2008. The analysis suggests that the total North American cocaine market declined from some US$47 billion in 1998 to US$38 billion in 2008, reflecting lower quantities and lower prices. Between 2006 and 2008, the market, in dollar terms, remained basically stable.

Who benefits most from this flow? Using price data and volumes for each point in the trafficking chain, the value accruing to each market player can be estimated. Based on the volume and price data collected by UNODC in the Andean countries during the annual illicit crop surveys, the coca farmers in the three Andean countries earned about US$1.1 billion in 2008, down from US$1.5 billion in 2007. About 50% of the farmers’ income came from coca production for the North American market. In other words, the share of the Andean farmers in total North American cocaine sales amounted to just 1.5% in 2008. The amounts generated from processing and trafficking activities within the Andean countries for cocaine destined to be shipped towards North America amounted to around US$400 million, or around 1% of the total cocaine business.

Some 309 tons of cocaine left the Andean region for destinations in North America in 2008. Deducting seizures, some 208 tons arrived in the hands of the Mexican cartels. Most of the trafficking from Colombia to Mexico remained, however, in the hands of Colombian groups. At a wholesale price of US$12,500 per kilogram (US$ 15,625 per kilogram if purity adjusted), the value of the cocaine in Mexico amounted to US$3.3 billion. With a purchase price of just under one billion dollars in Colombia, the total gross profits accruing to those importing cocaine to Mexico can be estimated at around US$2.4 billion (excluding costs of shipping). Given the current price structure, the seizures made by the Colombian and Peruvian navies, the Central American and Caribbean countries and the Mexican authorities would have to increase by more than 150% to eliminate the profitability of importing cocaine to Mexico.

The next key step is to ship the cocaine from Mexico into the USA. This operation is primarily undertaken by the Mexican drug cartels. Taking seizures,
domestic Mexican consumption, and purity into account, Mexican cartels moved some 191 tons of pure cocaine across the border to the United States in 2008, valued at US$3 billion. If all of this were sold to wholesalers in the USA, this would be worth US$6.4 billion. But border seizures reduced the amount available for sale to 178 tons in 2008, or US$5.8 billion. Deducting purchase costs, a gross profit of US$2.9 billion was generated that year moving the cocaine across the border into the USA. Most of these profits are reaped by the Mexican drug cartels.

The largest profits, however, are generated within the USA: US$29.5 billion between the US wholesale level and US consumers. Out of these gross profits, the bulk is made between the mid-level dealers and the consumers, accounting for more than US$24 billion or 70% of the total size of the US cocaine market. Some Mexican cartel groups such as La Familia Michoacan are tapping into this highly lucrative market, but most appears to go to a large number of small domestic US groups, operating across the USA.

While retail sales were responsible for the largest share of the profits, they were also spread among a much larger number of actors. Estimates by the Institute for Defense Analyses on the number of persons involved in cocaine trafficking in the 1990s suggested that there were some 200 cocaine wholesalers in the USA and some 6,000 mid-level cocaine dealers.35 This would give a ratio of 1:30, suggesting that the per capita gains in the last trafficking phase, from the mid-level dealers to the consumers, are actually much smaller than the per capita gains generated at the earlier phases of the trafficking chain.
4.2. From the Andean Region to Europe

**Route**

Source: **Colombia, Peru, the Plurinational State of Bolivia**

Vector: **Maritime, to a lesser extent by air and by postal services; directly from the Andean region or via the Bolivarian Republic of Venezuela or Brazil, or via the Caribbean or West Africa to Europe**

Destination: **Spain, Portugal, Netherlands, Belgium and the rest of Europe**

**Dimensions**

Annual market volume: **212 tons depart; 124 consumed in Europe (2008)**

Annual value at destination: **US$34 billion (2008)**

**Traffickers**

Groups involved: **Colombian, Caribbean, West African, European**

Residence of traffickers: **Colombia, Caribbean, West Africa, Europe**

**Threat**

Estimated trend: **Stable**

Potential effects: **Addiction, drug related crime and violence, destabilization and corruption in the Andean countries, the Caribbean and West Africa**

Likelihood of effects being realized: **High**
What is the nature of this market?

The 27 countries of the European Union34 (EU) and the four countries of the European Free Trade Association35 (EFTA) host the world’s second largest cocaine market after North America. Nine out of ten of Europe’s 4.1 million cocaine users are found in the EU/EFTA countries. The single largest cocaine market within Europe is the United Kingdom (1 million users in 2007/08), followed by Spain, Italy, Germany and France.

The number of cocaine users in the EU/EFTA countries has doubled over the last decade, from 2 million in 1998 to 4.1 million in 2007/08. Despite this increase, the cocaine prevalence rate in the EU-27 as well as in the EU-15 countries is still lower than in North America. Individual European countries, notably Spain (3.1% in 2007/08) and the UK (3.0% in 2008/09), have higher annual prevalence rates than the USA, however. But preliminary data suggest the rapid growth of the European cocaine market is beginning to level off.

How is the trafficking conducted?

Most of the trafficking of cocaine to Europe is by sea, often in container shipments, though deliveries by air and by postal services also occur. According to data from the World Customs Organization, 69% of the total volume of cocaine seized en route to Western Europe was detected on board boats or vessels, concealed in freight or in the vessels’ structure. While bulk shipments come by sea, a large number of smaller shipments are detected at airports and in the post.38

Most cocaine shipments to Europe are destined for one of two regional hubs: Spain and Portugal in the south and the Netherlands and Belgium in the north. The Iberian peninsula has cultural, linguistic and colonial ties to Latin America as well as a long and proximate sea coast. Parts of the Netherlands lie in the Caribbean (Aruba and the Netherlands Antilles) and Suriname in South America was a former Dutch colony. Rotterdam (Netherlands) and Antwerp (Belgium) are Europe’s largest seaports. From these hubs, cocaine is distributed to the rest of

### FIG. 88: NATIONAL SHARES OF THE COCAINE USER POPULATION IN EUROPE, 2007/2008

- **UK**, 23%
- **Spain**, 21%
- **Italy**, 19%
- **Germany**, 9%
- **France**, 5%
- **EFTA countries**, 2%
- **Other EU countries**, 13%
- **Other European countries**, 8%

Sources: Multiple sources36

### FIG. 89: ANNUAL PREVALENCE OF COCAINE USE IN THE EU AND EFTA COUNTRIES, 1998-2008

<table>
<thead>
<tr>
<th>Year</th>
<th>EU and EFTA</th>
<th>EU-27</th>
<th>EU-15</th>
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<tbody>
<tr>
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<td>0.6%</td>
<td>0.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>1999</td>
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<td>0.7%</td>
<td>0.8%</td>
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<tr>
<td>2000</td>
<td>0.8%</td>
<td>0.9%</td>
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<td>2001</td>
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<td>2002</td>
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<td>2008</td>
<td>1.5%</td>
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<td>1.5%</td>
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</tbody>
</table>

Sources: Multiple sources37
Europe. Between them, Spain, Portugal, the Netherlands and Belgium accounted for close to 70% of all cocaine seized in Europe in 2008, but less than one quarter of the cocaine use.

Colombia remains the main source of the cocaine found in Europe, but direct shipments from Peru and the Plurinational State of Bolivia are far more common than in the US market. The relative importance of Colombia seems to be in decline. For example, in 2002, the UK authorities reported that 90% of the cocaine seized originated in Colombia, but by 2008, the figure fell to 65%. In a number of other European countries, Peru and the Plurinational State of Bolivia seem to be the primary source of cocaine.

The routes taken to arrive in Europe have changed in recent years. Between 2004 and 2007, at least two distinct trans-shipment hubs emerged in West Africa: one centred on Guinea-Bissau and Guinea, and one centred in the Bight of Benin which spans from Ghana to Nigeria. Colombian traffickers transported cocaine by ‘mother ship’ to the West African coast before offloading to smaller vessels. Some of this cocaine proceeded onward by sea to Spain and Portugal, but some was left as payment to West Africans for their assistance – as much as 30% of the shipment.39 The West Africans then trafficked this cocaine on their own behalf, largely by commercial air couriers. Shipments were also sent in modified small aircraft from the Bolivarian Republic of Venezuela to various West African destinations.

Political turmoil in the northern hub and successful interdiction elsewhere appears to have dampened this transit route for the time being, although it could quickly re-emerge. The decline in trafficking, affecting in particular Lusophone Africa, may also be a reason why Portugal has seen a sharp decline in cocaine seizures between 2006 and 2008, following strong increases over the 2003-2006 period.

The Bolivarian Republic of Venezuela has also emerged as a key transit country for shipments to Europe, particularly for large maritime shipments. The single largest cocaine seizure in 2008 was 4.1 tons of cocaine seized from a commercial vessel coming from the Bolivarian Republic of Venezuela, and 2.5 tons were also seized on a fishing boat coming from that country.40 According to the new Maritime Analysis Operation Centre (MAOC-N), more than half (51%) of all intercepted shipments in the Atlantic started their journey in the Bolivarian Republic of Venezuela. Direct shipments from Colombia, in contrast, accounted for just 5%.41

MAOC-N also reports that sailing vessels travelling from the Caribbean to Europe are the most common source of seizures, followed by freight vessels, and other motor vessels.42 In contrast, semi-submersibles, which have gained strongly in importance in trafficking cocaine from Colombia to Mexico in recent years, do not as yet play any significant role in Europe – only one has been sighted, in Galicia, northern Spain in 2006.43

Overall seizure data for Europe showed a strong increase of cocaine interceptions over the 1998-2006 period, from 32 to 121 tons, followed by a significant decline over the 2006-08 period. Nonetheless, overall cocaine seizures in 2008 were almost twice as high as in 1998. By far the largest national seizures were reported by Spain, accounting for 45% of all European cocaine seizures made over the 1998-2008 period.

Not surprisingly, the Spanish figures reflect both the strong increase and the recent decline of cocaine seizures in Europe. These trends are also seen in Spanish survey data about the ease of obtaining cocaine in the country.44 Two thirds of the seizures made by Spain in 2007 took place in international waters and a further 11% were made in containers. A much smaller share (2%) were made close to the country’s beaches, whereas seizures at airports accounted for just 6% of all the cocaine seized.45

Seizures made by the Portuguese authorities reflect the patterns seen in Spain. The increases until 2006 and the declines thereafter (from 34 tons in 2006 to 5 tons in 2008) were, however, even more pronounced. This seems to reflect the strong increases
and declines of West Africa, notably of the Lusophone countries (Guinea-Bissau and Cape Verde) as major cocaine transit zones in recent years.

Seizures in the Netherlands have also declined sharply in recent years, partly due to growing efforts to stop shipments before they leave their origins. For example, the National Crime Squad arrested several men in 2008, suspected of planning to transport 2.6 tons of cocaine from a warehouse in São Paulo, Brazil, to the Netherlands. The arrests occurred before the cocaine was actually shipped to the Netherlands. In addition, the “100% control” policy in the Antilles and Schiphol airports appears to have deterred the use of air couriers. Large amounts of cocaine, however, continue to be seized by the coastguards of the Dutch Antilles and Aruba. Out of 6.8 tons seized in 2008, 4.2 tons were taken by the Dutch navy from a cargo vessel sailing under a Panamanian flag from the Bolivarian Republic of Venezuela to Europe. Another factor may be diversions to Belgium, notably the port of Antwerp.

In 2008, the second largest annual cocaine seizure total in Europe was reported, for the first time, by France. The bulk of the French cocaine seizures were made at sea, mostly close to West Africa or close to the French overseas territories in the Caribbean. The main identified transit country in 2008 was Brazil, reflecting the growing importance of cocaine production in Peru and the Plurinational State of Bolivia. The next largest transit country was the Bolivarian Republic of Venezuela. Over the 2003-08 period, 34% of the cocaine seized by the French authorities left South America via the Bolivarian Republic of Venezuela, 14% via Brazil, 5% came directly from Colombia, 6% via other South American countries, 14% left the Americas via the Caribbean and 1% via Central America. The Iberian Peninsula is still the main transit zone within Europe, followed by the Netherlands, but more direct shipments from the French Caribbean to France are gaining in importance.

**Who are the traffickers?**

Trafficking of cocaine to Europe is largely organized by Colombian organized crime groups. These groups may be motivated in part by a desire to make up for their losses in the Western Hemisphere. Colombian groups act as importers and wholesalers; their involvement in retail markets is limited to Spain. But the European markets are more complex and diverse than the North American ones, and a variety of groups are involved.

Caribbean groups are important in a number of countries, including Dominicans in Spain, Jamaicans in the United Kingdom and Antilleans in the Netherlands. Other South Americans are also prominent, especially on the Iberian peninsula. West Africans are active retailers (as well as small-scale importers) in a number of countries in continental Europe, including France, Switzerland, Austria, Italy and Germany. North Africans are prominent in countries with a Mediterranean coastline or a large North African diaspora, including Spain, Italy, France and the Netherlands. In addi-
Case studies of transnational threats

In recent years, a few groups from the Balkan region (notably from Romania, the countries of the former Yugoslavia, Albania and Turkey) have emerged as players in the European market. While there have been rumours of Mexican interest, there is little concrete evidence to suggest an active role by these groups so far.

The bulk of the trafficking towards Europe still seems to be in the hands of Colombian organized crime groups, forging alliances with various criminal groups operating in Europe. Data for Spain, Europe’s main entry point of cocaine, show that over the 2004-2007 period, between 21% and 26% of all foreigners arrested in Spain for cocaine trafficking were Colombian nationals. In 2008, the proportion rose to 29% (970 individuals, 11% of the total). The Colombian groups have traditionally cooperated closely with local organized crime groups in Galicia (northern Spain).

Cocaine-related arrest data for neighbouring Portugal show a somewhat different picture, though also reflecting the historical and cultural ties with the former colonies. Colombian traffickers do not seem to play any significant role there. The largest pro-

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### FIG. 92: COUNTRY OF NATIONALITY OF PERSONS ARRESTED IN SPAIN FOR TRAFFICKING COCAINE INTO OR WITHIN THE COUNTRY, 2008

<table>
<thead>
<tr>
<th>Country of Nationality</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>970</td>
<td>11%</td>
</tr>
<tr>
<td>Morocco</td>
<td>288</td>
<td>3%</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>249</td>
<td>3%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>151</td>
<td>2%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>113</td>
<td>1%</td>
</tr>
<tr>
<td>Romania</td>
<td>110</td>
<td>1%</td>
</tr>
<tr>
<td>Portugal</td>
<td>72</td>
<td>1%</td>
</tr>
<tr>
<td>France</td>
<td>26</td>
<td>0.3%</td>
</tr>
<tr>
<td>UK</td>
<td>37</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>1,308</td>
<td>16%</td>
</tr>
<tr>
<td>Spain</td>
<td>5,259</td>
<td>61%</td>
</tr>
</tbody>
</table>

Source: UNODC, Annual Reports Questionnaire Data

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### FIG. 93: COUNTRY OF NATIONALITY OF PERSONS ARRESTED IN PORTUGAL FOR TRAFFICKING COCAINE INTO OR WITHIN THE COUNTRY, 2008

<table>
<thead>
<tr>
<th>Country of Nationality</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Verde</td>
<td>79</td>
<td>14%</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>54</td>
<td>9%</td>
</tr>
<tr>
<td>Spain</td>
<td>40</td>
<td>7%</td>
</tr>
<tr>
<td>Brazil</td>
<td>27</td>
<td>5%</td>
</tr>
<tr>
<td>Germany</td>
<td>6</td>
<td>1%</td>
</tr>
<tr>
<td>Angola</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>80</td>
<td>14%</td>
</tr>
<tr>
<td>Portugal</td>
<td>287</td>
<td>50%</td>
</tr>
<tr>
<td>Foreigners</td>
<td>290</td>
<td>50%</td>
</tr>
</tbody>
</table>

Source: UNODC, Annual Reports Questionnaire Data
portion of non-Portuguese cocaine traffickers arrested in 2008 were from Cape Verde (27%) and Guinea-Bissau (19%) 14% and 9% of the total number or arrestees, respectively. The recent sharp decline in seizures in Portugal may be reflective of the decline in the use of these West African countries as transit areas.

In the Netherlands, people from the ‘Dutch Caribbean’ (Aruba, Netherlands Antilles and Suriname) have long been active alongside Colombian groups. The Colombian expatriate community in the Netherlands is largely from the areas around Cali and from the Antioquia region around Medellin, and in the late 1990s, was incarcerated at a rate 20 times higher than Dutch citizens.50 More recently, Nigerian groups have expanded in Amsterdam, largely working through air couriers flying from the Netherlands Antilles and Suriname. With improved controls on direct flights, they are increasingly using other transit countries such as the Dominican Republic, Peru and Mexico.51 Improved controls in the port of Rotterdam (Netherlands) have also displaced some of the traffic to the neighbouring port of Antwerp (Belgium), still controlled by Colombian groups,52 though Albanian groups, working at the port facilities, also seem to play a role. In contrast to cocaine trafficking to Spain, where the ‘mother ship’ approach is used to unload shipments onto smaller local craft at sea, the cocaine destined for the Netherlands is typically transported alongside legal merchandise.

Cocaine trafficking operations in the UK are dominated by local British criminals, importing from the Iberian peninsula and, to a lesser extent, from the Netherlands. UK authorities estimate that some 75% of the cocaine transited continental Europe before reaching the UK53. Attempts to organize direct shipments from South America to the UK or Ireland are being made as well, as British traffickers increasingly attempt to source cocaine further upstream.54 Direct shipments of cocaine by organized Colombian groups, in contrast, are rather the exception. The UK is one of the few EU countries that has a problem with crack cocaine, mostly dealt by British nationals of West Indian descent.55 Most of the cocaine from the Caribbean (notably from Jamaica) is trafficked by air into the UK, often by using female mules, though this has declined in recent years. West African groups (mainly Nigerians, Ghanaians and British nationals of West African descent) are increasingly involved in shipping cocaine via West Africa to the UK.56

The Italian drug scene involves Colombian, Dominican and other Latin American trafficking groups working with domestic Italian organized crime groups, in particular the Calabrian N’drangheta, largely using containerized shipments.57 As of 2007, the Camorra, located in Naples, was reported to have begun trafficking cocaine to Italy from Spain, as well as directly from South America. And more recently still, the Sicilian Mafia has got involved, getting support from the ‘Ndrangheta and the Camorra to bring cocaine into the areas it controls.58 West African and North African groups are also active in retailing and small-scale import, as well as groups from the Balkans, in particular Albanians and Serbs.
France has not had a large cocaine problem in the past, though this has started to change in recent years, partly due to the growing importance of West Africa as a cocaine transit location. When West Africa became a more prominent transit area after 2004, West African traffickers also became more prominent in France. Nigerian nationals became the top nationality among foreign cocaine traffickers, comprising a third of all arrests among foreign traffickers in 2006. Other important players come from Europe and North Africa.

The German authorities divide trafficking into ‘sales’ and ‘import’ offences. In 2008, the German authorities arrested 4,325 persons for cocaine sales and 605 persons for cocaine import. The proportion of non-German citizens in cocaine sales was 48%, but 63% for cocaine import offences. Analysis of participants in organized crime groups revealed that more than one fifth (22% in 2008) of German passport holders in organized crime groups were not born in Germany. Thus data suggest that trafficking of cocaine in Germany is primarily conducted by persons not born in Germany.

The single largest group of foreigners arrested for cocaine sales were Turkish (450 persons or 22% of all foreign cocaine traffickers). The proportion was smaller than for heroin, but surprising given the fact that dealing in cocaine is a relatively new activ-
ity for these groups. The second largest nationality was Italian (142 persons or 7% of all foreign cocaine traffickers) many of whom were associated with the ‘Ndrangheta and other Italian mafia groups.62

Those arrested for cocaine import comprise a smaller and more varied group, with the top foreign nationalities being Dutch (48 persons or 13% of all foreign importers) and Turkish (10%, typically acquiring the cocaine from the Netherlands).63 Nigerian and Italian individuals also feature prominently.

How big is the flow?

While there are good data on the number of cocaine users in Europe, much less is known about how much they consume annually. Using four different estimation methods,64 average per user consumption rates of between 25 and 35 grams can be derived. Multiplying these averages by the number of users yields a cocaine consumption level between 101 and 144 tons per annum for the EU and EFTA countries. The average of the four results was calculated as UNODC’s ‘best estimate,’ showing an increase in the amounts of cocaine used from 63 tons in 1998 to 124 tons in 2008. The European cocaine market thus doubled in volume over the
Case studies of transnational threats

As volumes have rapidly increased, prices have declined. Retail cocaine prices, at street purity, expressed in constant 2008 euros,66 declined from, on average, €143 in 1990 to €91 per gram in 2000 and to €70 per gram in 2008. Expressed in constant 2008 US dollars,67 cocaine prices declined over the 1990-2000 period but increased over the 2000-2008 period, from $88 to $102 (as the US dollar depreciated against the euro). Most of this increase took place over the 2006-08 period. Wholesale prices followed a similar trend.

Cocaine prices fell in parallel with falling purity levels.68 Taking purity into account, retail cocaine prices, expressed in constant 2008 euros, appear to have remained basically stable over the 1998-2008 period (€183 per pure gram in 1998, €189 per pure gram in 2008).69 The same is true for purity-adjusted wholesale prices in euros. Both retail and wholesale prices, expressed in constant US dollars, however, showed a marked upward trend over the 1998-2008 period.70

Given the significant changes in exchange rates in recent years, Colombian drug traffickers were reported to increasingly favour transactions in euros.

Sources: UNODC, World Drug Report 2009 (and previous years) and UNODC, Annual Reports Questionnaire Data
rather than in US dollars, the main transaction currency in the past. The large euro notes (€500) also seem to have been contributing to its rising popularity. Transactions of Colombian drug trafficking groups with counterparts in Mexico and the USA, however, continue to take place in US dollars.

Multiplying the amounts of cocaine consumed with the purity-adjusted retail prices show an increase of the EU/EFTA cocaine market from US$14 billion in 1998 to US$34 billion in 2008, about the same size as the cocaine market in the USA (US$35 billion).

How much cocaine must leave South America to meet this demand? After deducting purity-adjusted seizures, the shipments of cocaine from the Andean region appear to have risen from 110 tons in 1998 to almost 250 tons in 2006 (range: 231–268 tons) before falling to 212 tons in 2008. Expressed as a percentage of global cocaine production, the shipments from the Andean region towards the EU/EFTA countries increased from 13% of Andean cocaine production in 1998 to 25% in 2008.

Using a similar analysis as was applied in the US example, it appears that less than 1% of the cocaine sales in Europe goes to the Andean coca farmers. Another 1% goes to the traffickers within the Andean region. The international traffickers who ship the cocaine from the Andean region to the main entry points (notably Spain) obtain 25% of the final sales value. A further 17% is generated in shipping the cocaine from the entry points to the wholesalers in the final destination countries across Europe. The largest income is generated in the destination countries, between the wholesaler and the consumer, generating more than 56% of the total. As there are far more dealers at the national level, the per capita income of the dealers at the national level is in Europe (like in North America) lower than among the smaller group of internationally operating cocaine dealers.

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**FIG. 101:** SIZE OF THE EU/EFTA COCAINE MARKET IN BILLIONS OF CONSTANT 2008 US$  

<table>
<thead>
<tr>
<th>Year</th>
<th>Cocaine sales in bn US$ ('best estimate')</th>
<th>Cocaine sales in bn US$ based on ONDCP model</th>
<th>Cocaine sales in bn US$ based on multicity study results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>16.4</td>
<td>13.8</td>
<td>12.7</td>
</tr>
<tr>
<td>1999</td>
<td>16.5</td>
<td>14.2</td>
<td>12.4</td>
</tr>
<tr>
<td>2000</td>
<td>16.4</td>
<td>14.1</td>
<td>12.3</td>
</tr>
<tr>
<td>2001</td>
<td>16.4</td>
<td>15.5</td>
<td>15.5</td>
</tr>
<tr>
<td>2002</td>
<td>17.5</td>
<td>17.8</td>
<td>17.8</td>
</tr>
<tr>
<td>2003</td>
<td>20.4</td>
<td>20.5</td>
<td>18.4</td>
</tr>
<tr>
<td>2004</td>
<td>21.3</td>
<td>24.5</td>
<td>25.7</td>
</tr>
<tr>
<td>2005</td>
<td>22.4</td>
<td>29.7</td>
<td>29.9</td>
</tr>
<tr>
<td>2006</td>
<td>22.4</td>
<td>31.0</td>
<td>31.1</td>
</tr>
<tr>
<td>2007</td>
<td>23.4</td>
<td>31.0</td>
<td>30.8</td>
</tr>
<tr>
<td>2008</td>
<td>25.4</td>
<td>34.7</td>
<td>33.8</td>
</tr>
</tbody>
</table>

Sources: Multiple sources

**FIG. 102:** 'VALUE-ADDED' OF COCAINE SALES AMONG THE EU/EFTA COUNTRIES, BILLION US$, 2008  

- **Wholesale to end-users in EU/EFTA, US$19.2 bn, 56%**
- **International traffickers: from Andean countries to point of entry in Europe, US$0.2 bn, 1%**
- **International traffickers: from Andean countries to point of entry in Europe to rest of EU/EFTA, US$5.8 bn, 17%**
- **Traffickers from point of entry into Europe to rest of EU/EFTA, US$8.3 bn, 25%**
- **Andean farmers, US$0.3 bn, 1%**

Sources: Multiple sources

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IMPLICATIONS FOR RESPONSE

The cocaine market, particularly the flow to the United States, is one of the best documented organized crime problems. It also appears to be a market in decline. What can be learned from this example?

First, organized crime markets do not necessarily expand indefinitely. At its peak in the mid-1980s, about one in seven 12th grade students in the United States had used cocaine in the previous year; the figure is about one in 20 today. There may be many reasons for this decline, but prevention and treatment programmes surely played a role. Not all prevention programmes are equal, of course, and some of those evaluated in the United States were found to be worse than useless, but drugs move in and out of fashion, and intelligent interventions can promote declines in demand. Treatment is expensive and rarely works the first time around, but it remains cheaper and more effective than incarceration.

Second, law enforcement can have a big impact on criminal markets, but needs to be applied strategically or it can have perverse effects. For example, breaking the big cocaine cartels led to the emergence of a number of smaller criminal groups. Competition between these groups pushed down the price, encouraging higher levels of use. Of course, the big cartels had become a serious threat to the stability of Colombia, and they had to go, but intervention at any point in an international criminal market will have repercussions throughout the chain, and these need to be monitored and addressed.

It is also true that interdiction efforts can push cocaine trafficking routes into areas even more vulnerable to disruption than the original transit zone. This is the story of West Africa between 2004 and 2008. International attention was brought to this detour quickly enough, however, that potential disaster appears to have been averted. Similarly, in the mid-1990s, law enforcement efforts to end the large-scale air trafficking of coca paste or cocaine base between Peru and Colombia caused coca leaf prices to fall in Peru, and farmers turned to other crops. Over time, unfortunately, this appears to have encouraged both coca cultivation in Colombia and cocaine processing in Peru, with a subsequent resurgence in Peruvian cultivation. More broadly, declines in the US market may have prompted the growth of the European and South American markets.

All this underscores the need for a global strategy to deal with the cocaine problem, one that coordinates supply- and demand-side measures (as well as more innovative approaches) across a range of countries and monitors for any side effects. Member States clearly recognized this fact in their Political Declaration of March 2009, stressing that “the world drug problem remains a common and shared responsibility that requires effective and increased international cooperation and demands an integrated, multidisciplinary, mutually reinforcing and balanced approach to supply and demand reduction strategies.” What is still needed, however, is to translate this widely accepted ‘declaration of intent’ into practical action that can lead to tangible results.