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Crime and Ammunition Procurement: The Case of Brazil Pablo Dreyfus

Introduction: weak states, organized crime, and patterns of ammunition procurement

Unlike common criminality such as burglary, armed robbery and kidnapping for ransom, organized crime is associated with the production and distribution of illegal goods and services such as drugs, illegal gambling, and prostitution as well as extortion linked to the control of services such as gas, electricity, and water¹. In order to achieve their aims, criminal groups use violent means and resort to the corruption of officials. Criminal organizations not only penetrate the institutional structures of the state, but also challenge the state by exerting territorial control by the use of armed force. The extent of this territorial control, as well as the degree of penetration and corruption of state institutions by criminal organizations, however, depends on the strength of the state in terms of its level of socio-political cohesion, territorial centrality,² socio-economic development, and policy capacity.³ A country where there is widespread corruption, a lack of institutional legitimacy, a high degree of inequality, a fragmented society, and inefficient or ineffective security forces is less capable of containing, repressing, and controlling criminal organizations (Dreyfus, 2002).

On a 'weak state–strong state continuum',⁴ countries that are closer to the 'weak' pole are more susceptible to criminal organizations with the capacity to challenge the state's monopoly on the legitimate use of force, and which acquire firearms in order to maintain territorial and market control. Lucrative markets, however, generate competition and in the illegal side of the economy such competition is often characterized by violence (Dreyfus, 2002). In the

absence of strong institutions capable of enforcing the rule of law there is no ‘peacekeeper’ or even ‘peace enforcer’ and this vacuum can lead to an escalation of armed violence between rival organizations. In such a setting the procurement of ammunition becomes vital to sustain this escalation.⁵ This is the case, for example, in certain areas of Brazil, Colombia, Nigeria, and the Philippines where organized armed groups involved in illicit activities control territory and engage in armed confrontation not only with the state security forces but also with rival organizations (Dowdney, 2005).

In weak states criminal organizations take advantage of legal loopholes and institutional flaws in order to procure ammunition through the internal and external flows or procurement routes listed in Table 1.⁶

While similar methods are used by organized crime in stronger states such as Italy and the United States, for instance, in weak states widespread corruption, lack of control by the central state, and weak law enforcement structures increase the magnitude of the problem. In this situation, criminal organizations purchase arms and ammunition with the logic of irregular armies, that is, purchasing large job lots through illicit channels in order to be able to defend their (rural or urban) territorial base and their markets (Naylor, 2002).

Brazil is treated in this chapter as a paradigmatic case of a weak state facing the problem of heavily armed criminal organizations that control urban territories and have the capacity to match and challenge the state’s security agencies.

Table 1
Internal and external ammunition procurement flows

Internal flows	External flows
<ul style="list-style-type: none"> • Diversion (via theft or corruption) from military and police inventories⁷ • Diversion from private security companies and gun shops • Purchase in gun shops by taking advantage of weak or non-existent controls (particularly for small calibre ammunition) • Illicit sales from ammunition factories and shops • Ammunition stolen from individuals in burglaries (particularly for small calibre ammunition) 	<ul style="list-style-type: none"> • International trafficking networks • Smuggling of ammunition purchased in neighbouring countries due to legal loopholes as well as weak law enforcement and border controls

After the United States, Brazil is the second largest producer of small arms and light weapons and related ammunition in the western hemisphere. It also has one of the highest small arms-related death rates in the world (Dreyfus, Lessing, and Purcena, 2005; Phebo, 2005). This chapter shows how Brazilian-made ammunition feeds the cycle of criminal violence in some of the country's major cities and is used by criminal and armed non-state groups in the region. It also analyses the effectiveness and possible outcomes of recently enacted Brazilian firearms legislation that *inter alia* established ammunition marking measures, which have been in force since July 2005.

Most of the examples used in this chapter are from Rio de Janeiro. Crime in Rio de Janeiro is significant because its particular feature is a strong territorialization. Drug trafficking factions compete for armed control over enormous favelas (poor informal settlements) and this provokes violent competition for control of strategic points for the sale of, in particular, cocaine and marijuana.

Assessing the problem

According to national data for 2002,⁸ 38,088 people were killed using firearms in Brazil in that year and 90 per cent of these deaths were homicides. Of the country's homicides, 63.9 per cent were committed using firearms. In the same year firearm death rates were 21.8 per 100,000 inhabitants, and the average firearm-related homicide rate in Brazil's state capitals was 29.6 per 100,000 inhabitants (Phebo, 2005, pp. 15–21).

This small arms-related violence is linked to weapons misuse and to crime stimulated by drug trafficking, and rooted in social inequality in densely populated urban areas (Fernandes, 1998; Cano and Santos, 2001). The central-west region of the country, where the agricultural frontier is still being extended through land purchases and deforestation, is close to the borders of drug-producing countries and firearm mortality has increased by 57 per cent in the past 20 years. In the south-east part of the country, which contains large urban centres heavily affected by drug trafficking—predominantly state capitals and their metropolitan areas⁹—this rate increased by 54.1 per cent over the same period (Phebo, 2005, p. 19). Small arms-related violence in Brazil is mainly an urban problem. The highest average death rates from firearms are concentrated

in cities with more than 100,000 inhabitants, all of which went through rapid and disorganized urbanization processes (ISER, 2005).

Although unaffected by internal or international armed conflict, Brazil is one of the most violent places in the world. It is plagued by organized crime, urban interpersonal violence, and police brutality, corruption, and abuse of lethal force. The number of civilians killed by the police in Rio de Janeiro and São Paulo in 2003, for example, was 1195 and 868 persons, respectively (Carvalho, 2004, p. 41).

Brazil is a regional cocaine and marijuana consumption centre. It shares long and porous borders with Colombia, a cocaine producing country involved in a serious and protracted internal armed conflict; Peru and Bolivia, two cocaine producing countries with serious organized crime problems; and Paraguay, a marijuana producing country and a trans-shipment platform for all kinds of goods—including firearms—that is plagued by institutional corruption and the lack of a state presence in its border areas (Dreyfus, 2002; Dreyfus et al., 2003).

To this worrying scenario is added the fact (outlined above) that Brazil is the second largest producer and exporter of small arms and ammunition in the western hemisphere. Brazil is the home of the two largest producers of small arms and ammunition in Latin America—Forjas Taurus (Taurus) and the Companhia Brasileira de Cartuchos (CBC). The state-owned Indústria de Material Bélico do Brasil (IMBEL) produces assault rifles for the Brazilian armed forces and some police agencies and exports most of its production of pistols. Taurus has an almost complete monopoly position in the domestic civilian and police small arms market. CBC, in turn, monopolizes the national small arms ammunition market (apart from the market for hand grenades) with products ranging from the .22 long rifle ammunition to .50-ammunition for heavy machine guns (12.7 mm). The production of and trade in small arms and ammunition in Brazil is monitored by the army. Since 1934 it has enacted regulatory decrees that heavily protect Brazilian industry by restricting the importation of these goods. However, in the past two decades, the lack of efficient regulation of this lucrative and expanding industry has allowed the growth of an impressive grey and illegal regional market for small arms and ammunition.¹⁰

As the studies below show, Brazilian ammunition and guns are legally shipped to neighbouring countries (notably Paraguay in the 1990s) and then smuggled



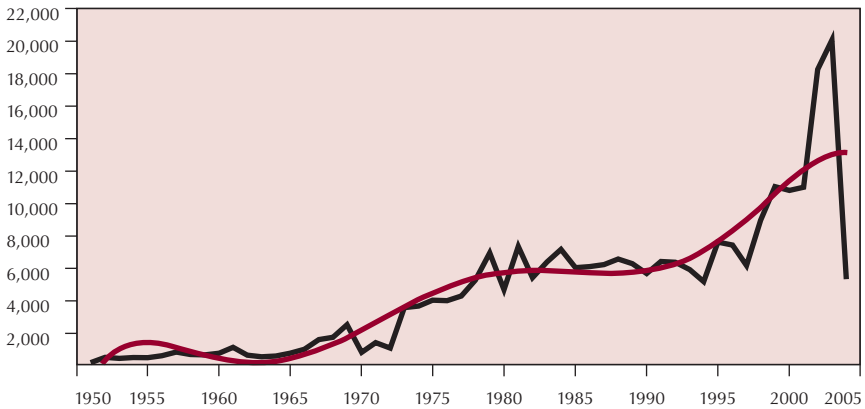
Seized ammunition stockpiled at the vault of the Division of Control of Arms and Explosives (DFAE) of Rio de Janeiro's Civilian Police. © Kita Pedroza/Viva Rio

into other countries or back to violent urban centres in Brazil. The result was an explosive cocktail: a prosperous and inadequately regulated ammunition industry in a violent country (Dreyfus, Lessing, and Purcena, 2005). For example, in 2002 alone, 37,418 small arms were seized in the state of São Paulo,¹¹ and 18,056 small arms were seized in the state of Rio de Janeiro.¹² In both cases, more than 70 per cent of the weapons were made in Brazil. Small arms seized in police operations in Brazil are predominantly Brazilian-made handguns—mainly revolvers (Dreyfus and de Sousa Nascimento, 2005; Rivero, 2005). Some Brazilian states with a strong presence of criminal organizations have witnessed an increasing trend of seizures of foreign-made assault weapons and high-calibre semi-automatic pistols in the past decade (Dreyfus and de Sousa Nascimento, 2005; Rivero, 2005).

The metropolitan area of Rio de Janeiro witnessed a drastic rise in the seizure of weapons in the 1990s (see Graph 1), which coincides with the rise in cocaine

Graph 1

Small arms seized by police in the state of Rio de Janeiro (1951–July 2004)



Source: Rio de Janeiro civilian police, Control of Arms and Explosives Division (Divisão de Fiscalização de Armas e Explosivos, DFAE)

trafficking in that city. Although assault weapons were just 3 per cent of the total number of arms seized in the past decade, these kinds of high power small arms have been increasingly procured and used by rival drug trafficking factions in the densely populated favelas located in the northern and western parts of the city (Rivero, 2005). Assault weapons in the hands of criminal groups in Rio de Janeiro have a qualitative rather than a quantitative importance linked to their firepower and potential to cause damage, and their symbolic significance vis-à-vis rivals and the police (Dowdney, 2003; Rivero, 2005).

According to Delegate Carlos Antônio Luiz de Oliveira, Chief of the Firearms enforcement unit (Delegacia de Repressão de Armas e Explosivos, DRAE) of the civilian police in Rio de Janeiro¹³, small arms trafficking has been decreasing in Brazil since the late 1990s.¹⁴ This is linked to several factors such as stricter laws concerning the illicit carrying, possession, and trade of small arms as well as improvements in law enforcement and intelligence capabilities.¹⁵ Most of the organizations that specialized in trafficking arms from border areas to the major Brazilian cities were disbanded during that period. In addition, the United States suspended small arms exports to Paraguay in 1998, a move followed by Brazil in 2000; Paraguay itself adopted stricter trade controls on foreign-made and

domestically produced small arms in 1999. These factors may also have contributed to reducing the flow of legally exported weapons that were then illicitly diverted to criminal organizations in the region—most often back to Brazil (Dreyfus et al., 2003; Dreyfus, Lessing, and Purcena, 2005).¹⁶

Weapons, however, are useless without ammunition and while small arms, with adequate maintenance, are durable goods, ammunition is normally a single use commodity that could also be described as a perishable good. According to Delegate Oliveira, the main problem in Brazil today, and specifically in Rio de Janeiro, is ammunition trafficking rather than trafficking in small arms. In spite of the stricter controls on imports outlined above, an average of more than 14,000 small arms were seized annually in Rio de Janeiro between 1999 and 2003.¹⁷ This statistic demonstrates that the enormous inflow of weapons in the 1990s created a stockpile that criminals are still able to draw on without any immediate need for replacements. Recent research estimates put criminal holdings in Brazil at around 4 million weapons (Dreyfus and de Sousa Nascimento, 2005). According to Delegate Oliveira, police officers in their operations against drug trafficking factions encounter fewer brand new weapons but large quantities of new ammunition of all calibres, makes, and countries of origin. Seized ammunition is, however, still predominately manufactured by CBC.¹⁸

The ability to obtain ammunition is a crucial factor in enabling drug trafficking organizations to remain in business, expand, and maintain territorial control in the favelas, which is all done using armed force (Lessing, 2005; Rivero, 2005).¹⁹ According to Delegate Oliveira, DRAE agents seize more than 5,000 rounds of ammunition in each operation. Rounds are generally loose, of mixed makes and, when found in their original packages, it is common to find that bar codes or lot numbers have been erased or destroyed in order to make tracing difficult.²⁰ According to the same source, between 2002 and 2004 the DRAE seized a total of 442,000 rounds of ammunition of various calibres.²¹ Although in the 1990s the drug factions in Rio de Janeiro and São Paulo were heavily dependent on professional small arms traffickers for their supplies of ammunition, today drug traffickers negotiate directly with arms and ammunition suppliers (the deals are closed in places such as São Paulo and Ciudad del Este, Paraguay) and then send their own transport to smuggle weapons and ammunition from Paraguay to Rio de Janeiro or São Paulo.²² This change is partly because

most major arms traffickers were arrested in late 2002 and 2003 well-coordinated operations by the federal police and state-level police corps. So far there is no evidence of cooperation between organized crime groups in Rio de Janeiro and São Paulo over joint purchases or transportation of ammunition.²³

In Brazil, various classes of ammunition have been designated 'restricted use ammunition' that can only be used, purchased, or in the possession of the armed forces, the police, small arms collectors (who can only store disabled ammunition), and registered sport shooters and hunters.²⁴ This kind of ammunition cannot be sold in gun shops and can only be purchased directly from the factory with an authorization from the Brazilian Army Directorate of Controlled Products (Diretoria de Fiscalização de Productos Controlados, DFPC) (Presidência da República do Brasil, 2000, articles 16, 17, Chapter VIII and Chapter IX of Title V; Presidência da República do Brasil, 2004, article 19).²⁵

Ammunition for civilian use is defined by the same legislation as 'permitted use ammunition' and can only be purchased on presentation by the purchaser of their registration certificate for a small arm of the same calibre and their identity card.²⁶ The police, however, seize hundreds of thousands of both kinds of ammunition every year. The Viva Rio and Institute for Religious Studies (Instituto de Estudos da Religião, ISER) small arms project has identified a number of patterns to the internal and external routes used to divert ammunition to criminal markets. In all cases, ammunition follows the same routes and methods as those used for small arms trafficking. These routes and methods are summarized in Table 2.

According to law enforcement sources, shipments of ammunition to criminal organizations in Rio de Janeiro are made to order (i.e. to an identified purchaser) because of the risks and costs involved in such operations (it is a drive of at least 2,000 km from the border with Paraguay to the south-west coast of Brazil). This kind of traffic is rarely of the 'ant trade' variety (i.e. little by little in small quantities). Carriers usually transport not fewer than 5,000 rounds hidden in secret compartments in cars or trucks.²⁷ The modus operandi is different when it comes to diversion from the armed forces or the police. In these cases it is a network of corrupt officials that diverts boxes of ammunition little by little (three to five boxes containing 20 to 50 rounds each time). Other officials, usually retired, collect and stockpile the diverted ammunition and then distribute

Table 2

The most common types of illicit ammunition transfers from Brazil

Type of illicit transfer	Origin	Type of ammunition	Remark
Cross-border smuggling	Previous Brazilian exports to neighbouring countries sharing land borders with Brazil, particularly Paraguay	All types of ammunition	This ammunition goes back to Brazil or to insurgent groups in Colombia (mainly Fuerzas Armadas Revolucionarias de Colombia, FARC)
Transnational illicit channels mainly run by criminal organizations based in Ciudad del Este (Paraguay) and by corrupt military and police organizations in neighbouring countries	Neighbouring countries and other regions of the world	All types of ammunition, restricted use ammunition, as well as hand grenades	This ammunition is smuggled into Paraguay and then diverted to neighbouring countries
Corruption and theft	Police and military holdings	Police and military ammunition of all types, as well as hand grenades	In April 2004 the Brazilian Army officially acknowledged that, between 1995 and 2004, 178 small arms and 7,788 rounds of ammunition had been diverted from army bases and that 117 weapons and 5,555 rounds had been recaptured from criminals
Diversion and theft	Private security companies	Particularly for civilian use ammunition and 12 gauge shells	
Illicit sales	Ammunition factories and gun shops in Brazil	All types of ammunition	
Robbery/theft	Individuals in Brazil	Particularly permitted use ammunition	

Sources: Delegacia Legal (2005); Dreyfus (2005); Dreyfus et al. (2003); GEDES (2004); McDermott (2004)

it to purchasers in criminal organizations.²⁸ These methods of ammunition procurement and illicit trade are illustrated in the section below by a number of case studies.

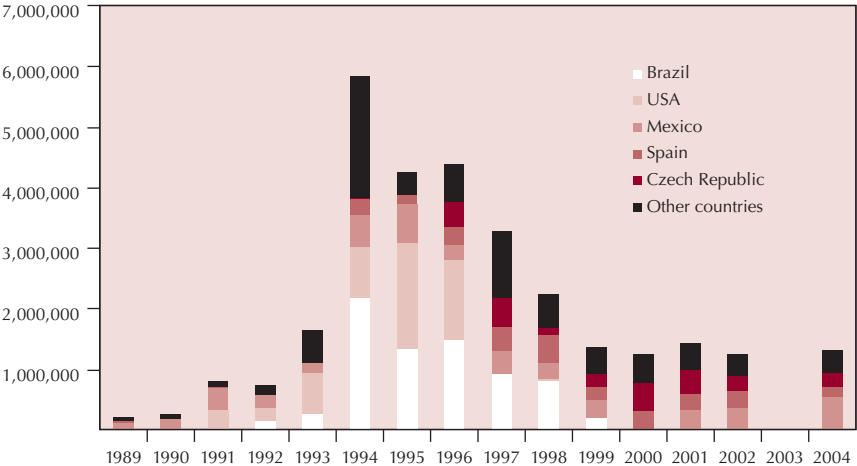
Patterns of ammunition procurement by criminals: some case studies

Case 1: a round trip to Paraguay²⁹

On 2 August 2002, after a two-month long police investigation, agents of the Political and Social Order Division (DELOPES) of the Brazilian Federal Police seized 50,000 rounds of ammunition in different parts of the city of Rio de Janeiro. The ammunition had, according to police sources, been delivered to several criminal groups based in city's favelas. Among the people arrested in the operation were two retired Brazilian army non-commissioned officers who had served in a military unit near Foz de Iguaçu, a city located in the tri-border area joining Argentina, Brazil, and Paraguay. The police seized 7.62 mm, 9 mm, 5.56 mm, .40, and .30 rounds manufactured in the Czech Republic and by CBC in Brazil. Most of the 7.62 mm rounds were manufactured by CBC. Before 2003 ammunition manufacturers were not obliged by law to include lot numbers on the ammunition headstamps (i.e. the information engraved on the cartridge case). They would, however, write the lot numbers on the packages containing the rounds. Since the CBC bullets were still in their original packages with the lot numbers, the police could identify that these rounds belonged to lot number LT 547.4-Trim/POL K N-135 L 479/81, which had been exported to Paraguay by CBC. Identifying the lot number on the boxes was key to tracing the trafficking route back to Paraguay and thus concentrating police efforts on blocking that route (Costa, 2002; Borges, 2002).

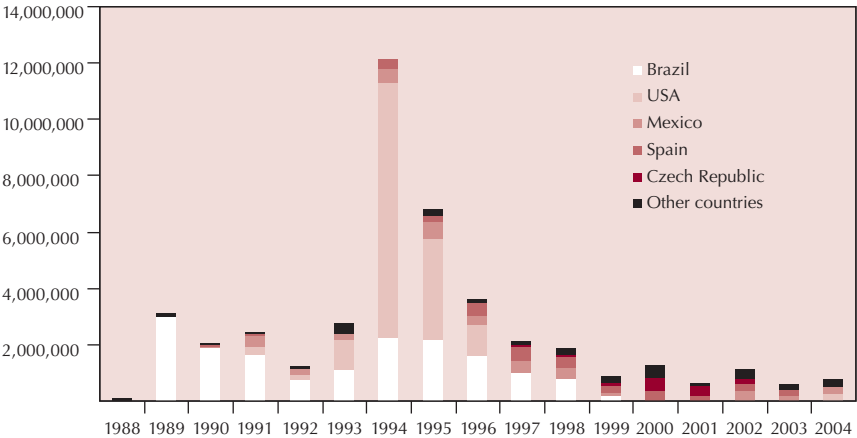
Paraguay has one of the lowest per capita incomes in the region and a small population of 5 million. The country is not at war and does not register high rates of firearm-related deaths. In the mid 1990s, the amount of small arms and ammunition imported by Paraguay far exceeded the country's needs, offering further evidence of the leakage of small arms from the lawful to the illicit market. Until 2002 Paraguayan legislation allowed the purchase of handguns by foreign tourists; most gun shops are located in cities along the border with Brazil. In

Graph 2
Paraguay: volume of ammunition imports, 1989–2004 (USD)



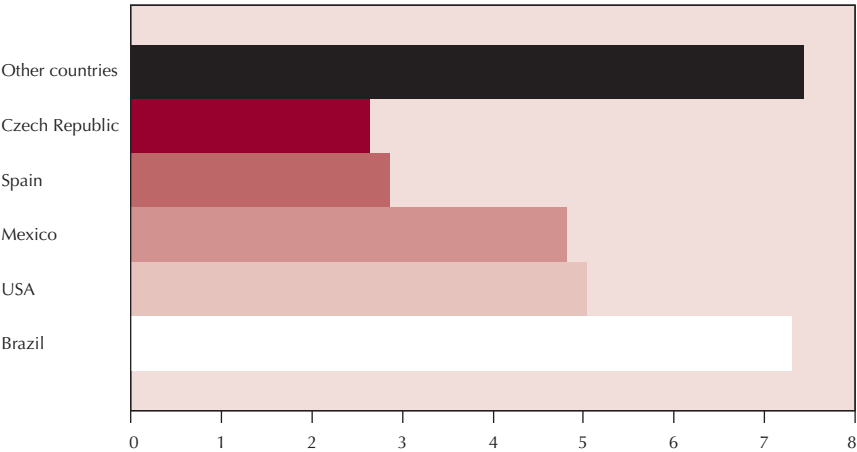
Note: All figures in current USD. Includes customs codes 930621 (shotgun cartridges) and 930630 (small arms ammunition)
Source: UN COMTRADE, Analysis: Viva Rio/ISER

Graph 3
Exports of ammunition to Paraguay, 1989–2004 (USD)



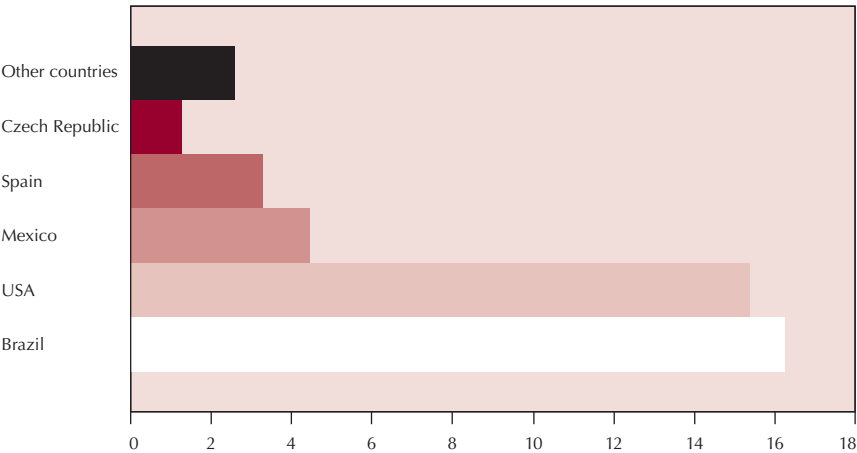
Note: All figures in current USD. Includes customs codes 930621 (shotgun cartridges) and 930630 (small arms ammunition)
Source: UN COMTRADE, Analysis: Viva Rio/ISER

Graph 4¹⁰
Paraguay: imports of ammunition by exporter, 1989–2004 (USD million)



Note: all figures are in constant (2004) USD
Source: UN COMTRADE, Analysis: Viva Rio/ISER

Graph 5
Exports of ammunition to Paraguay, 1989–2004 (USD million)



Note: all figures are in constant (2004) USD
Source: UN COMTRADE, Analysis: Viva Rio/ISER

2002, after heavy pressure from the Brazilian government and civil society, Paraguay repealed the decree allowing foreign tourists to buy small arms and ammunition, a route that had been used extensively by Brazilian criminals (Dreyfus et al., 2003; Dreyfus, Lessing, and Purcena, 2005). In 2004 the Paraguayan government enacted a decree that specifically forbids tourists and foreign nationals from buying small arms and ammunition in Paraguay (Presidencia de la República del Paraguay, 2004, article 31).

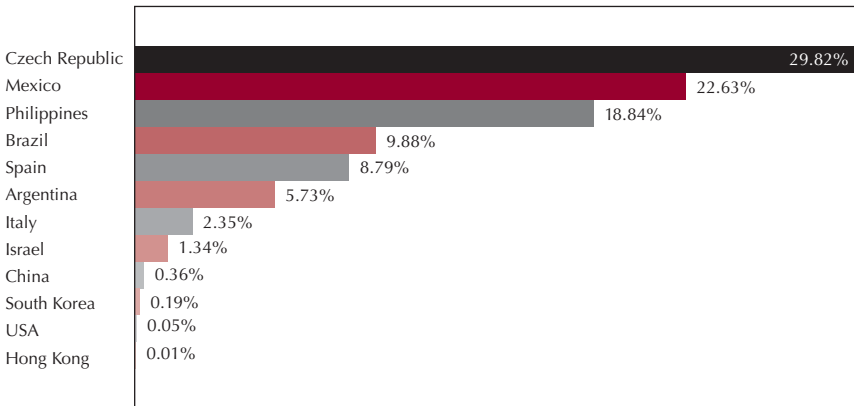
Diplomatic pressure also led Paraguay in late 2000 to declare a three-year moratorium on the import of Brazilian-made small arms and ammunition. Paraguayan authorities also decided that their country should not import more than it required for its domestic market (Dreyfus et al., 2003; Iooty Dias, 2004). Graphs 2–5 show that Paraguay has made clear efforts to address the issue of grey ammunition markets on its territory. Imports considerably decreased in the current decade—especially those from Brazil.

Although Graphs 1–5 reveal a difference in values for imports reported by Paraguay to the United Nations Commodity Trade Statistics Database (UN Comtrade) and the exports reported by its trading partners, the top five exporters (Brazil, the United States, Mexico, the Czech Republic, and Spain) are the same in both cases and the drop in exports and imports is reflected in both sets of data. It is notable that the United States suspended exports to Paraguay in 1996 on the grounds that export licence applications exceeded reasonable estimates of domestic need in that country (US State Department, 2000). The US government argued in 1996 that weapons exported to Paraguay were being diverted to criminals in Brazil (de Barros Lisboa, Fernandes, and Stubert Aymore, 2001, p. 10). Brazil also suspended exports for the same reason after the moratorium mentioned above.³¹ Paraguay imported 153.5 million rounds of ammunition between 1997 and 2003, however, and it is not surprising that surplus stocks were still being smuggled into Brazil in 2004.³² Graph 6 gives a breakdown of these imports by exporting country.

While grey markets may have declined in importance, entirely underground small arms trafficking networks remain a major problem in Ciudad del Este in the tri-border area (see Map 1) (Dreyfus et al., 2003; McDermott, 2004). In 2002, federal and Rio de Janeiro police investigations detected a diversion route for 7.62 x 39 mm Wolf ammunition produced in Russia, legally imported

Graph 6

Volume of ammunition imports into Paraguay (percentage of units or cartridges) by exporter, 1997–2003



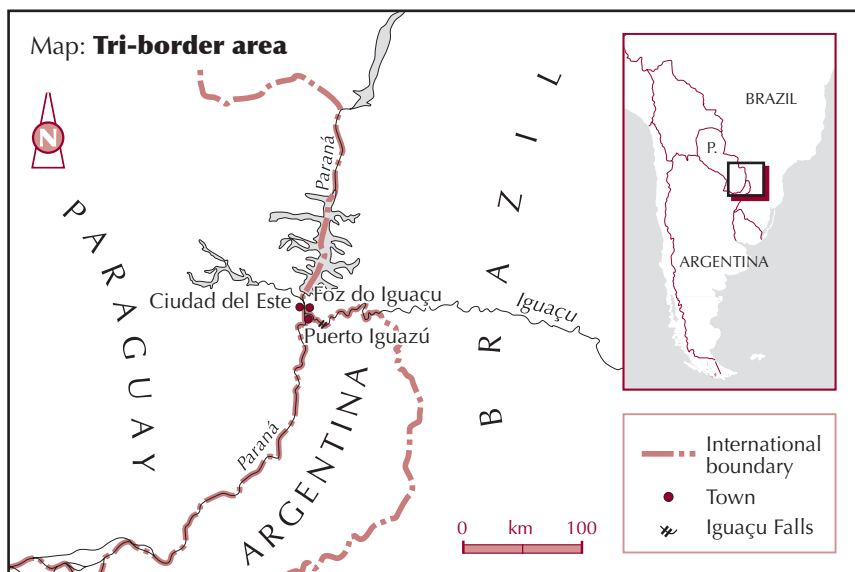
Source: OCIT Trade, Asunción, Paraguay. Analysis: Viva Rio/ISER

by a firm in Argentina and then trafficked to Rio de Janeiro through the tri-border area (Werneck, 2002, p. 15).

There is also evidence to suggest that the region was used as a trafficking route for Argentine-made GME-FMK-2-MO hand grenades used by drug traffickers in Rio de Janeiro and allegedly diverted from Argentine military stockpiles³⁴. Another disquieting issue is the fact that, even if the importance of Paraguay as an ammunition trans-shipment point diminishes, the problem can shift to other countries in the region that have lax small arms laws and poorly controlled borders. One likely candidate is Bolivia, a country even poorer than Paraguay with no small arms control laws (apart from vague ministerial resolutions), problems with corruption in law enforcement agencies, and a virtually unpatrolled border with Brazil.

Case 2: crime arsenals

On 20 April 2004 a team from the civilian police in Rio de Janeiro raided an illegal arms cache located in the favela of Coréia in the western part of the city. They were astonished to find 18,350 rounds of ammunition of various calibres,³⁵



161 hand grenades (M-20 riot control and M-3 fragmentation grenades), and eight M-409 anti-personnel mines. According to the police, the cache belonged to Robinho Pinga, a trafficker and member of the criminal faction Terceiro Comando.³⁶ Both the grenades and the mines were engraved with lot numbers,³⁷ which allowed the DRAE agents to begin an investigation in order to identify the point of diversion of these military weapons. The grenades were traced back to their manufacturer—the Brazilian company RJC Defesa Aeroespacial based in Lorena in the state of São Paulo. RJC’s owner declared that lots CEV-4-11-96 and RJC 669-98, to which the grenades belonged, had been sold as complete lots in 1996 and 1998 to the Directorate of War Material at the Brazilian Air Force (based in Rio de Janeiro) and to the Brazilian Aeronautic Commission (based in São Paulo), respectively. The mines belonged to lot 1-35 manufactured by Poudres Réunies de Belgique (PRB) in Belgium, a company which is no longer trading. According to the Brazilian Ministry of Defence, the army still retains 5,497 M-409 mines from this particular lot for training purposes. It is not clear, however, if the entire lot was sold by PRB to the Brazilian Army.³⁸

The remaining 18,350 rounds of small arms ammunition found in the cache were, according to the Director of the DRAE, manufactured by CBC. Since most

of this ammunition had been unpacked and since lot numbers were not marked on the headstamps, it was not possible to find out if the ammunition was diverted from a military or a police unit.³⁹ The fact that the ammunition was found with the mines and the grenades would, however, point in the direction of either the army or the air force as a possible procurement source. Both the Brazilian Air Force and the Brazilian Army deny that the hand grenades and mines were diverted from their stockpiles but the lot numbers and the testimony of one of the manufacturers seem to contradict this denial.⁴⁰

Ammunition diversion from the Brazilian Armed Forces and law enforcement agencies is linked to a number of factors. A total of 71,944 troops from the three armed services are stationed in the state of Rio de Janeiro.⁴¹ Most of these military units (as well as their arsenals) are based inside the city limits of Rio de Janeiro—sometimes near the most violent favelas. Every year, 18-year old men living in these slums are conscripted to serve in the neighbouring military units. For example, most of the air force logistical and materiel bases are in Rio, as are most of the small arms belonging to the air force infantry that guards these bases. The elite force of the marines also has its major bases and facilities in Rio de Janeiro, and four brigades of the army (one in the neighbourhood of Niteroi) are largely formed from conscripts recruited in these municipalities. The military police battalions and their ammunition depots are also often located close to areas where organized crime has a strong presence. This creates highly suitable conditions for the theft and diversion of small arms and ammunition.

In July 2005, Internal Affairs detectives uncovered a network of ten serving and retired police officials who were diverting restricted use ammunition to drug factions. By the time they were discovered and arrested they had been able to divert at least 10,000 rounds of ammunition from the Rio de Janeiro civilian police ammunition depot. One of the leaders of this network of corrupt officials was the man who had for 16 years been the head of the ammunition depot (Secretaria de Segurança Pública, 2005; O Globo.com, 2005). Ammunition was diverted in small amounts at a time and stockpiled by a retired senior police officer who would then arrange for its sale to criminals (Secretaria de Segurança Pública, 2005; O Globo.com, 2005).

Theft and diversion from official ammunition stockpiles are not particular to Rio de Janeiro. For example, on 15 July 2004 the civilian police in the north-

eastern state of Amazonas, which has borders with Colombia and Venezuela, raided an illegal arms cache in the city of Manaus and seized 8,795 rounds of 12.7 mm, 7.62 mm, and 9 mm calibre that had been manufactured by CBC. The police believe that the ammunition was to be shipped to Fuerzas Armadas Revolucionarias de Colombia (FARC) combatants (although FARC denied this) or to armed groups in Venezuela. The detective in charge of the investigation also suspects that the ammunition was stolen from a military base in the neighbouring state of Roraima (Brasil, 2004a; Brasil, 2004b). Intelligence officials in Colombia confirm that military ammunition (mainly 12.7 mm rounds) is diverted from Brazil along the Vaupés River in order to supply the southern FARC fronts in Colombia (Dreyfus, 2005).

These cases demonstrate that applying efficient marking and tracing mechanisms and controls is crucial to preventing the diversion of police and military ammunition to criminal markets.

Case 3: from the gun shop to the criminals

On 21 February 2005 agents of the federal police small arms trafficking prevention division (Delegacia de Repressão ao Tráfico Ilícito de Armas, DELEARM) seized up to 2 million rounds of different calibres in the city of Estação, in the southern state of Rio Grande do Sul. They also arrested Leandro Brustolin, owner of the ammunition depot and of the wholesaler Brustolin & Brustolin; Antônio Ferreira de Farias, owner of three gun shops located in Recife in the north-eastern state of Pernambuco; and Paulo Roberto Schilling da Silva, former manager of the firearms producing company Rossi. The seizure and arrests were the result of Operação Gatilho ('Operation Trigger'), a combined operation by the federal police and the DFPC.

After a six-month intelligence operation, they dismantled a network of gun shops that had been used as front companies for the distribution of ammunition to criminal groups in the north-east of Brazil and (allegedly) in São Paulo and Rio de Janeiro (Irion, 2005). The ammunition (and a quantity of small arms) was stockpiled at Brustolin & Brustolin and then shipped by truck to the gun shops in Pernambuco, from where it was distributed to criminal groups involved in bank robberies, raids on armoured trucks, and drug trafficking.

According to the federal police, Paulo Roberto Schilling da Silva, using his knowledge of the arms business, acted as a broker between Leandro Brustolin in Rio Grande do Sul and Antônio Ferreira de Farias in Pernambuco. Most of the ammunition seized was produced in Brazil. This represents a clear case of internal ammunition procurement by criminal groups involving a group of legitimate entrepreneurs shifting to criminal activities (Irion, 2005).

According to Delegate Carlos Antônio Luiz de Oliveira, although diversion from wholesale and retailing companies is a problem, robbery of ammunition from gun shops and private wholesale deposits is not common practice in the state of Rio de Janeiro. These shops and deposits are guarded well *inter alia* by good security systems. Furthermore, such private deposits are prohibited by law from storing restricted-use calibres of ammunition—the kind of ammunition procured in large quantities by criminal organizations in order to sustain their armed competition with rivals and defend themselves against the police.⁴²

A hospital worker displays a handful of stray bullets that have hit Rio's Bonsucesso Hospital, which stands close to two notorious slums. The staff has earned a reputation as experts on gunshot wounds. January 2005.

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Case 4: from the law abiding citizen to the criminal—a highly plausible scenario

In September 2005 the governor of the state of Rio de Janeiro released a study of sources of supply of firearms to criminals produced by the Delegacia Legal Programme of the civilian police in Rio de Janeiro in cooperation with the ISER (Delegacia Legal, 2005). The study presents the results of a systematic analysis of data on 86,849 firearms used in different types of crime and seized by the police between April 1999 and June 2005. A database lists the type of crime in which the weapon was used, its owner (civilian, police, or private security), as well as the make, manufacturer, serial number, model, and calibre of the weapon. It was also possible to identify weapons that had previously been legally registered and, in some cases, if there was a report of the theft or loss of that weapon. The research indicates that 14 per cent of the weapons seized in drug trafficking-related crimes had previously been legally registered, and that 37 per cent matched the definition of what are known as ‘informal guns’, that is, unregistered permitted-use handguns that are likely to have been purchased by law-abiding citizens before registration became mandatory in 1980. This means that, in part, drug traffickers supply members of their organizations with weapons stolen from law-abiding citizens which then circulate in illicit markets. If theft is one source of supply for firearms used in criminal activity, it is plausible that ammunition is also stolen with the guns. Law-abiding individuals who own guns are thus indirectly and involuntarily supplying criminals with ammunition. This fact is disquieting because, until 2003, owners of small arms could, by presenting valid identification and the registration certificate for their gun(s), purchase up to 50 cartridges per month for handguns and rifles; up to 300 .22 long rifle cartridges; and up to 200 shotgun cartridges (Ministério do Exército, 1980, article 11; and Ministério da Defesa, 1999, article 19). Even more worrying is the fact that in Brazil an estimated 5.6 million registered firearms are owned privately by individuals and another 4.6 million firearms are held informally by individuals and unregulated private security companies (Dreyfus and de Sousa Nascimento, 2005, p. 160). All these guns use ammunition that could be either diverted or stolen. According to the Brazilian Army Statistical Yearbook, 320.9 million rounds were sold to gun shops and ammunition distribution depots by CBC between 1995 and 2002 (Ministério da Defesa, 1995–2002).

Complicating matters further is the fact that Brazil is home to 161 private security companies that handle large stockpiles of ammunition that could be either stolen or diverted to illicit channels.⁴³ According to the Brazilian Federation of Private Security and Valuables Transportation Firms (Federação Nacional das Empresas de Segurança e Transporte de Valores, FENAVIST), the federal police in 2002 alone authorized the purchase of 2.3 million rounds by private security firms (FENAVIST, 2002).

Control measures in the Brazilian Statute of Disarmament

Federal Law No. 10,826, known as the Statute of Disarmament, was finally passed on 22 December 2003 (specific technicalities were regulated on 1 July 2004 by Presidential Decree No 5123). This law was the result of a decade of campaigning for a federal law that would tighten controls on the circulation and use of small arms. The statute bans the carrying of small arms by civilians. It also includes provisions for stricter regulation of the small arms and ammunition industry.

Such measures include, for example, a mandatory online link between the army database, which lists production, imports, and exports, and the federal police database, which—under the new law—centralizes registration and information about seized weapons and ammunition. Previously, a lack of communication and information exchange between these institutions had prevented the efficient identification of diversion and trafficking patterns. The statute also establishes a centralized ballistic information system managed by the federal police, which will be supplied by manufactures with samples of bullets fired by new types of domestically manufactured or imported small armament. The use of Integrated Ballistics Identification System (IBIS)-type equipment will assist the identification and tracing of small arms used in crimes. The statute also gives the federal police powers to undertake periodic inspections of the stockpiles held by private security companies, gun shops, and depots—and prescribes severe penalties for underreporting of losses or thefts from the inventories of such organizations.

To tackle the specific problem of ammunition diversion, the new law establishes that the headstamps of cartridges produced in Brazil for federal and local

public security agencies and armed forces must include a lot number. The regulation entered into force on 1 January 2005 for .40 and .45 calibre ammunition and in July 2005 for 5.56 x 45 mm; 7.65 x 51 mm and 9 mm Parabellum; .380, .38, .50, and 12 gauge cartridges (Ministério da Defesa, 2004, articles 4, 11, and 12). The lot number identifies the public security institution or armed service that purchases lots of 10,000 rounds. These rounds are assigned to a single public legal entity with a unique lot number, and their lots are manufactured at their specific request. If, for instance, a lot of 10,000 rounds of 5.56 x 45 mm cartridges is manufactured by CBC for the Brazilian Army, that lot will be sold only to the army and the lot number will be marked on the base of each cartridge using laser technology at the end of the production process (Anders, 2005).⁴⁴

It is expected that lot numbers will help the police to identify patterns of ammunition leakages from the police or the military to organized crime. It may be possible to identify reloaded ammunition as such because CBC original primers are marked with a letter 'V'.

It should be noted that illicit ammunition reloading is currently only a minor problem according to the police forensic analysts in the state of Rio de Janeiro. This is not surprising considering the easy availability of ammunition on the illegal market. However, the issue of ammunition reloading as an option for criminal organizations should be considered in the near future if supply flows are curtailed by the enforcement of new legal and control measures.⁴⁵

Imported ammunition of the calibres named above will have to comply with the same packaging and marking requirements as Brazilian-made ammunition. Brazil, however, is a country that imports practically no ammunition since its legislation explicitly (and protectively) states that defence articles similar to those produced in the country are not to be imported unless there are explicit and specific national security reasons for doing so (Presidência da República do Brasil, 2000, articles 183, 189, 190, 195, and 196; Presidência da República do Brasil, 2004, articles 51, 52, 53, and 54). With regard to sales to individuals in gun shops, a recent regulation from the army reduces the quantity that each gun owner can purchase (per weapon) to 50 cartridges per year (Ministério da Defesa, 2005, articles 1 and 2).

Conclusion

It is too early to assess the impact of the new measures.⁴⁶ The expectation is that ammunition marking will provide the federal police and the justice system with a powerful tool to enable them quickly to identify and punish those state agents responsible for diverting ammunition to criminal outfits or for not taking the necessary security measures to prevent the theft and diversion of ammunition. It is also expected that ammunition marking will provoke a 'virtuous circle' by strengthening the control and security of military and police stockpiles. The sanctions established in the Statute of Disarmament should have a deterrent effect: trafficking, diverting, stealing, and illegally stockpiling ammunition falls under article 17 (illegal trade in firearms) and article 18 (international arms trafficking), which establish penalties of 8–16 years imprisonment.

Ammunition marking should not, however, be regarded as a panacea for preventing the diversion of ammunition to criminal outfits. None of the measures listed above would work by itself. It is the effective combination of these measures that will reduce the magnitude of the problem. Information exchange between the army, the manufacturers, the importers, and the federal police—as well as the control of private security companies and gun shops—will allow a strict control of the production, distribution, and recording of imports and exports of ammunition. The exchange of information between federal and local authorities on seizures and illicit use will also help to identify and eventually curtail diversion and trafficking routes and schemes. Combating and reducing institutional corruption, improving stockpile security and the disposal of surpluses, and reforming and adapting border control capabilities are complementary actions that must be undertaken at the same time. Technical measures can help in weak states such as Brazil. The key, however, is to strengthen the state to enable its institutions to implement such measures. Reducing and combating corruption is probably the biggest challenge that Brazil faces with regard to organized crime.

The Brazilian authorities are currently implementing one of the most comprehensive small arms control laws in the world. It is likely that these domestic restrictions will lead criminals to source ammunition from abroad from the police and military holdings of neighbouring countries. As stated above, there is evidence, for example, of past diversion of hand grenades from Argentine

military stockpiles to criminal organizations in Brazil. Neighbouring countries must now adopt similar restrictions on the domestic sale of ammunition and similar marking procedures. Another necessary step is regional initiatives to improve stockpile security and management, as well on measures to dispose of surplus ammunition. The regional harmonization of laws and practices, as well as the adequate, efficient, and timely exchange of intelligence and police information, will be key to achieving a reduction in transfers of ammunition to criminals in the years to come. ■

List of abbreviations

ACP	Automatic Colt Pistol
AE	Action Express
CBC	Companhia Brasileira de Cartuchos
DELEARM	Delegacia de Repressão ao Tráfico Ilícito de Armas (Small Arms Trafficking Prevention Division, Brazilian federal police)
DELOPES	Delegacia de Ordem Política e Social (Political and Social Order Division, Brazilian Federal police)
DFAE	Divisão de Fiscalização de Armas e Explosivos (Control of Arms and Explosives Division, Rio de Janeiro civilian police)
DFPC	Diretoria de Fiscalização de Productos Controlados (Directorate of Controlled Products, Brazilian Army)
DRAE	Delegacia de Repressão de Armas e Explosivos (Firearms Enforcement Unit, Rio de Janeiro civilian police)
FARC	Fuerzas Armadas Revolucionarias de Colombia
FENAVIST	Federação Nacional das Empresas de Segurança e Transporte de Valores (Brazilian Federation of Private Security and Valuable Transportation Firms)
IBGE	Instituto Brasileiro de Geografia e Estatística (Brazilian Institute of Statistics and Geography)
IBIS	Integrated Ballistics Identification System
IMBEL	Indústria de Material Bélico do Brasil
ISER	Instituto de Estudos da Religião (Institute for Religious Studies)

JUCERJA	Junta Comercial do Estado do Rio de Janeiro (Trade Board of the State of Rio de Janeiro)
PRB	Poudres Réunies de Belgique
Secex	Secretaria de Comércio Exterior (Brazilian Secretariat of Foreign Trade)
SINARM	Sistema Nacional de Armas
SPL	Special
S&W	Smith and Wesson
Comtrade	Commodity trade (UN statistics database)

Endnotes

- 1 Such offences could be called ‘market-based’ offences.
- 2 The term ‘territorial centrality’ refers in this context to the degree to which the monopoly on the use of legitimate armed force is exercised by the government of a state over its territory as well as the physical and functioning presence of accepted and legitimate national institutions that are not challenged by non-state groups.
- 3 The term ‘state’ is used in this chapter as a synonym of ‘country’ or ‘nation state’, that is, a recognized sovereign socio-political entity formed by a permanent territory, a defined population, and functioning government institutions.
- 4 Weak and strong state types are not static polar opposites. States can move along a continuum depending on variations in the levels of their socio-political cohesion, socio-economic development, territorial centrality, and political capacity. It is certainly possible to argue that in the late 1920s and early 1930s the United States was a weaker state than it is today, with widespread political and police corruption, economic depression, and strong social inequalities. Strong criminal organizations with territorial control over cities such as Chicago were a symptom of this weakness. The same could be argued about Italy and organized crime in the south of the country, particularly in Sicily. The process of containment of the Italian mafia was part of a parallel process of the consolidation and reform of Italian political and judicial institutions. For a discussion of the concept of ‘weak states’ in the context of an analysis of transnational organized criminal activity see Dreyfus, 2002; Lyman and Potter, 1997; and Stefanini, 2005.
- 5 In this chapter the term ammunition refers to cartridge-based ammunition up to 12.7 mm (.50) calibre as well as hand grenades. These are the types of ammunition commonly used by criminals and especially criminal organizations in Brazil.
- 6 The author is grateful to Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, for the concept of ‘internal and external flows’.
- 7 This is particularly, although not exclusively, the case for military and law enforcement calibres such as 7.62 x 39 mm, 7.62 x 51 mm, 5.56 x 45 mm, 9 mm, .45 and .40, .30, and .50 AE.
- 8 A Brazilian Ministry of Health study reports that there were 39,325 firearm-related deaths in 2003 and 36,091 in 2004 (Ministério da Saúde, 2005, p. 3).

- 9 Brazil is a Federal Republic made up of 26 states.
- 10 In this chapter the concepts 'illicit grey market' or 'illicit grey transaction' refer to cases in which legal loopholes or flaws are exploited in order to intentionally circumvent national or international laws or policies. The definition of 'grey market' is adapted from the concept defined in the *Small Arms Survey*, 2001, pp. 166–67.
- 11 Raw data obtained from the Secretariat of Public Security in the state of São Paulo and analysed by Viva Rio/ISER.
- 12 Raw data obtained from the state of Rio de Janeiro civilian police Control of Arms and Explosives Division (Divisão de Fiscalização de Armas e Explosivos, DFAE) and analysed by Viva Rio/ISER.
- 13 Each Brazilian state has a uniformed militarized police force and a plain-clothed investigative or civilian police force.
- 14 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August 2005.
- 15 A new federal small arms control law known as the Sistema Nacional de Armas (SINARM) was passed in 1997. It criminalized illicit possession and carrying of small arms and illicit trade in small arms. Before the new law, illicit carrying, for example, had been a simple violation punishable by a fine. In 2003 the new and stricter federal law known as the Statute of Disarmament increased penalties for illicit carrying of arms and ammunition still further and criminalized illicit arms and ammunition trafficking. In 2001 the Rio de Janeiro state created a firearms enforcement unit (the Delegacia de Repressão de Armas e Explosivos, DRAE) to enforce small arms control laws. It is notable that the late 1990s and the early 2000s was a period of increasing cooperation and information sharing between state police forces and the federal police.
- 16 According to sources interviewed in Paraguay, the United States resumed issuing export licences to Paraguay in 2005. These exports, however, are limited to hunting and sport shotguns.
- 17 Raw data obtained from the state of Rio de Janeiro civilian police DFAE and analysed by Viva Rio/ISER.
- 18 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005; interview with Forensic experts from the Rio de Janeiro state police, Rio de Janeiro, November 2005.
- 19 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 20 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 21 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 22 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 23 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 24 The following types of ammunition are designated restricted-use ammunition: 7.62 x 51 mm; 5.56 x 45 mm; 9 mm; .357 Magnum; .38 Super Auto; .40 S&W; .44 SPL; .44 Magnum; .45 Colt

- and .45 Auto; .22-250; .243 Winchester; .270 Winchester; 7 Mauser; .30-06; .308 Winchester; 7.62 x 39 mm; .357 Magnum; .375 Winchester; .44 Magnum; and .50 AE cartridges (Ministério da Defesa, 2001, articles 6 and 8; Ministério da Defesa, 2000; and Ministério da Defesa, 2001b, articles 6, 8, and 15; Ministério do Exército, 1998).
- 25 The definition of 'restricted use' also includes any weapon and ammunition similar or equal to those used by the armed forces and the police. This would include, for example, assault rifles, machine guns, grenade launchers, sub-machine guns, as well as light weapons and their ammunition.
- 26 The following types of ammunition are designated permitted-use ammunition: .22LR; 32 S&W; .38 SPL; .380 Auto; 7.65 mm Browning or 32 ACP; .25 Auto; 32-20; 38-40; .44-40 and up to 12 gauge. (Presidência da República do Brasil, 2000, articles 16, 17, Chapters VIII and IX; Presidência da República do Brasil, 2004, articles 19 and 21, paragraph 1; Presidência da República do Brasil, 2003, article 4, III-3"). 12 gauge ammunition is only considered to be for 'permitted use' when purchased for shotguns with a barrel longer than 24 inches.
- 27 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 28 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, August, 2005.
- 29 A shorter version of this case study was presented in *Small Arms Survey*, 2005, p. 26.
- 30 In Graphs 2–5 the group 'other countries' includes, in order of importance, the Philippines, South Korea, Argentina, Italy, Israel, and Germany.
- 31 This data has been checked against official US and Brazilian customs information. The author would like to thank Julio Cesar Purcena, Researcher at the Small Arms Control Project of Viva Rio/ISER, for his technical support in the analysis of these foreign trade statistics.
- 32 Based on cross-checked information from the Brazilian Secretariat of Foreign Trade (SECEX) and the Statistical Yearbook of the Brazilian Army on the quantity of ammunition exported and the proportion of that ammunition exported to Paraguay, it is estimated that between 1982 and 1999 Brazil exported 71,803,082 rounds of ammunition to Paraguay.
- 33 In contrast to Graphs 2–5, Graph 6 presents quantities rather than values and covers a shorter time period (the data available from OCIT covered 1997–2003). This explains, for example, the large share shown for exports from the Philippines, which started exporting ammunition to Paraguay in 1997 after the United States and Brazil had ceased their exports.
- 34 Dreyfus et al., 2003, p. 18; Gosman, 2003; Viva Rio/ISER, 2003; Werneck, 2003, p. 18; Alves, Soler, and Werneck, 2004, p. 17.
- 35 The calibres found were 7.62 mm; 5.56 mm; .40; .45; 9 mm; .380, and 12.7 mm.
- 36 Bottari and Goulart, 2004; *Jornal de Brasília*, 2004; *O Globo*, 2004; Pinheiro and Martins, 2004.
- 37 The lot numbers for the grenades were engraved in the security lever and the fuse.
- 38 Bottari and Goulart, 2004; *Jornal de Brasília*, 2004; *O Globo*, 2004; Pinheiro and Martins, 2004.
- 39 Interview with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, Rio de Janeiro, November 2004.
- 40 Bottari and Goulart, 2004; *Folha de São Paulo*, 2004; *Jornal de Brasília*, 2004; *O Globo*, 2004; Pinheiro and Martins, 2004.
- 41 This figure comes from the Brazilian Institute of Statistics and Geography (Instituto Brasileiro de Geografia e Estatística, IBGE), which compiled the data from the 2000 national census.

- 42 Correspondence with Delegate Carlos Antônio Luiz de Oliveira, Chief of the Rio de Janeiro civilian police DRAE, December 2005. It is also true that there are few gun shops in the state of Rio de Janeiro. According to the state Board of Trade in Rio de Janeiro (Junta Comercial do Estado do Rio de Janeiro, JUCERJA) there were nine gun shops in that state in 2003. According to an assessment made by Viva Rio in 2005, there were only four shops trading in the state of Rio de Janeiro.
- 43 These stockpiles contain .38 SPL; .32 S&W; 32ACP; .380 Auto; and 12 gauge ammunition.
- 44 Information from a presentation by an officer of the Brazilian Army Directorate of Controlled Products at the Putting People First, Rio Meeting 'Regulating civilian ownership of weapons' organized by Humanitarian Dialogue, Viva Rio, and Sou da Paz, Rio de Janeiro, 16–18 March, 2005.
- 45 Interviews with forensic analysts at the Rio de Janeiro state or scientific and technical police, Rio de Janeiro, November 2005. According to the analysts, reloaded ammunition is only a minor and unrepresentative part of the ammunition they examine in the course of their work. Reloading is limited to revolver and pistol ammunition and is identified either by the primer capsule or, in the case of pistol ammunition, because the head does not have a full metal jacket as is the case for most of the pistol ammunition manufactured by CBC. According to Brazilian legislation, apart from law enforcement agencies and the armed forces, only the following entities are authorized to reload ammunition and own reloading machines: shooting clubs, authorized shooters, hunters, arms companies, and private security academies.
- 46 Local and federal law enforcement officials and forensic experts interviewed for this chapter had not yet seen cases of new lots with numbered cartridges (interviews, Rio de Janeiro, November 2005).

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A Filipino port police official arranges confiscated ammunition at the Manila International Container Port in the Philippines, April 2005.
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