Annual Global Supply Chain Intelligence Review

Supply Chain Threats, Risks, and Trends

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Executive Summary

Global supply chains continued to face a range of security, social responsibility, and business continuity risks in 2016, with many of these issues engendered by one another. BSI noted multiple incidents that started out as a security, social responsibility, or a business continuity risk before developing into an issue impacting multiple aspects of the supply chain. The European migrant crisis is perhaps the best example of a type of event that began as a single, security risk (from a stowaway perspective), before creating a business continuity disruption as countries imposed border controls which in turn blocked migrants in certain nations where they had to find work, often falling victim to forced labor. Companies are increasingly required to employ a multifaceted and coordinated approach in order to mitigate the often intertwined security, continuity, social responsibility threats characteristic of the current world dynamic.

In 2016, authorities in Asia, such as those in China and Bangladesh, sought to address significant labor strikes and protests. But harsh tactics, including the use of security forces and the targeting of union leaders, threatened the sustainability of these efforts. Reactive approaches to pollution mitigation in China and Vietnam also often disrupted businesses’ operations or failed to quell public unrest over these issues. While a series of economic reforms in India could reduce supply chain risk in the future, the initial implementation of one reform plan actually increased some threats in the near term.

A coup attempt in Turkey also had a mixed impact on supply chain risk in the country. While short-term threats to business continuity subsided, the purging of suspected coup plotters from government agencies will very likely undermine supply chain security moving forward. The agreement over migrant readmission and refugee flows between Turkey and the European Union remained intact in 2016, despite concerns over the deal’s potential collapse that could have increased irregular migration into Europe.

Worryingly, criminals in the leading European economy, Germany, continued to use varied tactics to perpetrate cargo theft. Germany and France also witnessed a relative weakening of new corporate social responsibility laws, although Denmark and the United Kingdom advanced more robust human rights legislation.

In the Americas, Brazil and Mexico – two of the world’s leading countries for the threat of cargo theft – suffered an increase in national theft rates. Numerous Latin American and European countries witnessed record cocaine seizures in 2016, driven largely by a spike in cocaine production and trafficking in Colombia. As in other regions, governments in Latin America saw varied success in addressing social responsibility threats, with Ecuador and Panama reducing child labor but Peru failing to make significant progress on human rights and environmental issues.

In 2017, BSI expects continued threats of cargo theft and drug smuggling in the Americas and Europe, protests over wage and other labor issues across Asia, and persistent risks of terrorism, including terrorist targeting of the supply chain. New initiatives to address security, social responsibility, and continuity risks in many regions will require close monitoring to assess their effectiveness at the ground-level. The following report addresses the major threats faced by each region last year, and provides a look at several approaches companies implemented to counter these threats, as well as trends BSI anticipates in 2017.

BSI has seen that many organizations are responding to these myriad threats by adopting strategies that examine and analyze threats as they specifically relate to supply chain operations. Utilizing supply chain intelligence is then applied as part of an overall risk-based approach to assessing suppliers and business partners across the globe. Many multinational organizations with complex supply chains have also expressed a desire to better understand upstream suppliers beyond their immediate Tier 1 vendor. This has proven to be a challenge, as the buyer at the furthest point downstream in the supply chain is less likely to be in a position to exert influence over suppliers of components and materials selling into their direct supplier of finished products.
This has become all the more urgent as regulatory changes, such as regulations in the United States and United Kingdom regarding forced labor in the supply chain, which require an improved understanding risks associated with upstream suppliers of any input of the product, as opposed to risks solely present at the final assembly site. BSI has engaged clients to develop innovative approaches to feasibly include upstream suppliers within the scope of existing supplier monitoring programs. One approach that BSI employs is to develop risk assessment tools to systematically quantify the risks, impacts, and extent of leverage associated with particular supplier relationships. This enables organizations to be strategic in the choice of which suppliers to engage and the means of their engagement, while still consistently accounting for risks related to all suppliers – including those that may reside beyond the immediate Tier 1 vendor. Another approach has involved the delivery of targeted risk assessments based on a particular issue, such as trafficking and slavery, or on a particular product category. In these cases, the projects were able to identify countries of origin of underlying materials, and the corresponding risks posed by those inputs and sources. This has also allowed these organizations to make informed choices about how to apply program resources.

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33 percent of factory strikes in China in 2016 involved a police force response. Only 7 percent involved government mediation.

Authorities reported a 65 percent increase in the number of detentions of suspects over environmental violations.

An ISIS-linked terrorist hijacks a Polish tractor-trailer and rams vehicle into Berlin holiday market, killing 12 people and wounding 56 more.

Citizens voted in referendum to leave the European Union.

A series of cases of illegal factory wastewater dumping triggered six weeks of protests in four regions, involving over 500 arrests.

Numerous states propose or pass laws targeting cargo theft and CSR issues.

Fragmentation of cartels created smaller criminal gangs and exposed supply chains to increased risks of cargo theft and extortion.

Smugglers in Bolivia routed increased shipments of weapons and ammunition to Brazil and Argentina via cargo.

Increased attacks on oil infrastructure in the Niger Delta and piracy in the Gulf of Guinea.

Increase of introductions of amphetamines into ferry-bound cargo truck shipments to Saudi Arabia.

New law harshly restricts NGO activity, leading to lower quality information on economic and social trends in the country.

Paris climate agreement enters into force after at least 55 countries covering more than 55 percent of greenhouse gas emissions ratified the accord.

Major demonstrations against the African National Congress cause business disruption in Pretoria.

Increased attacks on oil infrastructure in the Niger Delta and piracy in the Gulf of Guinea.

Smugglers in Bolivia routed increased shipments of weapons and ammunition to Brazil and Argentina via cargo.

Major demonstrations against the African National Congress cause business disruption in Pretoria.

Citizens voted in referendum to leave the European Union.

 Authorities reported a 65 percent increase in the number of detentions of suspects over environmental violations.
2016 Major Trends

Top Ten Costliest Natural Disasters in 2016

- Earthquake - JAPAN
- Flooding - CHINA
- Hurricane - UNITED STATES/CARIBBEAN
- Flooding - UNITED STATES
- Drought - CHINA
- Flooding - EUROPE
- Drought - INDIA
- Earthquake - ITALY
- Flooding - CHINA
- Wildfire - CANADA

United Kingdom Modern Slavery Act Compliance as of October 2016

- Was Statement Approved by Board of Directors? 30%
- Was Statement Signed by a Director-Level Manager? 49%
- Does the Company Have a Link to the Statement on Their Home Page? 50%
- Is the Company Compliant With All Three Criteria? 6%

BSI Recorded Seizures of Unmanifested Cargo Introduction by Type of Good 2016

<table>
<thead>
<tr>
<th>Category</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Beverage</td>
<td>43%</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>24%</td>
</tr>
<tr>
<td>Construction Materials</td>
<td>5%</td>
</tr>
<tr>
<td>Apparel</td>
<td>4%</td>
</tr>
<tr>
<td>Machinery</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>19%</td>
</tr>
</tbody>
</table>

Major 2016 BSI SCREEN Threat Rating Trends

- Increased Severity
- Decreased Severity

- Child Labor
- Stowaway Introduction
- Cargo Theft
- Child Labor
- Arms and Weapons Introduction
- Natural Disaster Resilience
- Illegal Drug Introduction
- Natural Disaster Resilience
- Water Pollution
- Man-Made Disruption
Introduction

In 2016, governments in Asia responded to increasing levels of supply chain risks, but many policies were merely reactive and often led to further threats to the integrity or continuity of the supply chain. Concerted government efforts to address labor protests in China contributed to a decrease in the number of strikes, but harsh tactics such as the frequent use of police forces to quell protestors continued. Reactive responses to social responsibility issues, such as air pollution in China, water pollution in Vietnam, and wage protests in Bangladesh, often disrupted business operations or led to further public discontent. While reforms in countries such as India held the promise for significant improvements to some areas of supply chain risk, even these efforts were also met with mixed success, including even significantly increasing some threats in the short-term.

Mapping Supply Chains to Avoid the Risks of Expanding Into Asia

Consumer markets in China and India are among the fastest-growing in the world, and many companies are rushing to take advantage of growing demand for a wide range of products in these countries. Some of them, however, are finding it much more difficult to import products into these countries than it is to export from them. In the pharmaceutical sector, for example, the transportation, warehousing, and distribution of prescription drugs is much more fragmented than in the United States or Western Europe. There are very few companies capable of distributing to all of China, and high-quality warehouse space is scarce. The result is decreased supply chain visibility as companies are forced to use multiple providers for each service or employ firms that outsource a significant portion of their operations.

Thankfully, companies have found that careful mapping of their supply chain relationships and evaluation of supply chain business partner risk, using BSI’s SCREEN software, the SCM software, and our expert Advisors, can help them navigate these complex new environments. By identifying which business partners pose the greatest risk to their operations, companies are able to gain a better picture of their operations in these countries and develop measures to mitigate business partner risk.

Companies may find similar difficulties when setting up manufacturing operations in countries such as Myanmar or Vietnam. In order to get ahead of risks in these countries, it helps to have a detailed understanding of typical labor practices in the country and recent incidents in similar industries that could be early indicators for a particular risk. Companies should also pay attention to the interdependency of risks. For example, sub-standard infrastructure and port strikes often lead to delays in raw material delivery, which can lead to poor labor practices such as forced overtime as factories scramble to meet deadlines. Attention to warning signs for strikes, in this example, would help a company avoid a whole host of other supply chain risks.
Concerted Government Efforts to Limit Strike Activity in China

BSI observed a shift in labor strike threats in China in 2016, driven mainly by concerted government efforts to limit strikes in the country following years of increasing labor disruption. Labor strikes still occurred in large numbers across China last year, but the number of strikes dropped in 2016 for the first time in recent years. Strikes at factories dropped by 31 percent; with two-thirds of provinces – including major apparel, consumer goods, and electronics production hubs – witnessing a decline in manufacturing strikes. An emerging area of concern is the growth in strikes in the logistics sector, including trucking, shipment processing, and delivery, which rose more than fourfold from nine incidents in 2014 to 40 last year.

The drop in strikes that BSI recorded in China was largely a result of specific efforts to limit labor actions after a drastic growth in strikes in preceding years. The government sought to restrict strikes ahead of major world events which garner international attention, such as the G20 Summit in the Shanghai area in September. BSI recorded a significant dip in strikes that month compared to other surrounding months. In one positive sign, China saw record levels of government- and corporate-sponsored mediation and negotiation in labor disputes in an effort to mitigate strikes. However, the use of police and other harsh government tactics continued to be the most common response to labor strikes in China in 2016, underscoring the serious ongoing threat to labor rights in the country.

Responses to Factory Strikes in China

Drop in Strikes Around the September G20 Summit in China
Continued Environmental Threats in China, Despite Some Improvements

China continued to face significant environmental threats in 2016, despite improvements to mitigation and response efforts in recent years. Policy initiatives, including emissions targets, environmental impact assessments, and economic reforms, as well as an economic slowdown, contributed to substantial improvements in some environmental indicators such as air quality in recent years. However, many areas of the country continue to suffer from extremely poor environmental conditions, with air pollution in five major cities remaining above the World Health Organization’s human safety limit, despite nonetheless experiencing steady drops in pollutant levels over the past three years.

Notably, officials in China carried out significantly more environmental enforcement actions in 2016. The number of factory closures, asset seizures, and arrests and detentions all increased last year – some by as much as 65 percent – and total environmental fines reached over $40 million. Heightened levels of enforcement are very likely to persist into 2017 as authorities continue to address environmental threats in the country.

While increased enforcement in China is a positive sign for environmental conditions, incidents in 2016 underscored how officials in the country often take a reactive and disruptive approach to environmental mitigation. For example, in an effort to quickly drive down emissions in certain areas, authorities often restricted factory production and trucking, impeding the continuity of business and supply chain operations. This disruptive approach was especially apparent when the government hosted the G20 Summit in the Shanghai area in September. At that time, authorities in five provinces ordered weeks-long shutdowns of hundreds of factories and other industrial facilities, with the textile sector being among the industries hardest hit.
Water Pollution Risks and Business Continuity Impact in Vietnam

A series of major wastewater dumping cases in Vietnam underscored the serious threat of water pollution in the country. Multiple factories were implicated for dumping untreated waste into waterways in four regions, causing hundreds of people to fall ill and killing more than 120 tonnes of fish, a primary food source in the country. While officials did eventually respond by calling for new inspections, suspending some factories, and ordering compensation payments, the response was generally slow, and it failed to stem significant protests over six weeks in four regions, in which authorities arrested more than 500 people and struck demonstrators.

In addition to their direct environmental impact, these incidents also posed indirect risks to the continuity of the local supply chain. The demonstrations that occurred generally targeted foreign-owned businesses, including one factory that protestors previously damaged during riots in 2014. These issues underscore the serious threat of environmental violations and disruptive protests facing foreign businesses with operations in Vietnam. Such issues will likely become increasingly common if current trends in foreign investment continue, especially if the government fails to proportionally increase its mitigation and response capabilities.

Business Continuity Impacts of Major Reforms in India

The Indian government planned two major reforms in 2016 that had significant impacts on business and supply chain operations in the country. The first reform, the long-debated Goods and Services Tax (GST), is designed to ease the burden on businesses operating in the country by streamlining the taxation system and creating a more unified single market between India’s 29 states and seven union territories.

The GST will very likely modernize India’s logistics sector, which is one of the least efficient among the world’s largest economies. Under the new system, the number of tax filings required for many types of cargo shipments will be significantly reduced, with various current filings consolidated into federal and state GST filings. Additionally, the GST includes the implementation of an electronic filing portal, reducing the need for truck drivers or other employees to pay taxes or fees manually at border checkpoints. These improvements should vastly expedite the movement of cargo across Indian states, a major benefit given the

**India’s Goods and Services Tax**

<table>
<thead>
<tr>
<th>Multi-Tier (Current System)</th>
<th>Goods and Services Tax (GST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National/State taxes</td>
<td>15</td>
</tr>
<tr>
<td>Filings</td>
<td>Individual (per tax)</td>
</tr>
<tr>
<td>Payments</td>
<td>Manual at border</td>
</tr>
</tbody>
</table>

Additional Benefits:

- GDP growth rate increase by up to 2%
- Logistics sector savings of $200 billion/year
- Increased manufacturing and exports
substantial extent of India’s internal borders. Migrating tax and duty payments to an online system will also reduce opportunities for supply chain corruption by border officials. Lastly, the expected shorter wait times for cargo trucks at border crossings should decrease the exposure of shipments to cargo thieves.

Though initial implementation of the GST was scheduled for April 2017, the law’s rollout was delayed in part by concerns over the second major reform implemented by the Indian government in 2016: the surprise demonetization of the country’s two most-widely circulated banknotes. On November 8, the government announced that 500- and 1,000-rupee banknotes, representing 86 percent of all currency in circulation, would be demonetized.

The resultant cash crunch caused significant short-term uncertainty and disruption in the country, as well over 90 percent of transactions in India are cash-based. The demonetization especially impacted the trucking industry, with a national organization representing 9.3 million truckers reporting that 70 percent of trucks driven by members were off the roads in late November due to a lack of funds for fuel or other essentials. Businesses throughout the country were unable to pay warehouse workers and other supply chain employees, while millions of laborers missed hours or days of work waiting in bank lines to deposit cash.

These effects were exacerbated by other disruptive events. For instance, crippling power outages in Chennai and other areas of Tamil Nadu State in the aftermath of Tropical Cyclone Vardah rendered ATMs useless and further disrupted economic activity, worsening the severe cash crunch caused by demonetization. The government’s remonetization of the economy, driven by the production of new 500 and 2,000 rupee notes, has yet to fully reverse the business continuity impacts of the initial ban. Public unrest over demonetization has been limited, but the reform’s disruptive impact on supply chain operations in India is likely to continue well into 2017.

<table>
<thead>
<tr>
<th>Country</th>
<th>Administrative Divisions</th>
<th>Area (Sq. mi.)</th>
<th>Ranking (by ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>29</td>
<td>1,105,805</td>
<td>1</td>
</tr>
<tr>
<td>Argentina</td>
<td>24</td>
<td>1,056,640</td>
<td>2</td>
</tr>
<tr>
<td>United States</td>
<td>50</td>
<td>3,531,925</td>
<td>3</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>14</td>
<td>1,042,400</td>
<td>4</td>
</tr>
<tr>
<td>Russia</td>
<td>83</td>
<td>6,323,482</td>
<td>5</td>
</tr>
<tr>
<td>Brazil</td>
<td>27</td>
<td>3,266,584</td>
<td>6</td>
</tr>
<tr>
<td>China</td>
<td>22</td>
<td>3,600,950</td>
<td>7</td>
</tr>
<tr>
<td>Canada</td>
<td>13</td>
<td>3,511,023</td>
<td>8</td>
</tr>
<tr>
<td>Australia</td>
<td>6</td>
<td>2,947,336</td>
<td>9</td>
</tr>
</tbody>
</table>

**Demonetization By the Numbers**

- **90-98%** of transactions cash-based
- **233 million** Indians without bank accounts
- **Less than 9%** of Indians have debit or credit cards
- **86%** of all currency in circulation demonetized
- **70%** of trucks registered with All India Motor Transport Congress, representing 9.3 million truckers, off the roads
Initial Supply Chain Benefits of Demonetization in India

Demonetization has led to some benefits for the Indian economy. Criminals targeting the supply chain have struggled to deal with the short-term currency shock, as drug smugglers and child labor traffickers have been forced to lessen their activities due to a loss of their cash holdings. The Indian government has stated that militant groups have similarly been impacted by demonetization. Additionally, government officials claim that the new 500 and 2,000 rupee banknotes are far more difficult to counterfeit than the banknotes they replaced; however, authorities have made numerous seizures of counterfeit 2,000 rupee banknotes in recent months. Perhaps most importantly, demonetization, in conjunction with GST, should in the long-term help transition a large portion of the Indian economy from an informal cash-based system to a more formal, digital model.

Increased Labor Rights Concerns in Bangladesh

BSI noted increasing labor rights concerns in Bangladesh in 2016, both in the country's large readymade garments (RMG) sector and in other industries. Bangladesh's garment sector was troubled both by reports of higher levels of child labor than previously believed and harsh restrictions on the freedom of association and collective bargaining. A December 2016 survey of the Dhaka slums found a far higher incidence of child labor than previous government studies had suggested, with 15 percent of children employed in formal and informal enterprises. Additionally, the survey found that a significantly larger proportion of children were employed in the formal RMG sector than had been previously believed.

Children working in informal facilities were also part of export-oriented supply chains, as many formal enterprises in Bangladesh subcontract to smaller, less-regulated informal factories at times of high demand. Regulatory enforcement of Bangladeshi child labor laws is hampered by the fact that few children in the country's poorer regions, including the Dhaka slums, have birth certificates or other documentation verifying their age. Child labor and other labor concerns in the RMG sector are exacerbated by the severe understaffing of the Bangladeshi labor inspectorate.

<table>
<thead>
<tr>
<th>Readymade Garment Factories in Bangladesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garment factories producing for export</td>
</tr>
<tr>
<td>Direct exporting factories</td>
</tr>
<tr>
<td>Indirect sourcing factories</td>
</tr>
<tr>
<td>Factories covered by Accord/Alliance worker safety programs</td>
</tr>
<tr>
<td>Total factories that have completed Corrective Action Plans mandated by Accord/Alliance</td>
</tr>
</tbody>
</table>

Sources of Employment for Girls in Dhaka Slums

- Formal garment factories: 62%
- Informal garment factories: 33%
- Other: 5%
The study also documented abusive practices in garment factories that employed children. Over 37 percent of girls reported being forced to work overtime, while children employed in the formal garment sector earned only half the national minimum monthly wage for garment workers. Abuse was not confined to child laborers; another 2016 survey found endemic mistreatment of adult workers in the garment sector as well.

While conditions in some Bangladeshi garment factories are improving, the limited nature of working conditions improvement programs supported by Western brands means most garment factories have neither been inspected nor implemented corrective action plans. Another major concern in the Bangladeshi RMG sector is government restrictions of the freedom of association and the right to collective bargaining. Both the Bangladeshi government and garment factories cracked down harshly on protests in support of a higher minimum wage in December 2016, with over 1,500 protesters fired, several trade unions forcibly closed, and 34 union leaders arrested on exaggerated charges. These developments represent a concerning deterioration of labor protections in Bangladesh’s RMG sector as the two major working conditions programs started by Western retailers begin to wind down.

**Working Conditions Improvement Programs in Bangladesh Garment Sector Set to End in 2018**

Following the 2013 collapse of the Rana Plaza garment factory in Dhaka, Bangladesh, in which over 1,100 workers died, major Western brands and retailers created two separate agreements with local unions and stakeholders to improve working conditions in the Bangladeshi garment industry. The programs, the Accord on Fire and Building Safety in Bangladesh and the Alliance for Bangladesh Worker Safety, represent primarily European and North American retailers respectively. Although both the Alliance and the Accord regularly inspect garment factories in Bangladesh, document safety violations, assist factories in developing Corrective Action Plans (CAPs), and in some cases suspend relations with noncompliant factories, the two programs have inspected only a small fraction of the total number of factories in Bangladesh that produce garments for export. Additionally, the two programs generally cover only occupational health and safety concerns, and do not investigate other working conditions violations. Both programs are set to end in the summer of 2018, and although retailers and the Bangladeshi government have expressed a desire to continue both the Accord and the Alliance past their original termination dates, no steps have been taken to formally extend the programs.
Introduction

BSI recorded notable shifts in cargo theft trends and tactics across Germany and Italy in 2016. A readmission agreement between the European Union and Turkey slowed the influx of Syrian migrants into Europe to the benefit of business continuity; however, improved border security also resulted in more professional human smuggling via European supply chains. A failed coup attempt also significantly impacted business continuity in the short-term in Turkey, while the government’s harsh response could undermine the country’s security infrastructure and expose the nation to more significant supply chain threats moving forward. Lastly, both public and private sectors in Europe struggled to comply with new corporate social responsibility regulations entering into force.

Notable Cargo Theft Trends in Germany and Italy

An increasingly high rate of cargo theft plagued freight shippers in Germany in 2016. BSI analysis of annual theft data indicates multiple trends and tactics across the country. Nearly half of all cargo truck thefts in Germany were pilferage incidents in which thieves slashed into the tarpaulins of trailers to steal cargo, a common theft type due to the widespread usage of soft-sided trailers in Europe. These thefts frequently occurred when freight shippers parked overnight in unsecured, poorly lit rest stops along major highways in Germany. The eastern state of Brandenburg in particular suffered a fourfold increase in slash-and-grab thefts last year compared to 2015. Additional German police operations revealed that organized theft gangs from Poland contributed considerably to the rise in both slash-and-grab thefts and full-load truck thefts in Germany in recent years. North Rhine-Westphalia, Lower Saxony, Bavaria, Hesse, and Saxony also suffered from high rates of cargo theft in 2016. Greater enforcement efforts as well as industry demands for more secure parking and hard-sided trailers signify a growing understanding of the cargo theft environment in Germany.

BSI noted a more positive trend for pharmaceutical shippers in Italy, which historically has faced one of the highest rates of cargo theft in Europe. In 2013, Italy suffered from a hijacking rate of pharmaceutical trucks that was ten times higher than the European average. However, for the second year in a row, the country recorded only a handful of full-load pharmaceutical truck thefts, in line with the rates of theft recorded in most other European countries. Better theft data sharing between the public and private sectors contributed to improved preventative measures against in-transit cargo truck theft in Italy. Despite ongoing government-led efforts, security practices at pharmaceutical facilities, such as hospital pharmacies and specialized logistics warehouses, remain lax in Italy. Active cargo theft gangs repeatedly exploit these security gaps, particularly when high-value drugs first enter the marketplace.
Business Continuity Impact of Terrorist Attacks in Europe

Terrorist attacks and other business continuity interruptions can place significant stress on a company’s supply chain, revealing vulnerable practices of key suppliers. In order to guard against these risks, it is helpful to gain an understanding of who ‘owns’ the supply chain. For the first, companies should evaluate whether they are too heavily dependent upon a single business partner for a crucial service, such as transportation. If they are, the company should ensure that the business partner understands how their operations could be affected by an event, such as the terrorist attacks seen in Europe last year, and has plans in place to mitigate the impact. Alternately, the company could consider other suppliers of the same service to spread out the risk.

In order to do this evaluation, however, companies have to understand who ‘owns’ supply chain business continuity risk. In BSI’s experience, companies quite frequently have detailed plans for recovery and mitigation should an event occur at their own facility, but have very little knowledge of what the same event could do to their suppliers. Large companies have started to outsource significant portions of their operations, but their business continuity planning has not kept pace and adapted to this new reality.

In order to ensure that a future terrorist attack doesn’t have unintended consequences for company supply chains, supply chain professionals should look for ‘choke points’ that could stop the movement of cargo and evaluate possible risks at these locations. Companies also should not assume that their suppliers have a plan in place for a major disruption, and instead ensure that supplier business continuity plans are at least as thorough as their own. Running through possible scenarios can help identify which suppliers would be impacted by an event and test whether their plans are robust enough.

Significant terrorist attacks in Nice, France in July and Berlin, Germany in December, along with dozens of counterterrorism arrests across Europe in 2016, revealed some similarities in timing and tactics. BSI assesses that the threat of anti-Western terrorism typically increases ahead of major holidays both in Europe and around the world. Civilian gatherings, often in public places, provide easier targets for terrorist attacks. To this point, the terrorist attacks in Nice and Berlin occurred respectively at national day celebrations and a Christmas market.

Those attacks in particular also underscored the threat that terrorists will exploit the supply chain to perpetrate attacks. In both cases, Tunisian men linked to the Islamic State in Iraq and Syria (ISIS) used cargo trucks to ram into crowds of civilians. The Berlin attacker even perpetrated an explicit disruption of the supply chain before the attack by hijacking a Polish tractor-trailer carrying a shipment of steel beams. ISIS-linked plots involving similar timing and tactics are likely to continue challenging European security into 2017.

Coordinated suicide bombings in Brussels in March also underscored the business continuity risks of terrorist attacks in Europe. Attacks at Brussels Airport in Zaventem and at the Maalbeek metro station triggered a series of emergency security measures that affected European supply chains. Heightened border controls in Belgium,
France, Germany, the Netherlands, and the United Kingdom slowed cargo truck transportation, rail freight, and air cargo. Belgian customs officers responsible for illicit drug detection in freight shipments received new orders to conduct counterterrorism surveillance at major transportation hubs. BSI tracked similar government responses following the Nice and Berlin terrorist attacks, which also impacted business operations across most supply chain modalities in several European countries.

**Shifting Supply Chain Risks of European Migrant Crisis**

Supply chain risks due to an influx of about two million migrants into Europe in recent years shifted considerably in 2016. A readmission agreement between the European Union (EU) and Turkey, which hosts nearly three million Syrian migrants, significantly reduced the overt flow of migrants into southeastern Europe throughout the year. Many EU countries subsequently lessened their most disruptive border controls, which had caused extreme delays and financial losses for freight shippers. Repeated calls for better EU coordination on the migrant crisis also led to the creation of a new agency with enhanced operational capabilities to manage EU borders. This development aims to mitigate the business continuity risks of another migrant influx, particularly if EU-Turkey relations remain tense due to stalled accession talks for EU membership and the post-coup crackdown in Turkey.

Despite a reduction in overt migrant flows, the EU-Turkey deal and enhanced border security also drove more professional migrant smuggling via European supply chains. In 2016, BSI increased the threat ratings for stowaway introduction into cargo in Denmark, Greece, Serbia, and Turkey. Since the beginning of the migrant crisis, the Port of Calais in France was a major hotspot for migrants attempting to stow away on cargo trucks destined for the United Kingdom (UK). The closure of the “Jungle” migrant camp in late October notably decreased stowaway discoveries by 88 percent in the area. Migrant smugglers quickly adapted, however, facilitating flows to other Western European ports as far north as Denmark. The Port of Esbjerg in particular reported finding stowaways on cargo trucks boarding UK-bound ferries on nearly a daily basis at the end of last year. The Bulgarian-Turkish border was another hotspot facing even more serious issues of stowaway introduction due to corruption among supply chain actors. Several Bulgarian customs officers at the Kapitan Andreevo border crossing facilitated the smuggling of dozens of migrants via freight trains originating in Turkey. The increasingly organized nature of these illicit operations suggests that stowaway introduction is likely to remain a significant threat to supply chain security in Europe.
Corporate Social Responsibility Regulations in Europe

In 2016, many EU member states scrambled to meet new union-wide regulations on corporate social responsibility (CSR), with mixed success. Directive 2014/95/EU on Non-Financial Reporting (NFR) obliged all member states to pass national legislation by December, which requires large public interest entities to disclose an annual report on risks in business operations related to human rights and environmental concerns. Two of the largest EU economies, France and Germany, faced tough parliamentary battles that ultimately limited the number of firms with reporting requirements, largely due to business continuity concerns. Conversely, some smaller EU economies, such as Denmark, quickly adopted CSR regulations with a broader scope. These developments revealed important differences in NFR legislation and industry priorities across EU member states that are likely to complicate the compliance efforts of more than 6,000 companies publishing their first reports on FY2017 in 2018.

BSI also noted potential issues of compliance with the supply chain transparency provision of the 2015 UK Modern Slavery Act. The landmark CSR legislation on forced labor requires UK-based corporations with an annual turnover of at least 36 million pounds to prepare a slavery and human trafficking statement for each financial year. Transparency reports submitted voluntarily before the first deadline showed that only about six percent of companies complied with three main criteria listed in the act’s statutory guidance: approval by the board of directors, signature by a director-level manager, and publication on the company’s home page. This figure suggests that initial compliance with the UK Modern Slavery Act is likely to be low once all companies release their statements on FY2016 by mid-2017.

Criteria: Was Statement Approved by Board of Directors?

- Compliant: 30%
- Non-Compliant: 70%

Criteria: Was Statement Signed by a Director-Level Manager?

- Compliant: 49%
- Non-Compliant: 51%

Criteria: Does the Company Have a Link to the Statement on Their Home Page?

- Compliant: 50%
- Non-Compliant: 50%

Criteria: Is the Company Compliant With All Three Criteria?

- Compliant: 6%
- Non-Compliant: 94%
Security and Business Continuity Impacts of the Turkish Coup Attempt

A faction within the Turkish military launched a failed coup against the reigning Justice and Development Party (AKP) government on July 15, 2016, leading to significant security and business continuity impacts in the short and long terms. The Turkish government blamed the attempt on supporters of Fethullah Gulen, a U.S.-based Muslim cleric. During and immediately after the coup, business operations in several major Turkish cities, including Ankara and Istanbul, were severely impacted by fighting between pro-coup and anti-coup security forces. The government briefly closed the Bosporus Strait during the coup attempt, while road blockages and flight suspensions imposed additional disruption on businesses in the country. Several countries, including Iran, Georgia, and Bulgaria, closed their land borders with Turkey during the unrest.

In the medium and long term, the Turkish government’s response to the coup attempt has exacerbated security and business continuity threats in the country. Days after the coup, the government began widespread purges of numerous government departments and agencies across virtually every ministry, as well as the military, police, and intelligence services. The firing of over 20,000 security service officers is likely to diminish those agencies’ capacity to fulfill their functions. As one of the major components of the “Balkan route” used by drug traffickers to smuggle heroin from South Asia and Iran to Europe, the impacts of the purge on the capabilities of Turkey’s police and customs services heighten the risk of drug smuggling in cargo transiting the country. Turkish counterterrorism efforts face a similar challenge, with deep cuts to the military and intelligence service likely to compromise the government’s ability to effectively combat Islamist militant groups like the Islamic State in Iraq and Syria (ISIS) or contain Kurdish separatist groups like the Kurdistan Workers’ Party (PKK) or Kurdistan Freedom Hawks (TAK). The increased pace of ISIS attacks following Turkey’s initiation of a major intervention in northern Syria in August 2016, along with the use of supply chain terrorist attacks by Kurdish separatist militants, exacerbate the threat posed by the diminished capacity of Turkey’s security apparatus.

Aftermath of the Turkey Coup Attempt:
By the Numbers

100,000+ officials removed from public duty, including:
   22,000 police officers
   200 customs officers
   2,700 judges
4,300 companies and institutions closed
200 senior business leaders and others targeted in asset seizures
70,000 investigated, 32,000 arrested in total
38,000 prisoners pardoned
Introduction

Supply chains in the Americas faced a wide range of risks related to security, corporate social responsibility, and business continuity in 2016. Globalizing and diversifying cartels and smaller gangs in Mexico posed additional threats to otherwise unaffected supply chains, while another increase in the rate of cargo theft in major countries like Brazil forced businesses to adopt often-costly security measures. In addition, political instability in Venezuela and Brazil created both security and business continuity risks, while Peru’s failure to improve its corporate social responsibility record underscored another aspect of risk that BSI recorded in the Americas last year. However, not all risk in the Americas increased in 2016, and countries in the region including Colombia, Ecuador, and Panama recorded reductions to security, corporate social responsibility, and business continuity threats.

Fragmenting Cartels in Mexico and Supply Chain Impacts

Many of the traditionally-strong illegal drug cartels in Mexico fragmented into smaller, weaker gangs in 2016 and were forced to expand operations globally and diversify their sources of income, creating additional impacts on supply chains around the world. The fragmentation of cartels like Los Zetas occurred primarily due to increased pressure from law enforcement agencies in recent years and the government’s successful targeting of gang leaders. As the Mexican government continued to remove the leaders of these large cartels, lower ranked members broke off and formed their own smaller and weaker criminal groups that lacked the power to control major drug routes and supplies. As a result, BSI noted a globalization and diversification of Mexican gang operations in 2016, creating additional risks for supply chains in both the country and abroad.

The globalization of Mexican cartel activity is not a new phenomenon; however, BSI noted an uptick in criminal activities headed by Mexican nationals around the world in 2016. The smaller criminal groups that broke away from larger cartels generally lack the power to control major drug routes and supplies. This lack of power has forced groups to establish their own drug trafficking routes and sources in major producing or transshipment countries, including Colombia, Panama, Argentina, and Uruguay, where BSI recorded arrests of Mexican nationals tied to cartels in 2016.

The shifting trends in the illegal drug market are also a primary driver of Mexican cartel expansion abroad. With heroin and methamphetamine consumption rising, cartels are now required to obtain new sources for precursor chemicals and are actively seeking out partners in countries with poor chemical control regulations like China and Argentina. In addition to seeking out sources of precursor chemicals, cartels in Mexico are also now targeting new markets for their increased methamphetamine production, especially as street prices for the illegal drug fall in the United States. This potentially exposes an increased number of cargo shipments to the threat of illegal drug introduction.

Locations of Notable Arrests of Mexican Nationals on Drug or Related Crimes, 2014-Present

Origins of Recently-Seized Precursor Chemical Shipment
Another result of the fragmentation of Mexican cartels is the diversification of these smaller groups’ criminal activities, with cargo theft and extortion representing two alternative sources of income. These smaller gangs are stealing cargo to supplement lower income from illegal drug smuggling, and this insecurity is ultimately leading to higher shipping costs as transporters pass increased security expenditures to consumers.

Potential Risk of Cloud Information Network Exploitation for Cargo Theft

In addition to the case described below, BSI has described a number of incidents in the past few years in which criminals took advantage of poor information security to infiltrate supply chains. In one case, pirates hacked into company shipping data to identify containers carrying high-value cargo on container ships, which they then stole. In another notable case, drug traffickers at the port of Antwerp, Belgium used phishing emails and thumb drives infected with malware to gain access to computer networks and track incoming containers loaded with drugs. As more parts of the supply chain become ‘smart,’ constantly feeding their data into external systems, the risk of these types of crimes will increase. Internet-connected devices from GPS trackers to warehouse inventory management trackers can be compromised in order to gain crucial information about the location and content of shipments ahead of thefts or smuggling operations.

In many of these cases, criminals take advantage of poor employee understanding of information security to gain access rather than pure ‘hacking’ into the systems. Ensuring that all employees have at least a basic awareness of information security, and understanding that IT security is relevant for all employees, can help guard against these risks. The possible downsides of internet connectivity should be weighed against the benefits when considering adding new technology to the supply chain.

The risk of thieves exploiting computer networks to carry out thefts is a distinct possibility in Mexico. At least one major transportation provider recently indicated that their cloud information network had been penetrated. This penetrated network includes data on routes, the type of merchandise carried, and shipment schedules. The company did not explicitly indicate that the stolen data was used in any thefts, however. But a recent study reveals that computer information networks in Mexico face a significant risk of penetration, suggesting that it is highly possible that thieves could utilize hacking to facilitate cargo thefts.

Cartels and breakaway gangs in Mexico are also increasingly turning to extortion for revenue, and the extent of the crime has forced some companies to shutter operations or at a minimum relocate. Criminals are extorting cargo truck drivers for safe passage, with one major industry group reporting that drivers have to pay gangs to operate in Mexico State. Official statistics identify Jalisco, Mexico State, Mexico City, Nuevo Leon, and Puebla as hotspots for all types of extortion. Cargo transportation associations specifically identify the hotspots of Mexico State, Queretaro, Tamaulipas, and Zona Bajo (including parts or all of Aguascalientes, Guanajuato, Jalisco, Michoacán, and San Luis Potosi).
Cargo Theft Remains a Primary Issue in the Americas

In virtually every year, cargo theft occurs more in the Americas than any other region in the world. Bolstered by top-ranked Brazil, which saw a dramatic increase in cargo theft rates despite already ranking first in the world for total number of cargo theft incidents, countries including Mexico and Venezuela also recorded upticks in 2016. However, mixed success of law enforcement efforts in the Americas also led to reductions in cargo theft rates in some countries, particularly in Colombia, where BSI recorded a decrease in incidents last year. Law enforcement efforts conducted in these two countries provide hope that coordinated efforts to combat cargo theft, if implemented correctly, can be effective at reducing the risk of cargo theft.

Although official statistics for the whole country have not yet been published at the time of writing, Brazil was again on pace to record an increase in cargo theft incidents in 2016. BSI recorded the most dramatic increase in cargo theft rates in Rio de Janeiro last year. Already the second largest hotspot for cargo theft in the country, officials in Rio de Janeiro reported a total of 9,870 cargo theft incidents in 2016, 36 percent more incidents than those recorded in the state in 2015. BSI attributes this increase in cargo theft incidents in Rio de Janeiro to several possible factors, including: the state’s poor economy, which may have driven thieves, and everyday citizens, to carry out thefts in order to supplement their poor income; increased law enforcement efforts in Sao Paulo; and a decrease in enforcement capabilities due to financial restrictions in Rio de Janeiro. In addition, BSI noted that organized criminal groups in the state that previously only trafficked illegal drugs are now carrying out cargo thefts in order to obtain additional funding for their drug trafficking operations.

Final statistics for Sao Paulo in 2016 also have not been published at the time of writing. However, officials in the state recorded a 10.4 percent increase in cargo theft incidents between January and September of last year, and it is likely that this upward trend continued in the final quarter of 2016. The year-over-year increase in cargo theft incidents in both Rio de Janeiro and Sao Paulo, combined with minimal efforts to curb the rate of theft, suggests that Brazil could see another year of increased cargo theft in 2017.
Not all countries in the Americas saw an increase in cargo theft, and effective law enforcement operations in Colombia resulted in a decreased rate of theft in 2016. BSI recorded a 31.8 percent decrease in the number of cargo theft incidents in Colombia during the first nine months of 2016 compared to the same period of time in 2015. Several factors contributed to this drop, including increased police patrols, an awareness campaign that involved passing out informational pamphlets and providing tips on how to avoid thefts, and the peace agreement between the Colombian government and the Revolutionary Armed Forces of Colombia, and a further decrease in cargo theft can be expected for the country in 2017.

**The FARC Peace Agreement and Implications for Supply Chains in Colombia and Abroad**

The government of Colombia and the leaders of the Revolutionary Armed Forces of Colombia (FARC) signed a peace agreement on December 1, 2016, signaling an end to over 50 years of conflict between the two parties. The agreement will likely create both positive and negative implications for supply chains in the country and abroad. A decrease in the risk of supply chain terrorism will likely be the most immediate impact. The FARC frequently targeted and utilized supply chains for attacks in their attempt to undermine the Colombian government. However, the FARC now has less than six months to demobilize, a process that includes handing over all weapons and forming a legitimate political party, which all but ensures an improvement in political stability.
While the decreased risk of supply chain terrorism and improved political stability in Colombia are positive impacts of the peace agreement, the demobilization of the FARC will not reduce the risk of illegal drug introduction into cargo in the country. The FARC controlled an estimated 70 percent of Colombia’s coca crops, and the United States Drug Enforcement Administration estimated that there was a 67 percent spike in cocaine production in Colombia in the lead up to the signing of the peace agreement. This spike in cocaine production was likely the FARC’s last attempt to earn as much money as possible from the illegal drug trade before ending their involvement. However, some dissident factions of the FARC are either ignoring the agreement and are continuing drug trafficking operations or have joined other criminal groups in the country, particularly the strengthening Los Urabenos, which has moved into many of the coca growing areas formerly controlled by the FARC. Los Urabenos, which primarily used to only traffic cocaine abroad, now controls all aspects of the trade and possesses a massive surplus of product, leading to a worldwide increase in cocaine seizures that is also likely to continue into 2017.

**Increased Risk of Cocaine Introduction into Cargo Shipments Originating in Latin America**

BSI noted a significant increase in seizures of cocaine from cargo shipments around the world in 2016, as smugglers in Latin America, driven primarily by the dramatic increase in cocaine production in Colombia, trafficked greater quantities of the drug abroad. Authorities in Colombia, for example, seized 378.3 tonnes of cocaine in 2016, almost 50 percent more than what officials seized in 2015. Elsewhere, Panamanian authorities seized 8.4 percent more illegal drugs, Ecuadorian officials seized 13.8 percent more illegal drugs, and Bolivia seized about 42 percent more illegal drugs in 2016 compared to 2015. Cocaine represented 89.1 percent and 85.8 percent of the total illegal drugs that officials seized in Panama and Ecuador in 2016, respectively.

BSI also noted a significant increase in illegal drug introduction into cargo in Brazil in 2016, prompting the SCREEN Intelligence Team to increase the threat rating for illegal drug introduction into cargo in the country. The increased risk of illegal drug introduction into cargo in Brazil is a trend that has continued into 2017. In 2016, officials at many ports in the country reported large seizures of cocaine from sea container shipments that often dwarfed the total amount of cocaine seized at the facility in 2015.

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**Increased Illegal Drug Seizures in Select Countries**

- **Colombia** - Origin
  - Sea: ~50%
  - Truck: 8.4%
  - Air: 13.8%
- **Panama** - Origin
  - Sea: ~36%
  - Truck: ~50%
- **Ecuador** - Origin
  - Sea: ~42%
  - Truck: 36%
  - Air: 36%
- **Brazil** - Origin
  - Sea: ~42%
  - Truck: 42%
  - Air: 42%
- **Peru** - Origin
  - Sea: ~50%
  - Truck: 50%
  - Air: 50%
Economic factors in a country can often be used to aid in predicting cargo theft trends. Colombia is a major example of this trend, where GDP has generally increased over the last decade-and-a-half while the rate of cargo theft in the country conversely decreased. However, other factors, such as rates of criminality and law enforcement capabilities, also contribute significantly to cargo theft trends and must be taken into account when assessing the risk of cargo theft in a country. Brazil is an example of this phenomenon, where GDP growth was generally positive during the last eight years but cargo theft rates continued to increase. The increasing rate of cargo theft in Brazil highlights the need for a holistic approach to assessing risk within a country.

Destination points for Latin American-produced cocaine also reported higher seizures in 2016. The Port of Antwerp in Belgium, for example, reported record cocaine seizures at the facility in 2016, while the Port of Rotterdam in the Netherlands saw increased seizures of cocaine in 2016 as well. BSI also recorded increased seizures of illegal drugs in other European countries, including France, Italy, and Spain, compared to 2015.

Despite the increase in supply of cocaine and the introduction of new trafficking routes, smugglers tend to target the same types of products and transportation modalities for illegal drug introduction over time. According to BSI data, food and beverage products were involved in 43 percent of all seizures of unmanifested cargo (illegal drugs, weapons, and stowaways) in 2016, the most out of any other type of good. This trend holds true from 2015, when food and beverage products were involved in 44 percent of all seizures. Smugglers also continue to most frequently target the cargo truck modality, representing 57 percent of all seizures in 2016. The sea shipping and air modalities followed with 24 percent and 13 percent, respectively. Again, this trend held true from 2015, with trucking at 60 percent, sea at 26 percent, and air at 11 percent. It is likely that many of these trends will remain consistent into 2017 as well.

Deteriorating Political Stability and Economy Severely Impacting Supply Chains in Venezuela

Supply chains in Venezuela continued to suffer from significant impacts caused by the country’s deteriorating political stability and economy in 2016. With an estimated inflation rate of 800 percent and the continued consolidation of power in the executive branch, BSI noted an increased risk of cargo theft, shortages of inputs, a lack of energy due to drought and poor infrastructure planning, the seizure of whole operations by the government, border closures and restrictions, the allocation of employees to the domestic production of food, and the discontinuation of certain currency notes, all of which had varying security and business continuity impacts on supply chains in the country. In addition, many of these issues led major multinational companies to completely abandon their local operations.
Impeachment, Protests, and Future Prospects of Disruption in Brazil

The ongoing corruption scandal in Brazil involving high-ranking politicians and the country’s semi-public petroleum industry company ultimately led to the impeachment of then-President Dilma Rousseff in 2016 and spurred multiple large protests and other business continuity issues that will linger into 2017 and possibly beyond. The corruption scandal has been unfolding since March 2014 but came to a head last year after investigations implicated then-President Dilma Rousseff. Millions of citizens reacted to the news by holding one of the country’s largest anti-government protests in history last March. Additional large protests followed, often hindering business operations and disrupting transportation, as pressure to impeach Rousseff eventually culminated in her ouster.

The impeachment of Rousseff, however, ultimately had little effect on the corrupt political environment in the country as Michel Temer, the former vice president under Rousseff and now acting leader of Brazil, along with many of his cabinet appointees, also face charges of corruption. In addition, a significant driver behind the pressure to impeach Rousseff stemmed from citizens’ attribution of Brazil’s failing economy to her fiscal policies. Not only does Temer face the challenge of revitalizing Brazil’s poor economy, which itself has been the catalyst of a series of labor strikes by dockworkers and customs officers, but he must do so with a poor approval rating worsened by the announcement of highly controversial spending cuts. The enactment of these spending cuts, along with the introduction of other policies including a potential reform of labor laws, suggests that protests and labor strikes are very likely to occur throughout 2017.

Varying Degree of Improvement in Corporate Social Responsibility Protections in Latin America

BSI recorded varying degrees of improvement in corporate social responsibility protections in Latin America in 2016. Some countries, including Ecuador and Panama, significantly reduced the risk of child labor while other nations in the region, such as Peru, failed to make significant progress in improving human rights and environmental protections.

In 2016, the BSI SCREEN Intelligence Team reduced the rating for the threat of child labor in both Ecuador and Panama due to each country’s sustained efforts to drastically eliminate the problem. In Ecuador, the government reduced the rate of children working in the country from the 16 percent recorded in 2007 to now less than three percent. The Ecuadorian government accomplished this dramatic reduction through several key efforts, including the expansion of access to free education, the implementation of programs designed to change the cultural acceptance of child labor, improving cooperation with private sector entities to jointly combat the problem, and increased regulation of the workplace. These efforts, combined with the country’s relatively improving economy and increasing need for skilled labor, have helped to displace the use of children for labor.
Similarly, the Panamanian government identified the poor enforcement of labor laws as a significant contributing factor to the country’s previously high rate of child labor. The government subsequently improved the labor inspectorate and also approved a new bill early in 2016 that identified additional occupations that were unacceptable for children. As a result of these two actions, the Panamanian government succeeded in reducing the rate of child labor in the country to about just four percent, a number that represents a 50 percent reduction since 2012.

Although most countries in Latin America improved upon their corporate social responsibility record, some nations, particularly Peru, failed to make much headway last year. The threat to corporate social responsibility in Peru was perhaps best underscored in a pipeline burst incident that occurred early in 2016. The pipeline involved in the incident has burst at least 20 times since April 2011, with the latest incident last year resulting in an oil spill that contaminated two waterways used by eight indigenous groups in the region. The fact that this same pipeline, which has burst multiple times in the same proximate area, again ruptured highlights the risk to the environment in Peru due in part to reactive inspections of businesses to ensure compliance with environmental regulations. The pervasive level of corruption in Peru also undermines the rule of law, and favoritism and bribery likely subvert the legal process relating to environmental issues.

In addition to causing environmental harm, the pipeline burst in Peru also created a host of human rights issues as the oil company that operates the pipeline reportedly hired child laborers to help clean up the spill. In response to these reports, the Peruvian labor inspectorate was forced to form a special task force to investigate the site of the oil spill because most labor inspectors in the country are based in major population centers and the pipeline is located in a more remote northern region. Child labor in general also tends to occur most often in rural portions of Peru where agriculture is dominant, and the lack of labor inspectors in these areas prevents the detection and prevention of the practice. While it will likely take broader reforms to improve the country’s corporate social responsibility record, early enactment of anti-corruption laws by new President Pedro Pablo Kuczynski, as well as the passing of a law that strengthens penalties for discrimination, freedom of association violations, and forced labor, suggests that an improvement of human rights and environmental protections is possible for the country in 2017.
Supply Chain Terrorism Threats and Trends

Supply chain terrorism activity increased by virtually every metric in the last year. While the number of supply chain terrorism attacks remained nearly level with the previous year, the relative targeting of the supply chain increased, with the proportion of terrorist attacks involving supply chain targets rising 16 percent compared to terrorism attacks that did not target the supply chain. In addition, supply chain terrorism attacks were more widely distributed than in any previous year, with 38 percent more countries suffering attacks.

Worryingly, terrorist groups have significantly increased attacks against commercial targets, especially non-fossil fuel commodities and modalities, in recent years, with this trend becoming especially pronounced last year. The top 10 countries for supply chain terrorism incidents accounted for $664 billion worth of global exports, including $96 billion of exports to the United States, highlighting the significant volume of international trade at risk of disruption by terrorist groups.

Terrorists’ frequent targeting of the supply chain for physical attacks underlines broader concerns about terrorist exploitation of international trade and commerce. Most of the leading terrorist groups for supply chain terrorism attacks also commonly use other tactics that threaten the security and overall integrity of exported shipments. In many cases, these groups perpetrate attacks specifically to intimidate businesses into paying extortion fees. Leading supply chain terrorism groups are also highly active in contraband smuggling, cargo theft, and kidnapping schemes. More details about these groups and their activities can be found in the accompanying graphic.
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