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2008 Global Logistics Guide

Intuitive technologies and diligent supply chain strategies are rapidly redefining how businesses approach offshore expansion. Shifts in demand and supply require agile supply chains, and companies are increasingly less gun shy about evaluating global sourcing opportunities more frequently.

Whether seeking new markets to manufacture in or sell to, realigning transportation and distribution channels, balancing sourcing options to avert supply chain risk, or better rationalizing total landed costs, global companies need to map their specific business needs with available resources and expertise. *Inbound Logistics'* fourth-annual Global Logistics Guide presents a good starting point as you evaluate potential sourcing locations.

IL identifies global hotspots as excelling in three key areas:

- T: TRANSPORTATION INFRASTRUCTURE** – The density and breadth of airport, port, and road infrastructure
- I: IT COMPETENCY** – The progressiveness of information and communication technology investment
- P: PEOPLE POWER** – The strength and expertise of homegrown logistics talent and government leadership

We refer to this logistics potential benchmark as the TIP Quotient.

Businesses may also consider a country's logistics potential by the amount of foreign direct investment (FDI) the United States is pumping into its economy. Though FDI alone does not translate to economic development promise, countries with good transportation infrastructure, IT capabilities, logistics talent, government leadership, and favorable business policies invariably capture a bigger piece of the American pie.

Intangibles are at play as well. Our X-Factor provision takes into account other factors such as political stability, labor availability, and foreign investment policy that may give businesses greater pause, or greater purpose, as they evaluate a country's logistics capabilities.

If you have questions or suggestions about our methodology and selections, please email: editor@inboundlogistics.com

METHODOLOGY:

Countries are ranked on three criteria: Transportation infrastructure (1 to 4 points), IT competency (1 to 3 points), and People power (1 to 3 points). Points are totaled for all categories – taking into consideration X-Factor +/- points – to decide final ranking; 10 is highest, 3 is lowest.

* The Global Information Technology Report published by the World Economic Forum ranks 122 countries by their capacity to exploit global information and communications technology (ICT) developments. It uses the Network Readiness Index (NRI) to measure the degree of preparation of a nation or community to participate in and benefit from ICT developments.

SOURCES: U.S. Department of State; World Port Rankings, American Association of Port Authorities; Airports Council International; World Economic Forum's Growth Competitiveness Index; World Economic Forum's Global Information Technology Report; Central Intelligence Agency's World Fact Book; Bureau of Economic Analysis, U.S. Direct Investment Abroad

The Americas

Canada

GDP: \$1.4 trillion

EXPORTS: \$440 billion

IMPORTS: \$394 billion

FDI (2006): \$246 billion

SCORE	T	I	P	X
8	3	3	3	-1



FACTOR: IT and skilled labor shortage

The United States' largest trading partner and border confidant is among the foremost global economies and is well prepared to capture more Asia-North America trade, especially as U.S. West Coast container volumes balloon. With \$1.5 billion worth of goods crossing the U.S./Canada border daily, the two economies are inherently linked. The Port of Vancouver remains an important cargo port for both Canada and the United States, and the emerging promise of Prince Rupert, combined with an extensive and underutilized railroad network, could be a major boon for the country's economic prospects. In 2006, U.S. companies contributed \$246 billion in direct investment to Canada, up from \$166 billion in 2002. Still, unbalanced economic growth (as a result of Western Canada's Asian-fueled development), dependence on U.S. trade, increasing immigration, and shortage of skilled labor are concerns the government needs to address.

Mexico

GDP: \$886 billion

EXPORTS: \$268 billion

IMPORTS: \$279 billion

FDI (2006): \$85 billion

SCORE	T	I	P	X
6	2	1	2	1



FACTOR: Commitment to transportation investment and proximity to U.S. markets

Mexico's economic reckoning continues to grow as U.S. companies face difficulties getting product to market through congested and capacity-constrained chokepoints. President Felipe Calderon has made fighting corruption and creating bureaucratic transparency critical initiatives in bringing more credibility to Mexico's economic blueprint. The country's coastal transport infrastructure, namely the ports of Manzanillo, Lazaro Cardenas, and Veracruz, are fast gaining recognition as major container conduits, but questions still remain about the quality of roads beyond the developed northern region. A five-year, \$37-billion public-private funding package, recently announced by Calderon, will help stimulate improvements across all modes.

Brazil

GDP: \$1.3 trillion

EXPORTS: \$159 billion

IMPORTS: \$116 billion

FDI (2006): \$33 billion

SCORE	T	I	P	X
4	2	1	1	0

Brazil remains the heart of South American trade thanks in large part to a strong agricultural and export-oriented economy. President Luiz Inácio Lula da Silva has been proactive in growing the country's trade tentacles on the continent as well as facilitating agreements with China, for example, and promoting public-private partnerships to stimulate much-needed funding for transportation infrastructure investment. Some U.S. businesses see Brazil as another offshore manufacturing option that could someday rival the Asia Pacific. Abundant and cheap labor and proximity to U.S. markets weigh in its favor. Manaus, a river port city and transportation hub in Northern Brazil, is attracting prominent manufacturers such as Nokia, Samsung, Sony, and Essilor. Still, historically restrictive trade and labor legislation and poor inland road infrastructure are hurdles to widespread sourcing activity.

Chile

GDP: \$161 billion

EXPORTS: \$66 billion

IMPORTS: \$42 billion

FDI (2006): \$10 billion

SCORE	T	I	P	X
4	1	2	1	0

Restrictive labor laws and high workforce turnover have created above-average unemployment rates in recent years; resulting in an abundant, if unstable, labor pool. Trade liberalization, including a trade agreement with the United States in 2004, has helped Chile attract foreign direct investment – ranking 28th globally and third in Latin America to Mexico and Brazil. It is also well positioned in terms of IT infrastructure, ranking 31st in the world and tops in Latin America, according to the World Economic Forum's Network Readiness Index. But hurdles remain. Transportation is still largely undeveloped and issues with intellectual property theft and counterfeiting have placed Chile on the U.S. Trade Representative's Priority Watch List.

- T** Transportation Infrastructure
- I** Information Technology
- P** People Power

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Europe & Russia

- T** Transportation Infrastructure
- I** Information Technology
- P** People Power

The Netherlands

GDP: \$755 billion
 EXPORTS: \$465 billion
 IMPORTS: \$402 billion
 FDI (2006): \$216 billion

SCORE	T	I	P	X
8	4	3	2	-1



FACTOR: Labor shortage and capacity constraints

The Port of Rotterdam's unexpected double-digit spike in container volume in 2007 serves as an appropriate example of the Netherlands' economic expectations. Despite concerns over capacity limitations and congestion at the ports in Rotterdam and Amsterdam, sound transportation infrastructure, a favorable regulatory and customs environment, competitive transport rates, well-developed inter-modal capabilities, and a skilled labor force make the country a top logistics location. And U.S. companies have taken notice. In 2006, the Netherlands collected \$216 billion in U.S. FDI, making it the third most popular investment destination for U.S. capital after the United Kingdom and Canada. With Asian container volumes surging, and an unemployment rate among the lowest in Europe, labor availability could become an obstacle to further economic growth.



France

GDP: \$2.5 trillion
 EXPORTS: \$559 billion
 IMPORTS: \$601 billion
 FDI (2006): \$66 billion

SCORE	T	I	P	X
7	3	2	2	0

As the sixth-largest economy in the world, France touts two ports (Le Havre and Marseilles) among the world's top 50 in cargo tonnage and Paris De Gaulle airport ranks 11th in total air cargo tonnage. But France does not command the U.S. FDI clout that Switzerland, Belgium, the Netherlands, Germany, and Luxembourg do. While privatization has been an ongoing goal for the country as it attempts to transition to a freer market-oriented economy, government control over transportation and industry sectors still remains apparent. Despite ranking high in workforce productivity, widespread and well-publicized opposition to labor reform is an obstacle that President Nicolas Sarkozy's government is working to overcome.

Belgium

GDP: \$443 billion
 EXPORTS: \$328 billion
 IMPORTS: \$321 billion
 FDI (2006): \$52 billion

SCORE	T	I	P	X
7	4	2	2	-1



FACTOR: Reliance on imports and regional trade

Belgium's location in Central Europe, combined with booming container trade between Europe and Asia and the emerging manufacturing appeal of Central and Eastern Europe (CEE) and Russia, are strong indications of the country's economic development prospects. For a country the size of Maryland, its multimodal transportation resources are beyond compare. The Port of Antwerp, which surpassed eight million TEUs in 2007 – a 16-percent increase over 2006 – is complemented by the emerging presence of Zeebrugge (two million TEUs, 24 percent increase over 2006). Belgium's Brussels and Liege airports are among the world's top 50 in cargo tonnage and a dense network of roads, railways, and canals facilitate cargo transportation capabilities through the country. On the downside, Belgium's economy is heavily focused on regional trade. With few natural resources, it relies heavily on importing these materials, then finishing them for export. The country is looking to expand its global trade partnerships to account for this shortcoming.

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Russia

GDP: \$1.3 trillion
 EXPORTS: \$365 billion
 IMPORTS: \$260 billion
 FDI (2006): \$10 billion

SCORE	T	I	P	X
5	1	1	2	1



FACTOR: Sustained economic growth and imminent entry into the WTO

Echoes of Russia's former regimes continue to shade the country's economic identity. Transportation infrastructure still remains nebulous at best and questions about government leadership and graft are recurring. The country also lacks adequate IT resources, ranking 70th in the World Economic Forum's Network Readiness Index. Despite these considerable challenges, the maturation of the Eastern European market will only augment opportunities for Russia to get up to speed in terms of infrastructure and industrial development. Economic growth has been on an upward tick for nine straight years and U.S. confidence in Russia as a commercial interest is evolving—FDI has grown nearly tenfold since 2002 to \$10 billion in 2006. The United States has also been influential in paving the way for Russia's entrance into the World Trade Organization (WTO), although recent debate between EU countries over economic and human rights concerns has stymied progress.

Estonia

GDP: \$21 billion
 EXPORTS: \$11 billion
 IMPORTS: \$15 billion
 FDI (2006): \$22 million

SCORE	T	I	P	X
6	1	3	2	0

Estonia's free-market economy is fast turning heads and becoming the gem of Eastern Europe. Current 2007 estimates peg GDP growth at 7.3 percent—well above the EU average of 2.9 percent. The government's sound fiscal approach since its accession into the EU in 2004, complemented by strong IT infrastructure development, an emerging electronics sector, pro-business investment policies, and energy interdependence has created a foundation for stable economic growth. Positioned strategically between Europe and Russia, on the coast of the Baltic Sea, Estonia could become a central distribution pivot for Asia-Europe trade.

Germany

GDP: \$3.3 trillion
 EXPORTS: \$1.4 trillion
 IMPORTS: \$1.1 trillion
 FDI (2006): \$99 billion

SCORE	T	I	P	X
8	4	3	2	-1



FACTOR: Ongoing efforts to integrate East and West and rising social welfare costs

If businesses think integrating disparate business partners and supply chains is difficult, imagine the challenges of trying to mesh two completely unique economies. Germany, now nearly two decades removed from reunification, is still tinkering with labor policies and social welfare programs to rationalize gaps between East and West. Long a bastion of manufacturing productivity, increasing competition from "cheaper" Eastern European neighbors is siphoning some industrial activity. But Germany is geographically and tactically positioned to fill that void with further investments in logistics and distribution-related activities. The Port of Hamburg rivals Rotterdam as Europe's busiest container port and Frankfurt, Lufthansa's hub, is Europe's top cargo airport.

Switzerland

GDP: \$414 billion
 EXPORTS: \$201 billion
 IMPORTS: \$190 billion
 FDI (2006): \$90 billion

SCORE	T	I	P	X
7	2	3	3	-1



FACTOR: Zurich dropped out of the world's top 50 cargo airports

Switzerland ranks second in the World Economic Forum's Global Competitiveness Index, largely due to its strong and stable business environment, geographic location, and diverse cultural makeup. Transportation remains a top priority in the Alpine country and investments in infrastructure across all modes will likely feature importantly as manufacturing and logistics activities in Eastern Europe continue to evolve. Centrally situated in Europe, product moving north/south inevitably has to go through Switzerland, and the country's already efficient surface-bound cargo capabilities will be augmented when the 35-mile-long Gotthard Base Tunnel through the Alps is completed in 2015. Thanks to strong high-tech, pharmaceutical, and financial sectors, Switzerland is among the European leaders in U.S. FDI, accumulating more than \$90 billion in capital investments in 2006.

INDIAN OCEAN

China

GDP: \$3.2 trillion
 EXPORTS: \$1.2 trillion
 IMPORTS: \$917 billion
 FDI (2006): \$22 billion

SCORE	T	I	P	X
7	3	1	2	1



FACTOR: Government leadership

China remains a primary focus of U.S. offshore interests and the government's control over investing in and building transportation infrastructure is unrivalled. As its coastal manufacturing regions become more developed and relatively more expensive, businesses are looking farther inland and westward to mine even cheaper production capacity. This means U.S. businesses have to hurdle the challenges of transporting product from China's less developed hinterland to its ports, which adds time and cost to the supply chain. Concerns over product quality and intellectual property theft are recurring, but will unlikely stem the flow of trade from China to the United States. The country's growing middle class also presents a ripe opportunity for businesses to begin targeting China as a sell-to market.

Thailand

GDP: \$226 billion
 EXPORTS: \$143 billion
 IMPORTS: \$122 billion
 FDI (2006): \$8 billion

SCORE	T	I	P	X
5	2	2	1	0

As a primarily export-oriented country, Thailand's diverse manufacturing sectors – specifically high-tech consumer products, furniture, canned food, toys, and jewelry – are driving the country's economic engine. Its transportation infrastructure, which includes Bangkok Airport and the Port of Laem Chabang, has grown to support these industries. While the government is looking to liberalize trade policies to spur more foreign investment, political instability, as evidenced by a military coup in 2006, has investors wary. Continued expansion of transportation, utility, and communication networks to match export volumes will be critical initiatives as the government looks to solicit more foreign interest.

United Arab Emirates

GDP: \$190 billion
 EXPORTS: \$152 billion
 IMPORTS: \$95 billion
 FDI (2006): \$5 billion

SCORE	T	I	P	X
6	3	2	2	-1



FACTOR: Dependency on oil, the "war effect," and high real estate costs

As elsewhere in the Middle East, privatization and diversification have been primary drivers as the United Arab Emirates (UAE) looks toward transportation and logistics development to attract a better balance of industries. Dubai ranks 17th in the world in air cargo tonnage and its port is ninth in container volume. The planned development of Dubai Logistics City and a new cargo airport at Jebel Ali – which will be larger than London's Heathrow and Chicago's O'Hare combined – are drawing interest from global businesses seeking strategic distribution hubs. Much of Dubai's current growth, in terms of cargo volume and infrastructure development, is largely a result of the war in Iraq and ongoing construction activities in the country, which bears questioning whether UAE's fast-paced growth is sustainable.

India

GDP: \$1 trillion
 EXPORTS: \$141 billion
 IMPORTS: \$224 billion
 FDI (2006): \$9 billion

SCORE	T	I	P	X
6	2	1	3	0

As U.S. businesses mull sourcing and outsourced manufacturing options in Asia, India is a perennial target in large part due to its mature business process outsourcing (BPO) sector, available and educated labor force, and English language proficiency. Foreign investment to date, however, has been stifled by poor inland infrastructure and prohibitive regulatory bureaucracy. U.S. FDI was a relatively paltry \$9 billion in 2006 – merely double what U.S. businesses are investing in Trinidad and Tobago. Ongoing government reform has helped facilitate foreign investment in the country, but transportation issues are still problematic. For the short term, businesses will continue to leverage third-party resources to make inroads into the Indian market as infrastructure development chases demand.

INDIAN OCEAN



South Korea

GDP: \$982 billion	SCORE	T 3
EXPORTS: \$372 billion	8	I 3
IMPORTS: \$357 billion		P 2
FDI (2006): \$22 billion		X 0

North Korea, once a liability, may soon prove to be an economic stimulus for South Korea. If the Communist regime recognizes the huge opportunity that lies in following China's example and opening up its borders to foreign business, and not just foreign orchestras, South Korea's fortunes as a manufacturing hub may grow considerably beyond its current capacity. Already, its transportation capabilities rival that of regional trade peers, with four ports and one airport among the world's top 50. U.S. FDI has doubled since 2002 to more than \$22 billion in 2006. IT infrastructure development is equally strong, as the country ranks 19th on the World Economic Forum's Network Readiness Index.

Japan

GDP: \$4.4 trillion	SCORE	T 4
EXPORTS: \$666 billion	8	I 3
IMPORTS: \$571 billion		P 2
FDI (2006): \$92 billion		X -1



FACTOR: Aging workforce, capacity and congestion issues

A legacy in manufacturing innovation has paved the way for Japan's status among the world's elite economies. Its high-tech and automotive export industries have helped shape a transportation network that boasts seven ports among the world's top 50 in cargo tonnage and three airports that rank in the top 25 in terms of airfreight volume. Japan's government has become more aggressive in investing capital to diversify industry sectors after years of fiscal conservatism following its economic bubble burst. U.S. direct investment is robust at more than \$90 billion in 2006, second in Asia to Australia. Capacity limitations, congestion, an aging workforce, and increasing competition from other Southeast Asian countries are unavoidable obstacles to trade expansion.

Taiwan

GDP: \$376 billion	SCORE	T 3
EXPORTS: \$247 billion	8	I 3
IMPORTS: \$219 billion		P 2
FDI (2006): \$16 billion		X 0

Taiwan's sovereignty from China is a frequent topic of discussion and one that remains in question – to China. Less obscure is the country's economic well being. With GDP growing at a five-percent clip and unemployment less than four percent, the island "republic" commands robust control over high-tech manufacturing and trade within the region. As labor-intensive manufacturing jobs migrate to the mainland, Taiwan has successfully transitioned to more value-added, technology-focused industries. On the transport side, Taipei serves as the cargo base for EVA Airways and China Airlines and ranks 13th in the world in cargo tonnage; the Port of Kaohsiung, which broke the 10-million-TEU plateau in 2007, is among the world's top-10 container ports.

The Middle East & Asia

Singapore

GDP: \$154 billion	SCORE	T 4
EXPORTS: \$451 billion	9	I 3
IMPORTS: \$396 billion		P 3
FDI (2006): \$60 billion		X -1



FACTOR: Southeast Asian competition and vulnerability to global economic shifts

As a former British trading colony, Singapore's well-educated, English-speaking, transport-anchored economy is perfectly adapted to global trade. Situated in close proximity to China and other burgeoning Southeast Asian markets and trade lanes, it is arguably the world's busiest and most developed cargo hub. Singapore's port ranks number one globally in container throughput and its airport is ninth in airfreight tonnage. On the downside, because Singapore is so intrinsically tied to global shifts in demand and supply and therefore economic recessions, the government is trying to create a more stable industrial base beyond technology manufacturing to include pharmaceuticals and other niche sectors.

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- I** Information Technology
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