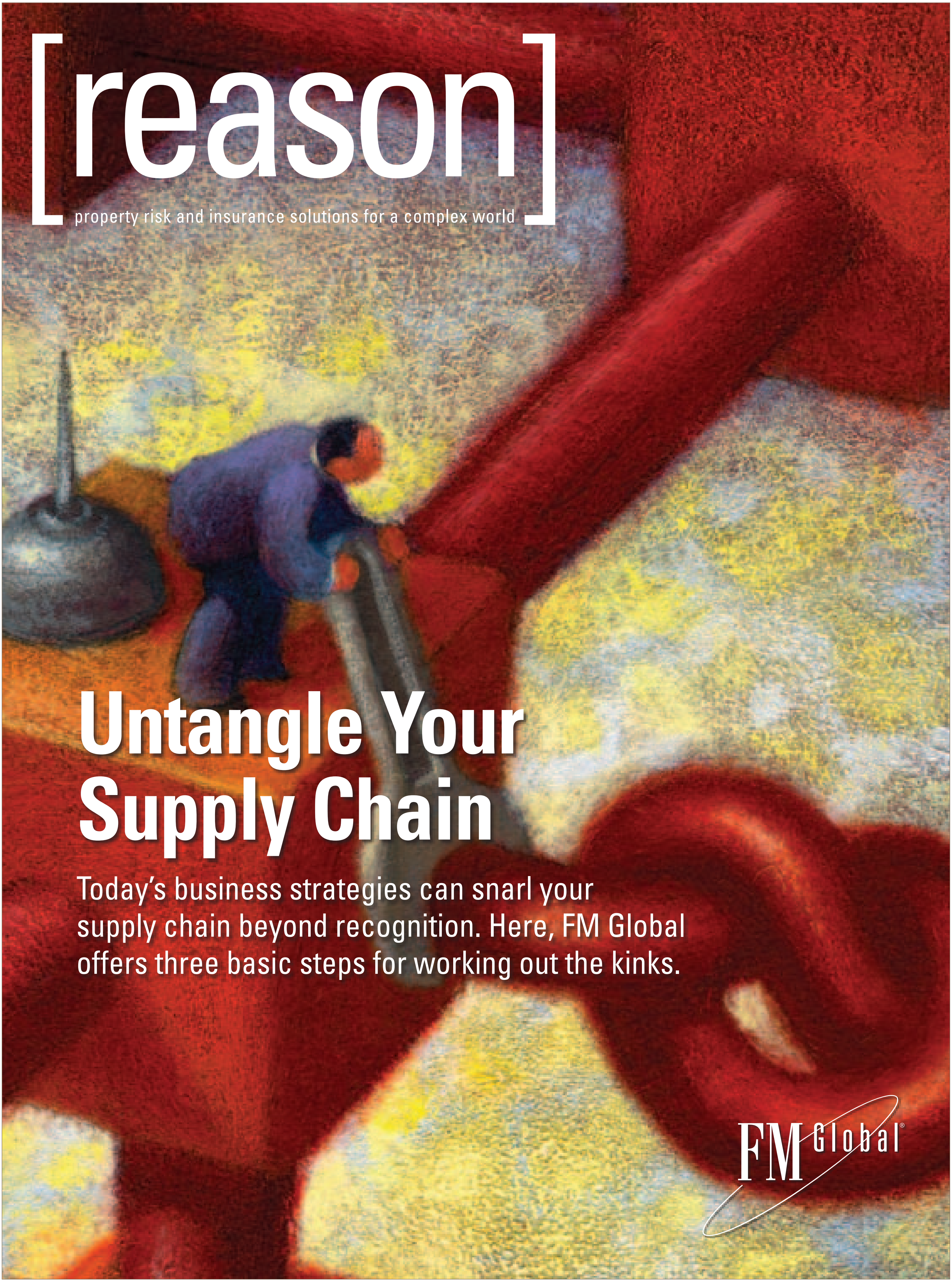
reprinted from issue 4 : 2008



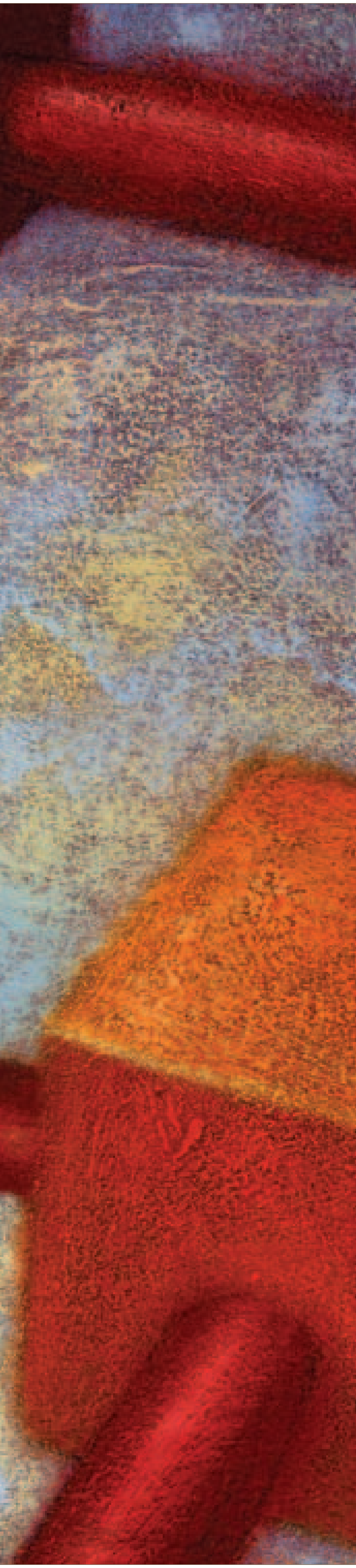
[reason]

property risk and insurance solutions for a complex world

Untangle Your Supply Chain

Today's business strategies can snarl your supply chain beyond recognition. Here, FM Global offers three basic steps for working out the kinks.

FM Global



Untangle Your Supply Chain

Today's business strategies are great for minimizing costs and increasing profitability. They can also snarl your supply chain beyond recognition. Here, FM Global offers three basic steps for working out the kinks.

"Like a heart attack that cuts off the flow of blood," Georgia Institute of Technology (USA) Professor Vinod Singhal has said, "a supply chain glitch cuts off the flow of information or supplies. And, similar to a heart attack, it has lasting effects on a company's health."

In a 2005 study, Singhal and University of Western Ontario (Canada) Associate Professor Kevin Hendricks calculated that it can take at least two years for a company to recover from a supply chain failure. Indeed, with the proliferation of lean supply chains, the financial impact of a disruption has undoubtedly grown. Yet Marsh, in a recent study, found that seven out of 10 risk managers at companies based in North America believe their supply chain risk has risen since 2005, while only 35 percent considered their companies to be "moderately effective" at managing this risk.

Interestingly, geopolitical, regulatory, financial and other risks tend to dominate the supply chain conversation; supplier property risk has been a potential blind spot—this despite the fact that enhancing the physical risk quality of a supply chain builds resiliency. With this in mind, we offer the following advice on identifying, analyzing and mitigating this risk, so you can keep the arteries of your chain clear and profitable.

[reprinted from issue 4 : 2008 of *Reason* magazine.]

1 Supplier identification and prioritization

Your company may have a few suppliers or perhaps hundreds. How will a disruption along that chain, somewhere in that constellation of participants, affect the profitability of your business? To understand your potential vulnerabilities, you must first understand your supplier network—how each supplier is connected, not only to your operations, but also to other suppliers.

The first step is to identify key suppliers, which requires a thorough analysis of your revenue streams, and a focus on the most significant in terms of current income as well as future strategic growth. Keep in mind that a product's profitability is a better indicator than the size of the revenue stream alone. After you determine the key suppliers that drive the selected revenue streams, you'll want to evaluate, for each supplier, alternative sourcing options and, using that information, winnow the list of suppliers down to those that are multiple-, single- and sole-sourced. Because supply chain analysis can grow onerous quickly, multiple- and single-sourced suppliers with confirmed, adequate alternatives and having no notable concerns may be exempt from further analysis; the goal is to evaluate only the suppliers presenting the greatest risk to your organization.

Suppliers should then be prioritized by their financial impact to your organization—what are the products or services that would not be sold in the event of a supplier loss? One way to determine priority is to use annual business income value, calculated by subtracting variable costs from the related product line revenues.

Michael DuCharme, an assistant vice president and senior account manager at FM Global, has helped see clients through this process. "Our goal is to understand the client's business," he said. "What product do they make, what components go into it and where are they being sourced? And then we can identify pinch points, and put together plausible scenarios for a disruption here, or there."

Threatening to impede the identification of key suppliers, said DuCharme, is the sometimes tenuous link between risk management and procurement. Today's risk manager must be prepared to forge new relationships, or to strengthen existing ones, with corporate procurement to clarify the financial implications of individual supply chain exposures. "What we've seen is that procurement is out there establishing a supply chain, and not necessarily keeping a line of sight to risk management issues," he said. "So what we can do, as location-based underwriters, is provide risk managers with concrete, bottom-line outcomes of potential interruptions. And they can use that information to reinforce the linkage between risk management and procurement."

Get This!

FM Global can provide you with a **Supplier Identification and Prioritization Worksheet**, to help you determine where to best focus your efforts to manage supply chain risk. For more information, please contact a member of your FM Global client service team.

Is It Time to Manage Your Supply Chain?

If you answer yes to any of the following questions, you may be ready to take the next steps toward developing a formal supply chain management program

1. Has your business strategy evolved into lean manufacturing and just-in-time inventory?
2. Do you minimize costs by outsourcing in-process material and goods?
3. Do you rely heavily on suppliers or contract manufacturers to run your business?
4. Has globalization driven your company to search for the lowest manufacturing costs?
5. Have you eliminated redundancy from your business process through the use of single-source suppliers?
6. Do you transfer manufacturing to third parties, thereby transferring additional risk—such as natural disasters, fires, political concerns, communications and equipment failures, and so on—that you no longer control or manage?
7. Are you aware that insurance coverage alone might not be enough to help you recover from a supply chain disruption? Aware your company may never regain lost business, credibility with customers, reputation or market share?
8. Could there be vulnerabilities in your supply chain you have yet to uncover?

2 Supplier analysis

Once you've identified key suppliers, the next step is to develop an awareness of the fundamental threats to those suppliers and manage the associated risk. This requires a deeper understanding of the supplier's business operations and its ability to recover from a major disruption. It's possible, of course, the supplier will be highly resilient to a disruption—perhaps owing to a solid business continuity plan—and present a smaller risk than initially thought. For example, a supplier thought to be the sole source of a critical component may, in fact, have the ability to produce that component at one or more additional locations, either owned by the supplier or contracted elsewhere.

The good news is that, if your company follows strict property loss prevention standards in its own facilities, it can choose to do business with like-minded suppliers. If your business is important enough to a supplier, that provider even may allow you to audit its facilities, or agree to make risk improvements to achieve preferred-supplier status. Current business trends indicate suppliers are becoming much more willing to share information; this may, however, hinge on the amount of influence your company has on a given supplier.

Provided access to a supplier location can be obtained, the goal is to understand the key facilities or processes needed to produce the supplier's products or services. You will have many questions: Is the supplier's production based on a single location or multiple locations? What are the physical threats to these locations? How long will it take for the supplier's business to recover from a disaster? Can the loss be mitigated through alternative locations or producers? Does the supplier have a comprehensive business continuity plan?

To help you gauge the supplier's physical risk exposure, and what the financial impact of a loss could be, FM Global offers a Supply Chain Risk Evaluation—an engineering visit designed to fully assess the property-related risk at a supplier location. Said FM Global's Paul Sweet, senior staff engineer, "There's a lot of preparation before the visit between the client and supplier and our client service team—the supplier needs to know exactly what the visit involves, so there are no surprises. When our engineer arrives, he'll key in on the client's interests, or the areas or buildings that produce components for the client. If necessary, we'll make recommendations for risk improvement, for the benefit of the client—a way to say, 'These are the improvements this location would need to make to be considered a highly protected risk and to minimize the possibility of a supply chain disruption for the client.' And then the client may be able to work with the supplier on these issues."

Get This!

FM Global can provide you with a **Supplier Risk Survey** that can be sent directly to a supplier, as a quick way of evaluating that location's risk quality. It may be customized to address your specific supply chain issues. For more information, contact a member of your FM Global client service team.

Four Frontal

The following risk factors apply to virtually every company, including yours—and your supplier's

Environment: These risks are typically related to economic, social, governmental and climate factors. Recently, there has been no shortage of these issues, as witnessed by terrorist attacks, tsunamis, hurricanes and earthquakes.

Market Influence: Is your supplier resilient under adverse conditions? If not, disturbances to the supply of product within your supply chain could have a devastating effect on your bottom line. What do your suppliers know about the resilience of their suppliers? Their exposures could become yours.

Business Practices: In other words, the supplier's financial and management stability, as well as its internal processes and corporate governance practices. Disruptions to internal operations of a supplier—or changes to key personnel, management and business processes—can ripple through to your organization if not mitigated properly. If a supplier has not properly addressed major threats to its own activities, you may safely assume your interests have not been fully considered either.

Physical Plant: Property loss prevention measures are as critical to your supplier's facilities as they are to your own. Yet you don't manage your supplier's facilities. Issues there involving natural hazards, construction material and automatic sprinkler protection can be major contributing factors in a possible disruption scenario.

Chain Reaction

One company's experience with, and recovery from, a supply chain disruption

Today's companies look to minimize costs while increasing productivity; to get to market quicker, without stockpiling inventory or tying up capital. Businesses are contracting for material and services that are no longer cost-effective to produce themselves, building new alliances with suppliers. Any break in the chain can cause the entire system to collapse, resulting in lost sales, customers and market share; delayed or missed deliveries; a drop in operating income; damaged market credibility and reputation; and investor and shareholder uncertainty.

A leading electronics company nearly came face-to-face with these issues not long after it had signed a deal to become the exclusive supplier of LCD screens for a major consumer company's new product line of mobile phones, computers, video games, TVs, satellite radios and GPS devices. The multilevel deal stretched resources to their limit, affecting many companies along the supply chain. Production orders were assigned to various OEM partners, which in turn relied on smaller companies to supply component parts.

Within the first year of the contract, the electronics company was hit with what could have been crippling events. A landslide in Korea destroyed a factory

3 Risk mitigation

Supply chain risk can be mitigated in several ways: through risk improvement efforts, by switching to suppliers with less risk exposure or by spreading the financial impact across multiple suppliers. Cultivating alternative sourcing arrangements, where possible, is typically the best way to mitigate supply chain risk. Recall, however, that a sole-source supplier with a highly protected facility and effective business continuity management practices may not represent a significant risk. Businesses are trending toward leaner, more streamlined supply chains, which means not only fewer suppliers and more sole-sourcing, but also closer working relationships. "These are business partners," said DuCharme, "and suppliers often feel it's in their best interest to proactively manage property risk."

Expanding the supply base for alternatives is just one—and often one very expensive—mitigation strategy. Others call for increased inventory levels (of raw material or finished goods); for internal production capabilities; for merger, acquisition or increased equity investment in the supplier, to better ensure control over supply and reduce potential threats; for business continuity planning requirements for all suppliers; for substitute products and services; or for redesigned products, to allow for greater supplier flexibility.

Where risk cannot be sufficiently reduced, however, you can explore risk-transfer options. To this end, FM Global now provides Contingent Time Element Extended (CTEE) and Logistics Extra Cost (LEC) coverage specifically to address supply chain issues. As FM Global's Richard Snead, AVP and assistant client service manager, explained, these coverages are unique to FM Global. "We've always covered some supply chain exposures," he said, "but with CTEE, we go broader. For instance, if a fire burns up a generator somewhere, and it causes a service interruption at your supplier's location, and that interruption affects your business, the loss is covered. For most insurers, that fire would have to occur at either your facility or your supplier's; but we'll cover a loss resulting from damage to the location that supplies electricity to your supplier. Our extensions of coverage go beyond the suppliers' or customers' locations to outside influences that could shut them down. Because if your supplier can't send you what you need to make your product, then you, too, are effectively shut down."

Snead finds the second coverage, LEC, which is new to the policy, particularly interesting. "Let's say your plant in Dayton, Ohio, USA, is receiving a shipment through Newport News, Va., USA," he said. "And because of a fire—or some other covered cause of loss—at the port, your ship can't dock there. And let's say that was the main component supplier to a key OEM. A fire broke out at a critical supplier's chemical plant in Europe—a large producer of liquid crystals—putting a stop to LCD production. A typhoon in southeast Asia shut down several ports, stranding a container ship scheduled to carry 200,000 new video-game systems to the United States.

Though difficult and costly, in each circumstance, the company responded, mitigating the impact on its operations. It helped the supplier in Korea shift component production to another local factory, arranged temporary housing for workers and negotiated a rush order to replace equipment. It arranged for liquid crystals to be supplied by several smaller companies, located in different countries. It rerouted the video games, by rail, to a port city in another country, and shipped them from there.

Working with FM Global, the company had prepared for the unexpected. It had identified and assessed the potential for risk all along its supply chain, and collaborated with its suppliers to develop an inclusive strategy for improving that risk. It even conducted a comprehensive review of the economic, social, political and environmental conditions in the regions in which it did business. It understood its exposure, and made the decision to protect itself. It learned that risk management in a global marketplace requires more than just insurance. But, more important, it put itself in a better position to compete—even if disaster were to strike.

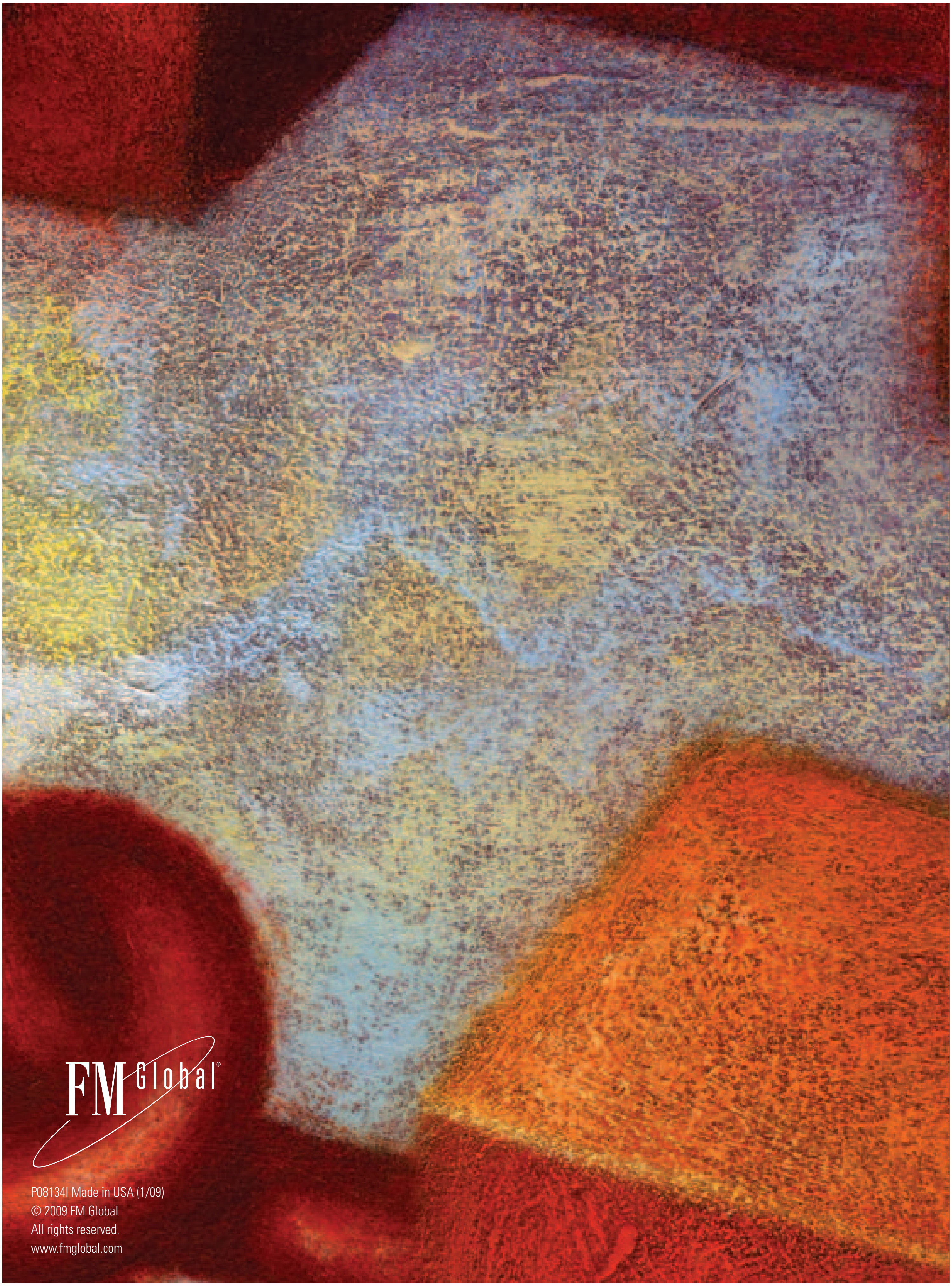
the only other place it can go is Mobile, Ala., USA, which means sending the ship around Florida. The Logistics Extra Cost expansion will cover the extra cost—of rerouting—associated with that break in the logistics chain, provided the loss happens at a location between the client and a direct supplier.

"Getting products from point A to point B is essential to making the supply chain work," he continued. "A port or rail line gets shut down, and rerouting can become very expensive. We want our clients to be able to reroute shipments quickly, and do it with the confidence that those extra costs have a place in our policy. As infrastructures continue to get older and weaker, this coverage takes into account issues our clients may encounter in the real world in years to come." [r]

What Lies Beneath?

A few qualities to consider before choosing your next supplier

- Does it possess only the means to provide the product or material, or is it available from other suppliers as well?
- Can it produce products or material from more than one building or site?
- Can it quickly outsource activity or production to third parties if needed?
- Does it have a formal business continuity plan that includes on-site and alternative facilities?
- Does it possess any particular hazards or risks that will interrupt the continuity of your business in the event of a disruption?
- Does it rely on highly complex or technical equipment that would be difficult to replace?
- Does it embrace strong risk management programs, such as enterprise risk management, which ensure the identification, understanding and management of business risks?
- Does it have potential natural hazard (windstorm, flood, earthquake) exposures?
- Does it possess a data center that is critical to services? Is there a disaster recovery plan for the data center?
- Does it have potential external risks related to economic, social or governmental factors?
- Does it have internal risks related to business practices and physical plant protection—fire protection, construction features, loss prevention management?



P08134I Made in USA (1/09)

www.fmglobal.com