

global economic crime survey 2005

Chemicals industry

We are delighted to present this companion piece to the Global Economic Crime Survey 2005, which was based on interviews with executives responsible for detecting economic fraud in 3634 companies in 34 countries. In this Chemicals industry supplement we examine data from 168 chemical companies in 30 countries.

In the past, many Chemicals industry executives were under the misconception that fraud “can’t happen here in my company.” More recently, however, the industry has seen signs of a culture shift; understanding that fraud does indeed happen, and its results have the potential to damage a chemical company’s financial well being, competitive advantage, employee morale, and vendor/supplier relationships.

Internal parties are being encouraged to report the incidence of economic crime and to feel a sense of responsibility to the company. Organisational codes of conduct have become commonplace, with over four-fifths (81%) of respondent companies implementing such a code.



Nonetheless, our survey results suggest that this culture shift is far from complete – companies can still do more to implement concrete fraud prevention measures such as improved internal controls and to ensure that soft measures such as codes of conduct are taken seriously. Chemical companies also need to do a better job of spreading the word internally. When fraud is detected and is subsequently hushed up, the company loses an important opportunity to deter future perpetrators by sending a strong message that economic crime will not be tolerated. Beefing up the internal audit function can help guard against some of the most prevalent types of asset misappropriation in the industry; but many companies still need to get more serious about rigorously protecting their intellectual property.

We hope that this special report will a) help to highlight the importance of improved fraud controls and detection to Chemicals industry executives, b) stimulate discussion, and c) aid in the development of increasingly effective means of combating economic crime.

Economic crime remains a problem

Over the past two years the Chemicals industry has experienced a slight reduction in economic crime; the number of companies reporting instances in our 2005 survey dropped 3 percentage points compared to our 2003 survey results for the industry. At the same time, economic crime increased in our overall survey sample (up 8 percentage points in the same time period).

However in a few important areas, the figures are less encouraging. Reports of corruption and bribery more than doubled. Of those respondents who reported suffering from economic crime, 28% had experienced corruption and bribery, up from 13% in 2003.



One in five chemical companies suffering from economic crime reported instances of financial misrepresentation.

This increase may in part be due to higher visibility being given to corruption and bribery in the environment at large, and a subsequent greater willingness to report incidents when they occur, particularly as the overall survey sample also showed a substantial increase.

Respondents in western Europe who had experienced economic crime also reported a particularly high rate of counterfeiting – 39% – more than double the rate reported in other regions. In the Chemicals industry, most instances of counterfeiting concern sensitive data such as production methods and formulas. The high rate of counterfeiting in western Europe suggests that stealing and leaking of sensitive company data is unfortunately common to the industry.

It is alarming that one in five of those chemical companies suffering from economic crime reported incidents of financial misrepresentation – doubtless one of the most serious types of crime seen in the industry. For a detailed look at various types of financial statement manipulation, please see PricewaterhouseCoopers' recent report, [Predicting the Unpredictable – Protecting Chemical Companies Against Fraud, Reputation & Misconduct Risk*](http://www.pwc.com/chemicals), available for download at www.pwc.com/chemicals.

Asset misappropriation was by far the most common type of economic crime, being named by 60% of those respondents who have suffered

a fraud event in the last two years (see Figure 1). While this number remains large, it did decrease from 2003 (67%) and is roughly in-line with the amount of asset misappropriation experienced by companies in other industries. Given the bulky and sometimes volatile nature of chemical products, asset misappropriation very seldom includes stealing actual physical inventory. More common in the industry are various types of fraudulent disbursements such as payments to ghost employees, fictitious vendors, pay-and-return schemes, over-billing schemes, unauthorized overtime schemes, and expense report schemes.

Fraud does indeed happen in the Chemicals industry – more than one-third (37%) of organisations in the Chemicals industry report having experienced economic crime over the past two years – and those companies

that reported economic crime suffered from an average of nearly 8 incidents during the past two years. Chemical companies need to continue to take the issue seriously.

Costs of economic crime

Our survey results show that the average cost of tangible fraud (asset misappropriation, false pretences and counterfeiting) per company for those companies who have experienced economic crime in the Chemicals industry is around \$579 thousand – substantially less than the overall average of US \$1.7million. The total cost of counterfeiting in particular was much lower for affected chemical companies than for companies in other industries; this may be due in part to the fact that most counterfeiting in the industry is actually theft of intellectual property rather than product piracy, and these types of losses are much more difficult to quantify.

Intangible damages may also be a problem for companies experiencing economic crime – albeit one that sometimes goes unacknowledged. Most chemicals companies do not report significant amounts of intangible damage due to fraud overall – only 10% rated the amount of intangible damage as “high”, and 65% estimated that no intangible damages were incurred by the company. A few types of fraud are seen as having the potential to generate substantial amounts of intangible damage,

Figure 1: Number of companies reporting different types of economic crime



Economic crime overall is down in the Chemicals industry, however reports of corruption and bribery more than doubled over our 2003 survey.



Improved internal controls can help detect fraud and deter would-be offenders

in particular insider trading (48%), false pretences (22%) and financial misrepresentation (20%), and in fact these types of fraud may be among the most damaging to companies' reputations.

While many executives may focus on possible financial damage, in many cases the impact of fraud can have broader consequences. Economic crime can potentially impair staff motivation, and disturb relationships with both clients and suppliers. In addition, particularly in the chemical industry, economic crime can put a company at a competitive disadvantage; for example if competitors are able to replicate a patented production process.

Chemical companies tend to be discreet about economic crime – in nearly one-third of cases (32%), the serious incidents of fraud discussed by our respondents did not become known outside of the company (see Figure 2). This reticence is substantially more pronounced in the Chemicals industry than in our overall survey sample, where knowledge of the fraud stayed within the strict confines of the company in only 1 in 5 cases (22%).

These serious incidents of economic crime were seen as generating somewhat more intangible damage than economic crime in general; 44% of companies, and 61% of western European companies, reported damage to the company's reputation or brand, a rate that is

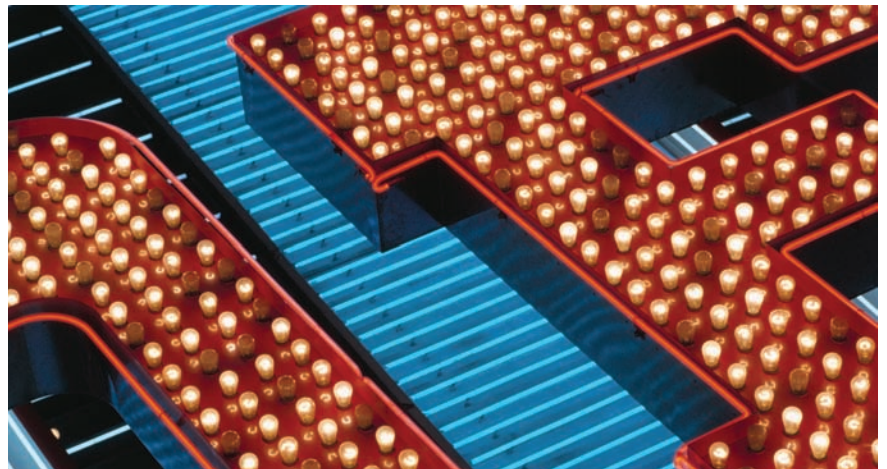
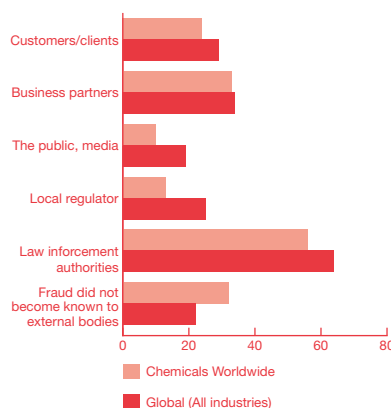


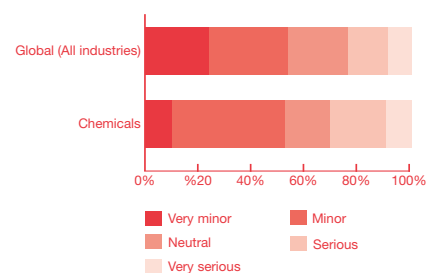
Figure 2: Percentage of cases of serious incidences of fraud which have become known to external bodies in the Chemicals industry vs. all industries



comparable to our survey results overall. Business relations suffered a bit less than in other industries, with 35% of respondents reporting this type of intangible damage. Perhaps most strikingly, though, nearly two-thirds of respondents (66%) felt that the serious incidents

created a decline of worker morale and loss of motivation. Other forms of intangible damage, such as being placed at a competitive disadvantage, were not tracked directly in our survey, but may also be quite prevalent. Overall, nearly one-third of respondents (31%) viewed the intangible damage resulting from the respective cases as serious or very serious (see Figure 3).

Figure 3: Estimates of the impact of intangible damage of the most serious incidences of economic crime



Detection

Economic crime remains very difficult to detect. Despite most companies reporting a very high level of satisfaction with their various fraud detection measures, more than two-fifths of frauds in the Chemicals industry, 43%, are still detected by chance (e.g., through tip-offs or by accident). In fact, chance is the single most common means of detecting frauds in the sector.

Internal auditors also uncovered a number of frauds (26%), indicating that companies should ensure that their internal audit departments have comprehensive fraud awareness training. This type of training helps internal audit staff perform their work with an appreciation of the risks posed by economic crime. An active internal audit staff can perform a number of focused procedures that help to detect the types of fraud most common in the chemicals industry, including:

- validating vendors
- researching anomalies in disbursement
- looking for evidence of kickbacks
- ensuring integrity of IT applications.

These types of controls are not only effective in detecting fraud – a robust internal audit function can also serve as a deterrent to would-be offenders.

Perhaps the most surprising result of our survey was the complete absence of fraud detection via the use of “whistle-blowing” systems



and hotlines. Chemical companies have been proactive in implementing such systems and staunch believers in their efficacy – yet not one company reported actually uncovering serious incidents of fraud through the hotlines. Our survey revealed a similar trend throughout all industries, with only 3% of respondents reporting serious cases that were initially detected through a hotline. So how can companies better capitalise on the systems they have in place? First of all they need to recognise that establishing such a hotline in response to regulatory pressures alone is not sufficient; companies need to ensure that their employees are aware of the hotline and will not hesitate to use it when appropriate.

Fraud's perpetrators

An exceptionally high number of perpetrators in the Chemicals industry – nearly three-quarters (73%) – came from within the company. Overall across industries only about half of economic crimes were committed by internal staff. In comparison to the overall survey, somewhat fewer frauds

were committed by top management (16%), however more frauds were committed by middle management (44%). These results may suggest that while senior management has increased their commitment to ethical conduct, they have not yet been completely successful in getting middle management on board. Given that fraud schemes in the Chemicals industry tend to be logistically complex as compared to inventory theft, they often require the participation of an experienced internal perpetrator.

Fraud perpetrated by management tends to de-motivate staff members, who see their immediate bosses stealing the money they earned for the business, and disregarding codes of conduct, so this trend may partially account for the high number of respondents who reported damage to motivation and morale stemming from serious incidents of fraud.

Our 2005 survey also for the first time explored the motivations behind fraud. The four factors that respondents from the Chemicals industry identified as most important in driving the



Economic crime is on executives' radar screen, but many need to become more familiar with local corruption legislation

behaviours included a lack of awareness of wrongdoing, an easy to tempt perpetrator, collaboration with external parties, and insufficient internal controls (see Figure 4). The high rate of collaboration with external parties is not surprising, given that many fraud schemes in the Chemicals industry such as the sale of trade secrets or kickbacks require a complicit external party. Chemical companies are already starting to recognise the need to improve internal controls; 45% expressed a high level of willingness to improve these measures over the course of the next two years. The same percentage of respondents is also looking to beef up compliance programmes – an encouraging sign that the industry is taking economic crime seriously.



Reporting, investigations, recovery

Discovering fraud is only the first step. Companies also need to decide how to deal with the perpetrator, and attempt to recover lost assets.

Upon the discovery of fraud, and consistent with the global results, the most common response of chemical organisations was to inform their Boards of Directors (82%) and conduct an internal investigation (80%). Chemical companies were somewhat less likely to turn to law enforcement agencies – only half of companies did so (49%), compared to nearly two-thirds of companies in our survey sample overall (63%). Given the high number of internal perpetrators, this discrepancy is not surprising; chemical companies were somewhat less likely to press criminal charges against fraudsters, the large majority of whom were members of their own staff.

Far from turning a blind eye, though, chemical companies were substantially more consistent in dismissing the

fraudster than companies in other industries. More than three-fifths of respondents reported dismissing the main perpetrator of serious incidents of fraud, compared with only 43% of companies overall taking similar action. Consistent sanctions against fraudsters are an important factor in deterring future fraud, however in order to benefit from taking a tough stance companies need to ensure that staff and management are aware of the consequences.

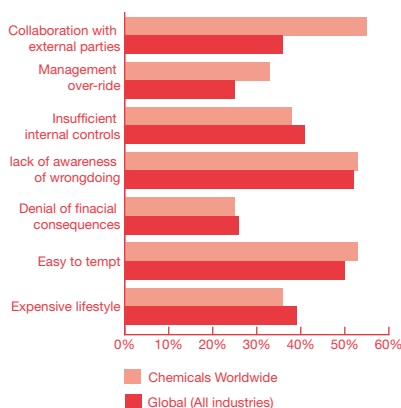
Chemical companies seem willing to deal with the consequences of economic crime – only 6% of chemical companies chose to do nothing, compared to 13% of companies overall – now many need to ensure that they convey that message throughout their organisations.

Chemical companies made recoveries broadly in line with the global survey, with around half of companies (50%) recovering at least some of their losses. Given that incidents of crime in the Chemicals industry have an overall average lower cost per incident, recovery may be somewhat more difficult than in other sectors.

Management awareness

Economic crime is on the radar screen of many executives in the Chemicals industry. When asked to rate management's knowledge of the causes of economic crime, nearly a quarter (23%) believed it to be very

Figure 4: Top reasons for committing fraud

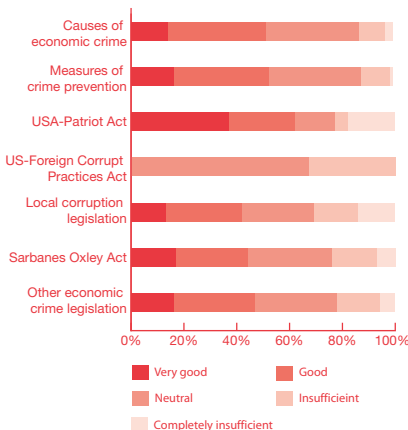




Companies need to raise internal awareness of measures taken against economic crime

good, and less than 10% felt that their management's understanding was insufficient. Similarly, more than half of respondents rated their company's familiarity with crime prevention measures as good or very good (see Figure 5).

Figure 5: Estimated level of knowledge amongst management of various issues



Management's knowledge of local corruption legislation was estimated a bit more conservatively, with just over two-fifths (42%) describing it as good or very good – still here Chemicals industry executives outstripped their peers in other industry, less than a third of whom (29%) were felt to be knowledgeable in this area. The level of good or very good knowledge of other local economic crime legislation was slightly better (47%).

While it may not be relevant for all companies, we should note here the abysmal level of knowledge of the US Foreign Corrupt Practices Act (FCPA), which makes it unlawful to pay bribes to foreign officials and enhances accounting provisions. Not one Chemicals industry respondent believed that company management had good or very good

knowledge of the US FCPA and one-third (33%) of respondents reported that their management had insufficient knowledge of this law. Given that a significant number of chemical companies report having been subjected to corruption & bribery (28%), and at least some are likely operating in the US, this response is quite surprising.

Future Outlook

The Chemicals industry is fairly optimistic about their future vulnerability to economic crime – less than one-fifth (17%) of respondents feel their organisation is likely or very likely to suffer from economic crime in the next 5 years. While the industry does seem to be improving at fighting economic crime as compared to other sectors, this optimism may still be misplaced, considering the fact that 37% of respondents suffered from economic crime over the past two years.

The culture shift is far along. Fraud is being recognised and reported more and more often. However, the message that fraud will not be tolerated may not resonate below the executive suite. Visible consequences of committing fraud and increased public awareness of the tangible and intangible costs of fraud will keep these trends on a positive course.

PricewaterhouseCoopers Chemicals practice

PricewaterhouseCoopers Chemicals practice is a global network of over 130 partners and 2,400 client service professionals who provide industry-focused assurance, tax and advisory services to over 200 public and private companies. Our leadership team consists of:

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Note:

Full details about the methodology and demographics of the survey along with definitions of the terminology can be found in the Global Economic Crime Survey 2005 report, which can be downloaded from the dedicated crimesurvey website below. Chemical companies participating in the survey were located in the following countries: Argentina, Australia, Austria, Belgium, Brazil, Canada, Czech Republic, Denmark, East Africa (Kenya, Tanzania), France, Germany, Hong Kong, Hungary, India, Indonesia, Italy, Japan, Malaysia, Mexico, Netherlands, Norway, Poland, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, UK, USA.

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