

Article Title: ARCHIVE | Criteria | Insurance | Health: Extending The Insurance ERM Criteria To The Health Insurance Sector Data: (EDITOR'S NOTE: — This criteria article is no longer current. It has been superseded by the article titled "Criteria | Insurance | General: Enterprise Risk Management," published on May 7, 2013.) Health insurers provide comprehensive medical insurance, administrative and health-related services, and limited and/or supplemental insurance for medical-, dental-, and pharmacy-related benefits for individuals and associations or groups. Group benefits, which make up the majority of health insurance in the U.S., are employer or government sponsored. Whereas, in Germany, for example, health insurance is predominately individual based. A significant portion of health insurers' operations might include group life and disability insurance. Health insurers face key risks in predicting medical costs, creating the right products, and executing effective pricing, customer service, and claims management. Health insurers also face certain risks and exposures that differ in scope from other insurers. Some of the more significant risks are rising medical costs, changing regulations and legislation, and less-than-perfect data in the underwriting and pricing processes. Moreover, controls to counter these risks might be effective or allowed in one region or country, but not in another. Typically, insurers use enterprise risk management (ERM) to identify, mitigate, monitor, or control these risks. Sound risk-control practices, as part of ERM, underlie the ability of these firms to deploy capital consistently to those risks within their tolerance. As capital is deployed, in the long term, appropriate pricing strategies set some insurers apart from others. Such practices support effective capital management and robust enterprise-wide risk management. Thus, sound ERM optimizes risk-adjusted returns and ultimately increases the firm's value. Many health insurers integrate strategic business risk management with their insurance risk control process. Moreover, health insurers often view competitive strength and product innovation and differentiation as business risk issues. Although Standard & Poor's views such areas as important elements of the ratings process, these elements are assessed as part of the overall review of management and corporate strategy and competitive position. Standard & Poor's has identified other noninsurance risk components, such as risk culture, investment risk, operational risk, risk models, emerging risk, and strategic risk management, of its ERM evaluation framework that are broader in scope and apply to all insurers in varying levels. These issues have been discussed in the Insurance criteria reports published Oct. 17, 2005, and June 2, 2006, respectively: "Evaluating the Enterprise Risk Management Practices Of Insurance Companies," and "Insurance Criteria: Refining The Focus Of Insurance Enterprise Risk Management Criteria." Also see, "U.S. Health Insurance Midyear 2006 Outlook: Strong Vital Signs For The Sector," published June 5, 2006. This article describes how Standard & Poor's assesses the effectiveness of the controls that health insurers rely on to limit their exposure to risk. Risk Identification Underwriting risk Exposure can be assessed on either an individual or an employer group basis. A limiting factor associated with group accounts is that they typically do not include medical underwriting of the participants. One method to control exposure is a large and diverse enrollment to help ensure a proportional exposure to healthy and unhealthy participants. However, although being one of several health options that a group offers limits broad exposure, this could invite adverse selection risk, in which there is a greater than assumed share of unhealthy participants. Some jurisdictions allow small group underwriting based on gender, age, and (sometimes) industry. Other control mechanisms, such as restrictions of certain high-risk participants, may be appropriate, but government mandates may regulate or prevent such restrictions. Individual insurance placements, prevalent in countries such as Germany, offer more risk exposure because of medical underwriting on a per-risk basis. In Germany, for example, group plan participants are also underwritten individually. Demographic information, such as age, sex, or known medical conditions, such as diabetes or cancer, allows the insurer to either reject the individual or to charge for additional premium loadings. In some countries, inflation projections may predict more accurately expected future health care costs, and may be explicitly considered in pricing individual insurance. However, in Germany, by law, private health insurers are not allowed to consider inflation when setting prices. Instead, there are regular mandatory premium adjustments. Individual insurance underwriting offers a better understanding of micro-level risk, but this usually is at the expense of higher administrative costs. Conversely, the Australian private health insurance market is community rated in the form of health funds. These funds are required to charge essentially the same rate to all policyholders for a given product regardless of their age, sex, or state of health. However, consumers

can choose different products with different levels of cover. Some loadings exist for older members taking out private health insurance for the first time or after a lapse, rather than changing funds. In addition, funds in Australia must accept new policyholders, although some standard waiting periods apply. For small group and individual coverage, writers' distribution channels of the insurer must also be assessed. Agents provide insurers account flow and may even have underwriting authority (though not so in Germany). Quality control assessments of the agents and ongoing communication of risk tolerance is imperative. Newer distribution channels, such as the Internet, may present lower expense options, but the integrity of the underwriting process must be ensured. Concentration risks, such as account sizes, geography, or group type (private or public), present other potential risk exposures. Other exposure concentrations, such as local economies, a particular plan sponsor/employer, and certain providers or jurisdictions, should also be addressed. Pricing risk Matching rates appropriately with risk and exposure is essential for the long-term stability of any insurer. This is particularly true for health companies in which medical costs continue to rise at an accelerated pace. Some products or services may enable rate increases in relatively short timeframes (for example, 30 days-60 days), while others have longer lags. Companies that have staggered renewal dates through a balance between large- (which typically renew on January 1) and small-group plans (which renew throughout the year) have a greater ability to respond more quickly to adverse pricing. In addition, multiyear rate guarantees, although less common in recent years, will exacerbate a pricing error. Multiyear rate guarantees are an additional risk for some government programs because of the lag between pricing bids and the effective date for proposed rates, which is typically a longer lag than those of commercial insurance. For example, with Medicare Advantage in the U.S., the pricing for calendar-year/policy-year 2007 has been completed, which presents pricing risk for actual 2007. In countries, such as Germany, the actuarial basis for premium calculations does not permit any allowance for future inflation of medical costs. Instead, the insurer is obliged by law to raise premiums collectively as soon as incurred claims differ by more than a certain threshold from the actuarial assumptions, while maintaining a mandatory 5% security margin. Any revision to the premium calculation will also affect existing business. This mechanism limits pricing risk. An effective platform to gather information, select appropriate risks, and accurately assess and price them when the policy is sold, remains, nonetheless, vital to a health insurer's success given the long-term nature of the business because of the absence of insurer cancellation rights. In Australia, for example, health funds have regulatory controls that limit their ability to increase premium rates. The system allows an annual rate increase cycle, in which above-inflation increases must be actuarially reviewed and approved. Given the evolving nature of the health services industry, it is highly appropriate to keep rates fresh. Various administrative and network access fees affect pricing. Proactive and aggressive reviews of pricing adequacy based on a history of monitoring and then followed by routine rate filings are sound practices. Further, having a process to project medical cost trends accurately, to anticipate the effect of new medical treatments, and to manage any new related costs and have them reflected in pricing are also highly appropriate practices to manage pricing risk. Claims management risk Insurers must adhere to certain standards for prompt claims processing, reserving, and payment. Claims professionals manage claims through various processes, including assessments of treatment necessity and claims-cost development. However, claims filing abuse must also be identified and addressed appropriately. Service interruption and inaccurate reimbursements can have negative repercussions for the provider constituencies, as well as for members and employers. Adequate information technology within the claims management process helps improve efficiency by automating routine claims. IT also enables more effective identification of adverse development trends and claims costs that fall outside of earlier forecasts. Provider renewal risk Rising and sudden changes in health service costs is a major risk factor for insurers. Those U.S. health insurers with heavy provider concentrations and renewals concentrated around a particular date (January 1, for example) may have a greater exposure than other insurers. Moreover, insurers with limited pricing power may have limited influence on cost structures. Having a diversified mix of services and products, as well as using standardized policy provisions are examples of sound control practices. A more challenging control environment would be to stagger the inception dates of renewals, though few insurers seem able to achieve this with regularity. Operational risk Customers furnish extensive amounts of personal information to health providers. This information is important to the underwriting

process and claims management. However, security and procedures to ensure the integrity of the information warehoused by insurers is equally important. Fraud and privacy rights risks are foremost concerns. Data integrity and the security of information systems are also important factors for accurate reconciliation, and ultimately timeliness, of payments and premiums. Compliance is especially important if federal government programs, such as Medicare and Medicaid, exist. If a company participates in these programs, it is subject to myriad rules and regulations, many of which require extensive reporting and monitoring. The federal government routinely audits these programs and noncompliance can result in fines and, in the extreme, participation in the program may be denied.

Catastrophe risk Exposure to certain events, such as an Avian Flu pandemic, a large-scale terror attack (biological or otherwise), or a natural disaster can be a concern, particularly for firms heavily concentrated in densely populated areas. Losses may not always be directly related to the initial catastrophe. Although Hurricane Katrina was a large property exposure, claims in the wake of Katrina were more than offset by the lack of claims for routine medical care. Relevant Katrina exposure included increased out-of-network care by displaced citizens, reserves for premiums receivable (for example, grace periods were extended by regulators), and long-term losses of employer groups and members. Sound risk management practice includes diversifying exposure (that is, location, account size, and private versus public), centralized authority levels for large cases, and hands-on attention to underwriting quality. Reviewing and understanding the effect of man-made or natural disasters and implementing control procedures to mitigate losses under alternative scenarios are also prudent practices.

Regulatory and political risk A significant risk factor is the effect of changing legislation and the influence of national, regional, or local regulators. Countries, such as Germany and the U.S., face ongoing risks that changing legislation may create. This challenges the way in which insurers price and control risk. Specifically, for German private health insurance, Standard & Poor's believes that legislative change remains the main risk to the sector. The private health insurance system remains inextricably linked to the state health insurance scheme, with any change to the state system likely to have repercussions for the private system as well. This sector has been subject to regular legislative changes and is undergoing another reform, with details yet to be finalized. Similarly, ongoing legislative review of the U.S. health care system continues and, in particular, issues surrounding prescription drug benefits and Medicare reform remain focal points in the political spectrum. Therefore, it is important for health providers to be cognizant of the potential risk effect of changing regulations and reforms in health care and health care insurance. The Employee Retirement Income Security Act (ERISA), Consolidated Omnibus Budget Reconciliation Act (COBRA), and more recently, the Health Insurance Portability and Accountability Act (HIPAA) are examples of government regulations that have affected the U.S. health insurance industry. The Australian market is stringently regulated through the governing body, Private Health Insurance Administration Council, and its federal government. Regulation covers solvency, premium rate increases, product, and coverage, for example. In addition, there is some reliance in the market on government initiatives, such as tax disincentives to opt out of the system, as well as incentives, such as a government-funded copayments of premium. While there is no indication that these incentives will be removed, there is some comfort that the industry has existed without that support in the past. Regulatory risk in certain countries, such as Germany, tends to be driven at the national level. Conversely, within the U.S., the primary regulatory risk for most health insurers is at the local state regulatory level and local departments of insurance. Some rate regulation and limitations could include: Maximum and minimum variation from manual rates for a small groups; Ability to underwrite medically individual business; and Mandatory benefits provisions. In Germany, the actuarial assumptions are based on mortality and lapse tables, a technical interest rate of at most 3.5%, and claims per capita tables. Official statistics must be used for claims costs, mortality, and lapse rates unless a company has compiled its own data. In the U.S., state regulators ultimately decide on statutory accounting practices. For example, New York does not allow admission of any statutory goodwill. Moreover, in the U.S., state regulators also promulgate minimum capital requirements, as well as set rules for paying dividends to a parent company. In Pennsylvania, an extreme example, the state insurance department has set forth maximum capital (on a risk-based capital basis) for the state's four Blues plans. Future effects of pending health care law in the U.S., such as Massachusetts' new universal coverage law, may present additional opportunities and exposures for insurers. Steps to

ensure compliance with current and evolving regulation should be inherent with any sound risk control process, which should go beyond a set of written parameters or guidelines. However, best practice would suggest that adherence and appreciation of regulatory and legislative concerns be a required element of any firm's risk culture and everyday decision-making. Capitated business risk Counterparty risks may be inherent in firms with significant amounts of capitated business (for example, HMOs, PPOs, and POS plans). Firms with this exposure are subject to the soundness of counterparty financial health and the payment timeliness of providers, because the group assumes the majority of the health costs of its members. This is not only a credit concern, but also a liquidity risk. Regular reviews of counterparty financial stability and payment timeliness, along with action plans to respond to emerging problem situations are examples of sound practices. However, capitated business risks are not usually a significant exposure for most companies. Other products and services Beyond health-only insurance risk, some health insurers have exposure to dental, vision, behavioral health, pharmacy benefit management, life insurance, or disability insurance products and services. The life and disability products present additional insurance risk concerns and characteristics that must be identified and addressed. On the other hand, dental or vision products generally provide small, fixed benefits with little additional insurance risk, but may have separate and distinct networks that could add risk exposure. The risks of each ancillary business must be considered, as well as the correlations of risks and the ability for organizations to aggregate and prioritize risks at the enterprise level. See "Refining the Focus of Insurance Enterprise Risk Management Criteria" published June 2, 2006, for additional information on life insurance risk. Risk Monitoring Understanding the potential impact of identified risks requires ongoing monitoring and measurement. This information is essential for firms to react in a timely and appropriate fashion. Different tools and processes are used to monitor and measure identified risks. Senior risk staff often monitor claims costs, claims processing timeliness, rate adequacy, fees, and premium charges. By monitoring claims activity, for example, emerging trends can provide information about other control areas, such as pricing and policy terms. The rate at which this information is gathered and its quality can be a distinguishing factor. Current claims trends within the firm and those throughout the industry provide management with information about potential issues that can be used in underwriting or pricing. A reliable IT system can support swift claims processing through automating routine and common claims, while also providing management with current trends and drivers of claims activity. Regular monitoring, such as assessing advances in health care treatment, of medical and other health care costs are also sound practices. The impact of these costs should be reflected in the rating, pricing, and underwriting processes. Past monitoring efforts by segment, product, and geography provide data about trends and correlations. Such information can also validate prior forecasts, assist with performance benchmarking, and provide data for future projections and reserve adequacy. Modeling supports reserve development, rate adequacy, investment portfolio management, and strategic planning among others. Utilization is also tracked and forecasted through modeling efforts. Various methods can be used for modeling, such as value at risk and economic risk capital models. It is essential that data integrity, data feeds, and model assumptions be valid for the model to be effective. Risk Limits And Standards Adherence to sound risk-taking practices starts with setting standards and limits to serve as underwriting guidelines. Firms establish limits on exposure and targets for rate and parameters to ensure that proper contract terms are followed in the underwriting process. These limits apply to individual and group health insurance. Regular training of staff supports a firm-wide understanding of the organization's standards for underwriting, pricing, and program structure. Staff should be held accountable for adherence to such standards. Insurers often seek diversification of exposure by targeting business in multiple regions, multiple-sized accounts, or through multiple products. Likewise, there may be limits set and segmented by geography, industry, or customer size. Yet, in certain situations, there may be a trade-off between diversification of exposures and having the ability to set more effective coverage terms and pricing within a concentrated position. Strong practice would be able to assess readily those trade-offs. The health industry, at times, faces abrupt and significant changes in costs. Firms may choose to stagger accounts over the course of the year to avoid seasonal spikes that would otherwise limit their ability to respond by raising rates while costs are rising. However, this is difficult to do in the large group market segment in which many groups renew their programs in January. In addition, counterparty risk presents certain credit exposures to providers

that may need to be monitored. In contrast, certain carriers function as specialty insurers and have leading-edge understanding of key risks and products, allowing for a heavier concentration in any one area. Communication along multiple fronts, including actuaries, claims staff, underwriting, legal, compliance, and marketing groups, is essential to ensure that risks assumed are in adherence to the organization's risk tolerance guidelines. New and existing products should be priced and structured to meet strategic goals without compromising the risk-taking expertise of the firm. Robust systems of controls and experience monitoring may be viewed as adequate risk management techniques. More sophisticated systems applications and modeling are helpful, though not necessarily essential, to capture risk and measure risk levels for the firm. These advanced applications are not only important to measure known risk factors and their frequency-driven exposures, but should also be used for catastrophe modeling related to such events as health epidemics, terrorist attacks, or possibly large-scale natural disasters. Risk Limit Enforcement Frequent audits and regular reviews of cases help ensure that existing policies and programs are structured and priced according to prescribed corporate mandates. These procedures also help identify inadequate rates and policy terms that might otherwise not be properly reflected in the reserving process. Authority levels by case size, or deviations from standard terms, should be selectively granted and readily enforced. Large risks may entail multiple opinions and referral steps before assumption of risk. Proper authority management is equally important to the underwriting of risk for the claims process and settlement of losses. Appropriate compensation structures that are tied to the performance of the portfolio provide appropriate incentives for the underwriting and marketing staffs. A balanced perspective of risk and reward should be emphasized. Technology is also very important to the real-time tracking of the risk profile of the firm. IT systems can track such factors as exposure, capacity utilization, cost, health status, and rate, which can be assessed in a timely matter and responded to as necessary. Risk Management Most U.S. health insurance business is short-tail in nature. However, the health insurance industry has faced periods of gains and losses resulting from attempts to match premiums to anticipated costs. Proper planning to anticipate future health care costs are a necessary part of the underwriting process. Moreover, unanticipated health care costs and competitive pressures can create cycles that should be recognized and managed effectively. In contrast, private health insurance in Germany is usually a whole life cover with no insurer cancellation right. This obviously presents a long-tail exposure and a different risk management approach is prudent. Close experience monitoring to identify activity that is in excess of historical or forecasted levels may provide information about signs of adverse development that should be incorporated into reserve assumptions. Alternatively, close experience monitoring may reveal underwriting control weaknesses, or claims abuse or fraud tactics that should be addressed. Diversifying the portfolio is another risk management practice, which is achieved through the underwriting process by limiting certain exposures while targeting others. Diversification helps to reduce undesired concentrations. Limitations or exclusions of coverage help to maintain exposure profiles within desired levels. Insurers must be able to respond quickly to changing regulations, competitive pressures, and pricing fluctuations. For example, a challenge for most U.S. employer-group plan insurers is that a significant percentage of customers renew on January 1, particularly if their customer base is concentrated in the large group market segment. This is in contrast to other insurance sectors (such as property/casualty or life and annuity) in which staggering renewals throughout the year enables an insurer to respond to adverse conditions in a timely matter. Health insurers may seek reinsurance support to manage risk. Reinsurance support may be quota share, excess of loss, or stop loss programs, either of which would be structured to maintain risk at the tolerance levels that insurers prefer. Such structures may be on a micro level at the point of sale or viewed in a portfolio context. Reinsurers also provide valuable feedback and support in areas such as product development, pricing, claims, and other insurance-related risks. Risk Learning The insurance industry continues to evolve, and as health insurers identify risks, the controls for those risks should also evolve. Past losses affecting particular firms or the industry worldwide should provide a starting point for internal reviews of processes and control self-assessments. Firms should be able to respond quickly to control deficiencies if they can identify actions that could have been done differently to avoid or mitigate a loss. Inadequate actions should be improved, and actions that were missing should be developed and implemented. The risk-learning process should be continual. Firms that can view past experience as

case studies for actions that control risk will be able to respond quickly to other uncertainties that may not always be anticipated. Conclusion As the insurance industry continues evolving and as changing regulation and legislation persist, the risk profile of health insurance is unlikely to remain stagnant. New exposures will present new challenges for insurers in their attempts to manage these risks. Moreover, appropriate insurance risk control is only one element of effective ERM. A table that summarizes the favorable and unfavorable characteristics of health insurance risk control indicators follows.

Health Insurance Risk Control Indicators	MOST FAVORABLE	LEAST FAVORABLE
Underwriting risk	For group plans, enrollment is consistently large and diverse with exposure to varied age groups, occupations, and demographics. For individual plans, thorough medical reviews of each insured including assessments of historical medical conditions are exercised. For groups, heavy concentration risks are readily assumed and not controlled specifically. Plans offered are part of several options provided by a group sponsor increasing adverse selection issues. Accounts originated and bound through third-party agents are frequently audited and underwriting authority is delegated judiciously. Insurers take a minimalist approach into the investigation of individual risks. Regular training is required for all insurance risk staff, particularly with new products and changing regulations. Pricing risk Health care trends and medical costs are actively tracked and their impact assessed. Ongoing reviews of the effect of new health treatments, new medicine, and new technology on pricing strategies. No system or process to identify medical inflation trends and to incorporate projected health care costs into product pricing. Actuarial assumptions are update infrequently. Multiple medical care cost forecasting techniques and outputs are used for pricing development and are frequently updated. Multiple year policy terms and rate guarantees are commonplace within the insurer's portfolio. The firm has taken efforts to stagger renewals to enable quicker adjustments to pricing such as through exposure to multiple segments (group and individual). Extremely large proportion of the portfolio is exposed to U.S. government programs, such as Medicare Advantage, where pricing terms are established well in advance of policy inception. Routine rate filings and communication with regulators and health care providers exist to address and account for rates and fees. Claims management risk Effective process for immediate response and swift resolution of claims. Large proportions of claims are left open for extended periods without a clear process for closure. Process exists to monitor claims abuse. Action plans are in place to address issues surrounding inaccurate or false claims. Highly decentralized and fragmented approach to claims management. Provider renewal risk Standard policy provisions are used and multiple providers exist within an insurer's portfolio. The insurer has very little pricing power because of heavy dependence on a few providers. The insurer consistently strives to maintain pricing power and has the ability to negotiate favorable terms with sponsors and networks. Products and service offerings are extremely limited in scope. When possible, group policy renewals are staggered throughout the year. Inconsistent policy terms are commonly accepted. Operational risk Information security checks exist throughout the organization. Data backup and sensitive information are secured and monitored with measured frequency to ensure privacy rights and data integrity. This extends to the integrity of accounting and reporting systems to support reimbursement programs such as U.S. Medicare and U.S. Medicaid. Information security is limited to daily data backup processes. Ownership for compliance is clearly defined throughout the organization and appropriate management processes exist to ensure compliance with applicable regulatory mandates. No clear central ownership of compliance exists within the organization, but is instead managed in a decentralized manner on a per account basis. Significant system processes are manual entry based. Few secondary checks exist. Catastrophe risk Process in place to assess the impact of major catastrophes including scenario and stress testings. Redundant and auxiliary sources and methods of care have been vetted and disclosed to policy holders in the event of a catastrophe. Reviews of the impact of catastrophic events are limited to part of an annual planning process. Regular communications to insureds of possible actions to reduce health risks resulting from catastrophe situations. Aggregate exposure is tracked and updated on a semi-annual or annual basis. Process in place to identify and limit a concentration of exposure to catastrophe prone areas or areas densely populated. Regulatory and political risk A formal process exists for Investigation, review, and analysis of current and pending regulation and their effect on the local health care system. Corporate strategy is developed primarily as a reaction to changing regulations. Strategic decisions are made prospectively given evolving regulations and political	

changes. Capitalized business risk There is an ongoing analysis of credit and financial strength of counterparties. Backup liquidity sources have been vetted. Financial stability assessments of counterparties are limited to the renewal review process. Other product and services risk Aggregate exposure and correlations of core health insurance with other products and services provided by an insurer are regularly measured, monitored, and managed. The results of such analysis are incorporated into pricing and strategy. New or auxiliary products are entertained primarily to augment revenues. Correlation and aggregation with core products and services are done ad-hoc. Risk monitoring Claims monitoring and development information is shared continuously with actuarial groups and underwriting units for current pricing and forecasting. Advanced information systems are used to manage and record claims with real-time feeds to management reporting. Claims, underwriting, and actuarial groups function separately with communication and feedback shared, but on a limited basis and with limited transparency. Multiple modeling techniques and metrics are used to track utilization, risk aggregation, and correlation. Such modeling efforts may include economic capital, value-at-risk, economic value added, or other metrics. Risk monitoring is largely done ex post with lagged risk control efforts. Risk monitoring is real time and is used to ensure exposures are within organization's tolerance, while also identifying the impact of risks falling outside of the a firms risk appetite. All claims are manually processed leading to lags in monitoring actual results. Risk limits and standards Insurers have documented limits and capacity constraints that are well understood at all levels and functions of the organization. Limits and capacity restrictions are inconsistent or very broad relative to the risk tolerance of the organization. Limit breaches can be easily tracked and responded to accordingly. Risk tracking and documentation standards vary by product or service or region, and are not consistently followed. Risk limit enforcement Limit breaches are extremely sensitive at all levels of the organization. Process to respond to limit breaches is enforced inconsistently or not at all. Repercussions of limit breaches are not clearly defined. Enforcement is owned and monitored by a senior risk officer or risk committee or other senior body. Remediation steps for limit breaches are developed and implemented swiftly. Risk management Risk management staff has clearly understood authority and responsibility for ensuring risks assumed by the organization are within the tolerance levels of the organization. Risk management staff is viewed as consultants with limited authority and accountability for the risk management policy. Variations of exposure management and transfer, including reinsurance, are frequently assessed. Risk versus reward decisions are ingrained in the risk management process. Risk learning A process exists throughout the organization to identify and evaluate risk control effectiveness, with subtle improvements occurring regularly. Evaluations examine quantitative elements such as adverse claims development and model deficiencies. Feedback also exists to monitor the risk control process effectiveness. Infrequent risk control updates occur only in response to loss and often involve significant changes to process or procedure or risk tolerance.