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### The Asian Flu—Is Anyone Immune?

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*Summary: The speakers explain the financial risks inherent in the Asian financial crisis and other, more recent crises. They discuss how such risks can affect other countries and regions. They touch on such topics as sovereign risk and currency mismatching. The speakers also comment on impacts on multinational financial services operations and suggest ways for the industry to prevent or better manage these risks.*

Mr. Frederick W. Kilbourne: In case you wondered, this session is not about your health, but rather about your wealth. We have a distinguished panel for our subject. Stijn Claessens is the lead economist for the World Bank headquartered in Washington, D.C. Stijn is from the Netherlands and has a Ph.D. in finance from the Wharton Business School. He taught at New York University before joining the World Bank, where he now specializes in East Asia.

Stuart Leckie is the chairman of Woodrow Milliman China in Hong Kong. Stuart has been in Hong Kong 20 years and previously headed operations in Asia for Fidelity Investments, Watson Wyatt, and Sedgwick, all in Hong Kong. Stuart, like me, has taken many actuarial exams. He is an ASA and a Fellow of both the Scottish Faculty of Actuaries and the British Institute of Actuaries. He is also an Order of the British Empire, conferred by the U.K. and a Justice of the Peace, conferred by Hong Kong. He is also the President of the Actuarial Society of Hong Kong.

Ted Kelly is currently president and chief executive officer of Liberty Mutual. For all you life actuaries, that's a very big casualty company in Boston. He's an FSA, was educated at Queens University in Belfast, and he has a Ph.D. in mathematics conferred at MIT. Our plan is that Stijn will set up a kind of foundation for Stuart to talk primarily about Asia, and Ted will follow, emphasizing Latin America.

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I am a Fellow of the SOA and several other actuarial organizations. I've been a consulting actuary for 35 years, mostly as an independent, but I did start an actuarial practice for Booze, Allen & Hamilton. I started the insurance actuarial practice at Mercer, and I started the casualty actuarial practice at Milliman & Robertson. I'm the moderator because of an investment decision that I made and implemented in 1994. My investment strategy is predicated on the fact that the entire rest of the world consists of baby boomers, so I will refer to you as baby boomers. My anticipation is that as you prepare to retire, I would expect the stock market to go up and then when you actually retire (and you shouldn't let this get out really) in 15 years or so, I expect the market to go down.

Accordingly, you should get into the market now and out later. It makes sense to me. In 1994 I decided that, in addition to getting into the market, the smart thing to do would be not to get into the U.S. market but into the overseas market. I gave Fidelity some money, which they turned over promptly to Stuart, I'm sure. Then he took the money and put it into three funds. One was a Southeast Asia fund (Stuart will be answering for that); a Latin American fund (Ted, I'll be interested in that) and the rest in another fund covering the rest of the world (Stijn, I consider that to be your choice). I'd like you each to please explain yourself to the audience, but also to me and please figure out how to get my \$30,000 that I've lost.

Mr. Stijn Claessens: You may wonder why it was called the Asian flu, but went to other countries. Indeed, you may wonder if anybody is immune to this disease.

The topic of my presentation is, what caused the Asian flu? What were the factors underlying it? Why did it happen? What doesn't it tell us about risk in the emerging markets today, and how can we prevent this risk from going forward? What are the lessons that policymakers, academics, and others are debating these days in Washington and elsewhere on how to change the system to prevent this from happening again?

Let me start with some background on East Asia. East Asia really had the macroeconomic fundamentals right, as the World Bank and the Washington consensus would define it. East Asia had good macromanagement and healthy fiscal positions. They kept real deposit rates reasonably positive, meaning that savings was being stimulated, and the economy resources were reasonably well allocated. It liberalized its financial system slowly, in contrast to many other countries. It didn't adopt the one-time only reform, but it did adopt a gradual approach to the financial sector reform and the opening of a capital account.

In the meantime, it was trying to work on the supporting institutional framework, which support a financial system and that I'm defining very broadly—regulations, supervision, laws, accounting, and practices. These good macrofundamentals were helpful, but they also were helpful in disguising the many weaknesses that did exist in this region for quite a period of time. These good fundamentals included the high economic growth of this country. Many of the countries were growing at 8–9%; some were even at 10%, including China. They had very high domestic savings rates, up to 40% for some countries like Singapore, but they were

generally above 30%. This compares to most developing countries that have ratios of 20% of gross domestic product (GDP) in savings.

Profitability was very high in the corporate sector in East Asia, and many of the corporations were in some sense leading the growth in this region. They were very much in tune with the international environment and competing on a global scale. The governments complemented it by having strong fiscal positions. In contrast to many other parts of the world, they did not run large fiscal deficits (as they did in Latin America and some parts of central and eastern Europe). However, there were many weaknesses, and those weaknesses tended to be more of a micronature rather than a macronature. These included very ineffective legal structures. In some countries, there was not a bankruptcy system to speak of. The bankruptcy system in Indonesia had been adopted when it was a Dutch colony in early 1900, and it was never used to actually resolve financial distress. The disclosure of financial statements was quite limited and often was misleading. Published data didn't really give you an accurate picture of either a corporation or a financial institution.

The regulation and supervision, while both improving, as I had said, was still quite weak, comparing standards in this part of the world to those considered general international best practice. For example, loan classification criteria used by banks were quite relaxed. Some countries even allowed loans that were non-performing for more than 12 months to be considered performing loans, whereas the global standard would be three months or less.

The corporate governance framework, and here I'm talking about the corporate sector, particularly the listed companies, was relatively weak with very weak protection of minority shareholders and limited disclosure. What's important is there were many connections between both banks and corporates, as well as among the real sector, the politicians, and government at large. Finally, there was a big residual role of the state. Early on, during the days of the East Asian Miracle, this was often considered a healthy part of the development paradigm because the state was stimulating growth, particularly in countries like Korea. Of course, it did come with some costs. I'll tell you what some of those were.

Let me go through each of these weaknesses and put them in a relative perspective to give you a sense of where these countries were. There is transparency and quality of disclosure. If we rank these countries on a scale of 1-10, and we take the U.S. as close to 10 or at 10, Indonesia, Thailand, the Philippines, and Malaysia scored maybe five or six. They were considerably less transparent and less open in terms of disclosure of financial statements.

They also have much weaker corporate governance. Chart 1 reflects the rights of minority shareholders in influencing the governance of institutions. If you look at the Asian countries, and I'm comparing them to Latin American countries, which is already a low benchmark to use as a comparison, these countries scored considerably below those Latin American countries. If I were now to extend these charts to also include the Organization for Economic Cooperation and Development (OECD) countries, (particularly the U.S.) you would see that minority shareholders were not very well protected. The insiders were often families who were in charge

and in control of these corporations, and they had a large scope to divert resources out of these corporations into their own preferred activities, or into their own pockets for that matter.

This issue, the corporate governance, actually extended throughout the whole corporate sector and real sector. If we look at ownership by the top families in these countries, we see that these countries have a very concentrated ownership structure (Chart 2). If you look at the horizontal axis, it gives you the percentage of the ownership of the corporate sector that is owned by the top 15 families in each country. For example, in Indonesia, the top 15 richest families own more than 60% of the corporate sector. Of course, a well-known example of that family would have been the Suharto family, who probably already controlled 30% of the stock market in Indonesia. In other countries like the Philippines, there is one family, the Hyola family, who controls about 16% of the stock market of that country.

That, in turn, led to a lot of perverse connections and relationships. They were either already in government, as in Indonesia, in the case of the Suharto family, or indirectly through ownership to links with the politicians, as in Thailand where many senators actually were owners of large shares of the corporate sector. But we see that the degree of institutional development, the quality of the institutional framework, is negatively affected by the ownership concentration in these countries. (And that's what this chart tries to show on the vertical axis.) On the other hand, in Japan, for example, we don't see much concentrated ownership. The rule of law is generally being respected. The judicial system is quite efficient, and there's an absence of corruption.

The other extreme is Indonesia where we see a high degree of corruption, a highly inefficient judicial system, and an absence of the rule of law. These underlying deep connections were clearly impeding and creating loss of risks in the system during this period of time. Singapore and Hong Kong, by the way, stand out as being countries that are well. They have some concentration of ownership, but are relatively efficient in terms of judicial and rule of law, and they also have less corruption than the other countries.

As I mentioned, there was a large residual role of the state in the system. Let's discuss the share of bank assets in 1994, which was still controlled by the state. While the shares are not necessarily higher than in Germany, for example, they would be considerably higher than the ones seen in the U.S. or in many other developing or developed countries. You had a state that was both directly, as well as indirectly, controlling a large share of the resource allocation. Again, that opened up a lot of scope for inefficient resource allocation, as well as for political and other connections.

Capital markets in the region were underdeveloped, and the other financial reforms were lagging in many ways. It was not necessarily true for the equity markets. Equity markets were actually developing quite rapidly and many of these countries had stock markets that were well-developed and that represented a high share of GDP, but the bond and security markets were clearly lagging. That indeed created much more risk, as Allen Greenspan pointed out at the annual meetings of the International Monetary Fund and the World Bank.

The role of the capital market was also quite limited. It was largely a fund-raising vehicle rather than a vehicle for disciplining and monitoring corporations. Because of the poor protection of minority shareholders, the capital markets could not influence the functioning of the corporations; rather, it just provided a source of financing.

The pension funds in the region did exist. Malaysia has a large pension fund, and Singapore has an employee provident fund. However, these were largely centralized, publicly owned, and publicly managed funds that clearly were in need of more private orientation in terms of their asset allocation and their management behavior in general. Throughout the region, particularly in Japan, but also in the other countries, rapid aging was putting more pressure on more savings vehicles, but that pressure was not being met yet.

Throughout the region, I would argue that structural changes, and this included the integration of international economy, were actually demanding far better governance and much better forms of financing. The whole model in East Asia was based on a resource-intensive allocation of capital. It was not yet the kind of knowledge-based and information-oriented system. The financial markets had not adapted to that kind of environment.

Finally, throughout the region, foreign entry of financial institutions clearly lagged behind other countries and actually was inhibited by several barriers. If we look at bond market turnover, we'd see Japan, Korea, China, Malaysia, developing East Asia, Indonesia, and Thailand lagged when compared to Germany and the U.S. While bond markets may exist to some degree, they were not really functioning in the way one would want to see them functioning in terms of turnover and activity.

Similarly, in terms of foreign entry, that was very limited. Chart 3 shows, on the horizontal axis, the number of banks in each country relative to the total number of banks. On the vertical axis, it shows you a level of institutional development, rating the quality of the framework and quality of management in each of these banking systems. As you see, there's a downward trend here. The worst countries that have a high rating, like India or Indonesia, had fewer foreign banks in their domestic markets, whereas Hong Kong and Singapore, which are relatively open markets—Hong Kong in particular—had a better institutional and developed financial system. The limited entry of foreign banks was not only impeding the quality resource allocation, but also the institutional development of the system as a whole.

All of these combined weak spots led to a poor and often risky financial intermediation. If you look at the efficiency of intermediation, there were many unsound lending practices. Banks were mainly lending for collateral; that is, they did not lend on a cash-flow basis and mainly lent on a collateral basis. One would typically want to lend on a cash-flow basis. The asset quality was often poor. The documentation of the loans was very limited and, as I mentioned, there were many perverse connections. This meant that free resources or easy resources were often available to those who had the insider track. That led to risky financial intermediation and there were many mismatches between assets and liabilities in

terms of duration, maturity, and currency composition. There were also very high exposures to risky financial sectors, particularly real estate but also other sectors.

That combination led to the growth of a quasi-fiscal deficit. All of this was happening against the background of a government that has a fiscal surplus in most of these countries, so the government was giving the credibility to the financial systems for this risky intermediation to go on. Depositors were still willing to put their money into the banking system because they knew that the government would always be able to come up with the resources.

As I said, for a long time these weaknesses were disguised. In many ways, the East Asia crisis is a crisis of a success because they had such a successful period and, in some sense, it set itself up for a bigger downturn. The growth that was high in the region covered up many of the lending mistakes. Therefore, although resource allocation was inefficient with the high growth rates, many of the corporations or banks could afford them. The high savings in the banking system allowed many banks to continue to carry the non-performing loans. Even though the banks were not officially earning a rate of return, there was no liquidity risk in the banking systems.

The government provided the credibility through their fiscal positions, and depositors and savings mobilization continued in spite of the riskiness. As a result, we didn't see any kind of crisis of confidence before 1997. The kind of micro and other weaknesses I pointed out would have much earlier led to a crisis of confidence, say in Latin America or in other parts of the world. I believe it is because these countries were so used to good fiscal positions and good management, that there was not a crisis of confidence before.

One way of illustrating this is by looking at some indicators of profitability and returns. Banks, for example, looked quite profitable throughout this period (Chart 4). There was some decline in Korea and the Philippines, but actually in Indonesia, Thailand, and Malaysia, we saw an increase in profitability in 1995 compared to 1991. In other words, in spite of these weaknesses that were developing, banks were looking actually healthier rather than less healthy. This is partly because the weak accounting allowed these banks to hide some of their problems.

The non-performing loans, as a ratio of total loans, appeared relatively low (Chart 5). Now one has to put these ratios into the context of a developing country. In the U.S., one would not want to see much more than 3% and maybe even 2% on average for non-performing loans in the banking system. In developing countries, 5–10% is not abnormal, but in these countries, we're not that far off from that 5–10% benchmark. China stands out as a country that has much higher non-performing loans, but other East Asian countries have less than Mexico, Argentina, and even Brazil during this period of time. On the banking side, the risks did not appear to be that high.

This was played out in terms of the banking crisis. We've probably had approximately 100 banking crises across the world in the last two decades. In our part of the world, they have been rare, and they have not been particularly costly. What is the cost, as a percentage of GDP, of resolving various banking crises in

emerging markets? The crisis in Chile in 1981–83 stands out as costing about 45% of GDP. One can compare this to the savings and loan crisis in the U.S. in the 1980s, which cost only 3% of GDP. I will later show you how costly the current crisis is, just to give you a comparison of what these numbers are today.

We also saw countries undertaking financial reform, so it looked like they were addressing some of their problems that I had identified before. They were trying to phase out state control. Korea privatized some of the state banks in the 1980s. Interest rates were being freed. There was a greater diversity of financial products; and asset securitization was being introduced in some countries. Consumers had a wider choice of financial products. The capital account was progressively being opened. It appeared that the structural weaknesses were being addressed. As I mentioned before, pension reform was starting to happen and foreign competition was being introduced.

However, in the early 1990s, East Asia became increasingly integrated financially with the world and international private capital flows increased sharply in the early 1990s. I'm talking about a 3–6 percentage point of GDP increase in private sector capital flows, particularly to countries like Thailand that started to run deficits up to 8% of GDP, which is a very high number compared to the U.S. As we know, international capital, including individual investors, takes bets on success and failures. As long as the story is successful, capital can move very quickly, but when it becomes a failure, it will move very quickly. The time to address these structural issues was thus becoming shorter and shorter. The institutional framework needed to improve. At the same time, and this was exactly because there was this success, the incentives on the politicians' and everybody's side was actually not to address these weaknesses. Times were good, and it appeared as if everything was going the right way. As usual, that's not the time that you want to address the difficult issues.

Chart 6 tries to capture these various interactions among capital flows, domestic financial liberalization, and the banking system. It may be too complicated a chart to explain quickly, but there can be a vicious or a virtuous cycle that can emerge. You can have a situation in which capital flows into the country, which then gives you an investment boom, and often a real estate or an asset price-driven boom, that in turn also leads to a consumption boom. As a result, you see asset prices increase, which gives higher collateral for lending. Banks are going to be much more willing to lend to the real estate sector. That, in turn, induces further capital inflows as prices increase, and it leads to a higher credit growth rate and starts a cycle that looks like it's a success cycle, but is actually building up many fragilities. This will happen on both the macro side, in terms of the current account, as well as on the micro side on individual bank riskiness in their bank portfolios. The cycle, which can be stimulated by an initial economic reform or liberalization effort, can then start to take off on its own and actually become a very risky cycle. It may be virtuous for a while, but then it can become vicious.

This cycle was actually not helped in East Asia by the fact that the countries had adopted macro policies that actually stimulated this cycle and made it go faster. For example, the fiscal was in surplus, so one would typically say that was not adding to the demand pressures of private capital inflows. If you look closely at the

fiscal impulse in Table 1, you'll see the change in the fiscal situation was actually procyclical and aiding to this demand pressure. Exchange-rate management has been identified as a main culprit in the crisis. Indeed, many of these countries, or almost all of the countries, adopted a fixed exchange-rate regime, which made it very attractive for foreign investors to bring in short capital, benefit from the high domestic real interest rates, and then take out money again for a large gain. The exchange-rate management induced more capital flows.

TABLE 1  
FISCAL IMPULSE PROCYCLICAL

Correlation between the fiscal impulse and excess demand pressures			
	1990–96	1990–93	1993–96
Indonesia	0.86	0.91	0.87
Korea	0.88	0.93	0.91
Malaysia	0.75	0.86	0.82
Thailand	-0.23	-0.32	0.13

As always, if you open up, it's not necessarily the best foreign firms that get the financing. The ones that are the largest, but not necessarily the most efficient, or the ones that are best connected might get the financing. Again, you can worsen the situation.

Like I said, there were many vulnerabilities, such as high private credit growth and risky lending among real estate, foreign exchange risk, and liquidity risk. There were poor corporate financial structures as well as somewhat poor performance. Finally, there was a large private external debt. Let me take each of these one by one.

Credit growth in the region was very high (Chart 7). Let's compare bank credit or credit by non-bank financial institutions to the rate of growth of the GDP. In Thailand and the Philippines, the rate of growth of credit was multiples of GDP growth rate during the 1993–96 period. You had rates of growth of 30%. If you have a 30% average growth rate, there are clearly institutions that are growing at 80-90% sometimes. There are very few institutions that would have the capacity to manage the risks, which come along with such high growth rates. Those were also the ones that subsequently became distressed.

Bank exposure to real estate was high: it was about 19% in Indonesia and 12% in the Philippines. These numbers are possibly understated because the classifications for these loans are not always proper; therefore property real estate developers may not be captured by these numbers, but these are high numbers for any banking system.

The external dimension of risk also increased, particularly in Thailand where the ratio of foreign liabilities for the banking system relative to foreign assets shot up to a ratio of almost 700%, which is a multiple of eight (Chart 8). If you take one as a kind of a norm, in the sense that you are matched, you see that very few countries were matched in 1996, and some, like I said, go up to 7% or 300% excess of liabilities over assets.



All these risks build up in the end to a risk of a run on the foreign reserves. The risk of a run was very high at the middle of 1997, just before the Thai crisis. Let's explore the ratio of short-term foreign debt relative to total foreign reserves. In the case of Korea, it reached the ratio of two; in Thailand, it was 150%, much above those of other emerging markets, which may already be considered risky. The risk of a bank run on these countries became significant in June 1997, and then we saw the crisis, of course.

On the corporate side, rates of return were high, but they were declining through the period. I compared the rates on assets for a sample list of public firms in East Asian countries (Chart 9). If you take the U.S. and Germany as a benchmark, where you may have a greater return of 4–5% on assets, these countries have very high real rate of return on assets. Therefore, there was a true East Asian miracle happening. However, rates of return were declining over this period; in Thailand and Indonesia, rates of return were on the declining side. That may not have been the most risky part of it. The risky part of it was that the leverage was very high. If you take the ratio of earnings to interest payments (earnings before taxes and depreciation), a typical U.S. AAA company would maybe have a ratio of 20 or so. Some of these countries had ratios that declined to slightly above one, so firms were only barely able to cover their interest payments. Any shock to earnings or increase in interest payments would immediately trigger financial distress in these countries. In that sense, they were already single B countries rather than AAA countries.

Thailand is where it all started. It's really a case in point. It's, in a sense, an epitome of the problems; it had poor quality weakness closure information. The government had bailed out several times in the 1980s during the bank crises. As a result, there was a lot of anticipation of another future bailout and banks were not willing to discipline themselves because they knew they could always rely on the government. There was no competition in the financial sector. The last bank license that was handed out was in 1982, and there was no foreign entry of any significant extent. Connected lending was large. Banks were owned by the same families who also owned the corporations.

Let's discuss poor resource allocation. Office buildings are a prime example. I've heard stories of office buildings being built in a paddy outside of Bangkok two miles away from any road. These were 50-story office buildings with no economic reason or value except that somebody wanted to have his own office building.

Last, there was an ill-planned liberalization to make Thailand a regional financial center. In order to create that, Thailand gave preferential treatment to certain forms of capital, particularly short-term capital. Thailand may never have had the capacity to be a regional financial center, but this clearly was an inducement for new capital, more capital to come in when the situation was already risky.

As for the credit growth rates, Chart 10 shows that there was more than 25% over the period of large inflows, whereas GDP was in nominal terms declining to 67% over this period.

The construction boom in Bangkok is a wonderful example (Chart 11). This chart gives you data as of 1996, before the crisis. This was the anticipated supply of office space coming on stream after 1996–97. At that time, vacancy rates were already up to 15% or so. The new office supply coming on stream was huge; it was half of the existing office supply or thereabout. There was a clear, strange disconnect between the market needs and the new office construction.

Was all of this ignored? Not necessarily. The ratings of commercial banks throughout the region were actually downgraded before the crisis. The sovereign risk of the country was not necessarily downgraded. The credit ratings of the individual banks actually showed that they were considered quite risky. Take the banks in Korea, for example. Ratings were already in the lower range at this point in June 1997.

Putting it all together, what did investment banks think of the whole picture? They considered these countries quite fragile in the fall or the summer of 1997. This is a work by Goldman Sachs that tries to put together these weaknesses and add them up. Korea, Indonesia, and Thailand were considered very risky because of each of these individual factors: related party lending, weak supervision compliance, and what have you.

What does it all mean? I won't take you through the chronology of the crisis and its various stages. I will give you a picture of what the damage is today. It's considerable. Let's look at non-performing loans in the banking system today: Malaysia is 18%. That's still low relative to Indonesia at 70%. This has implied a huge cost for the government to capitalize these banking systems as the government has stepped up to the plate to honor its guarantee of the deposits. It has had to come up with a large amount of fiscal resources. As I mentioned before, the U.S. had 3%. The crises in other countries might have gone up to 20–30%. This might mean 50 percentage points of GDP in terms of restoring the financial systems to any kind of health in terms of financial help. On the operational side, it might even take more than that. The government owns a lot of the assets of both the financial sector as well as the real sector with state shares of GDP above 100% in some countries.

Lessons learned. You can build an impressive structure of macro stability on some micro weaknesses or quicksand, and these weaknesses can extend themselves for quite a long period of time, whether it's on the banking side or on another side. Unfortunately, liquidity problems only arise much later than solvency problems. Problems also become more difficult to tackle. Arguably, had they been willing to tackle the problems earlier, during their success period, they could have avoided it. I think what the crash showed was that the risks are often due more to the interaction between micro and macro issues, as I've tried to sketch, which makes it more difficult to predict or analyze, particularly in today's integrated world. It is exactly the micro and macro together that can make the crises.

Does it mean that we now have all the answers to how and why the emerging market crises occur? No. It's still being debated intensely both in the international financial architecture as well as among academics. What were the exact causes of the East Asia crisis? People look back at the macroeconomic issues and argue it

was all a financial panic. One can look at how Korea is recovering so quickly. It must be that the foreigners just pulled out too quickly. A lot of people would argue it was the collapse of a bubble, as we have seen many times before, that started with the tulip bubble or the South Sea bubble centuries ago.

I think we don't know the answer and crises are likely to recur because we don't know these answers exactly. It's a combination of micro and macro issues, but one key distinguishing factor of East Asia was that the contingent liabilities sometimes became too large for the governments to carry. At that point, the crisis was triggered and then the crisis itself created the credit crunch, debt overhang, and all of its perverse dynamics.

Let me wrap up with the current policy direction for the international architecture. Whether it's architecture or plumbing, people haven't yet made out what the exact name for it should be. It is debated and designed, which is exchange-rate management. People think developing countries should choose fully flexible exchange rates or fully fixed exchange rates. Exchange rate mechanisms in between mechanisms don't function too well. There's increasing emphasis on standards that a country should adopt, not just in the financial sector's bank supervisory guidelines, but also in corporate governance and accounting and in many other areas. Of course, implementation is going to be a key issue that cannot be expected to take up that quickly.

There is increased emphasis on international institutions to survey these countries in a number of these dimensions, and there are also signals that they do not live up to the international standards.

On the international capital-flow side, much talk has been given to workouts in order to involve a greater deal of the private sector burden sharing or so-called bailing of the private sector. Many believe that the private sector, at least the banks, got out scott-free when they pulled out of these countries and the official sector came in. There's talk of giving more emphasis to capital controls to prevent the large in-flows when they occur.

I think one can't be too optimistic on these issues, because it will take quite some time to implement them. If one looks at what needs to be done in the financial sector in each of these countries, one would have to expect it would take a long time. You need to build a whole legal and financial infrastructure. You need to develop mechanisms to resolve banks, and you need to have well-trained and well-paid bank supervisors. That's not an easy task when the pay in the public sector may be one-tenth or one-twentieth of what people can get in the private sector. You need more capital markets. There is a long list of issues that we need to address, but it will take quite awhile.

Often risks will be new and that's partly because we see still international capital flows going from East Asia to Latin America to Russia in many unpredictable ways. What happened last fall in the U.S. market was not something that anybody would have predicted. I think it may be more useful to step back from time to time and evaluate whether the framework in the country is conducive to proper risk

management and let that guide us in our investments and assessments of countries.

Finally, I think we need to be sure that these financial reform issues and real sector change actually reinforce each other. As I said, in East Asia, that wasn't necessarily the case all the time.

Mr. Stuart M. Leckie: I will talk a little bit about what has been happening in Asia, more from an actuarial point of view or from a practitioner's point of view. It's a pretty big subject. I think we've had a very comprehensive talk from the economist's point of view, but I'll try to give one or two examples of how this affected the things that some of us are more particularly interested in, such as life insurance, pensions, and investments.

We had boom times in Asia right up into the middle of 1997. July 1, 1997 was the specific date Hong Kong reverted to the People's Republic of China. In fact, the following day was when things started to collapse in Thailand. In some ways, the people who live in Hong Kong regard it as very fortunate. If you ever are going to have a financial crisis, then thank goodness this crisis did not start in Hong Kong before the hand over. If this had been perhaps six months before the hand over, then China would have complained that this was a British conspiracy, saying it was Governor Patten (governor until 1997) or the West trying to bring the downfall of Hong Kong and China.

Between July and October, things were starting to crack when there was a mini-stock market crash in October 1997. Then, during 1998, with the tremendous problems of all the U.S. dollar loans to these countries in Asia, its currencies were weakening. It became almost impossible to repay the interest or repay the capital of the loans. Very serious loss of confidence in consumer sales saw collapses across the region. A particular point was when Hong Kong, which is often seen to be a bastion of free-market enterprise, went in the stock market in August 1998. Many other things were happening. Malaysia basically stopped repatriation of funds in September 1998, and there were several other major events.

Let's look at what happened country by country. Japan, of course, has had this long-term decline, essentially from the bursting of the Japanese bubble about 1990. I would say that has remained for about nine years. Japan might be starting to recover now. The foreign countries most immediately affected by the crisis were Indonesia, Korea, Malaysia, and Thailand. The Philippines, to some extent, has actually had many crises over the last couple of decades, and for some reason, it was not so affected by this Asian financial crisis.

Singapore and Hong Kong weathered the crisis pretty well. Taiwan was not greatly affected. China, with its whole economy and its market not really open, was not directly affected by the Asian financial crisis.

Let us just think for a moment about what's happening on the asset side, what's happening on the liability side, and what's happening on the business side. If you think about the insurance business and our commercial interests, we need to think

through these three different aspects. Perhaps it is more the relationship between assets and liabilities that is a major concern to the actuaries.

Stock markets, of course, suffered a real battering, as Fred found out from his investments. Bond markets are really only marginal activities in Asia, but this is an area that everyone agrees must be developed in the future. Bond markets should have a much larger part to play. Currencies, of course, really collapsed. One of the interesting effects of currencies is the Hong Kong dollar being tied to the U.S. dollar. Of course, there's no way that the Hong Kong government will permit that peg to change.

What has actually happened in Hong Kong? If Hong Kong cannot become more competitive by devaluing the currency, then Hong Kong adjusts with asset deflation and is also suffering very considerable price deflation. Recent statistics are quite startling. Some of you who are involved in Hong Kong know that, Hong Kong has suffered pretty high inflation from the time the Hong Kong dollar was pegged to the U.S. dollar in 1983. The Hong Kong dollar, pegged at HK \$7.80 to the U.S. dollar, was really at a too-low rate. Inevitably, high inflation resulted. This has now turned completely around, and the latest figures for price inflation over the last 12 months are -6.1% in Hong Kong. If you're doing insurance projections, and you factor in -6.1% to your inflation assumption, you get strange answers.

I mentioned a bit about the fundamental importance of matching assets and liabilities. I think the insurance companies were perhaps not as bad as some of the banks this year. A greater concern to the life insurance companies is low interest rates. This is particularly a factor in the north of the region: Japan, Korea, Taiwan, and especially mainland China.

In mainland China, not necessarily because of the Asian financial crisis, interest rates have dropped from about 9% to 2.5%, just within a pretty short time span. You now have a situation where the interest rate being earned is a lot less than the pricing assumption. Because you do not have a well-developed long-term bond market in most of these countries, there has been nothing like a compensating increase in capital values with the lower interest rate to make up for the reduced interest earnings in future. Some things, of course, would have been happening in any case, such as demutualization of life companies. This is affecting many of the large international insurers in Asia. This is quite an important phenomenon. I don't think that the Asian financial crisis has affected that directly, other than, of course, keeping the consulting actuaries really busy trying to work out the financial effect.

A number of the very large trends that are happening worldwide in the pension funds area have also been taking place in Asia. The World Bank is very keen on the whole debate about defined benefit versus defined contribution, and the three-pillar stool. What is the role of the state? What is the role of the employer? What will be left to the individual? We can think about other elements. Should it be pension or lump sum, and should it be contributory or noncontributory? Should there be member choice and so on? A number of these elements are just starting to be debated or become effective in Asia. The Asian financial crisis has accelerated it. Of course, with pension funds in the individual countries, large numbers of people

might benefit or lose with the changes. Inflation might become negative. If assets are frozen, this will in some ways affect the pension funds. It's quite difficult to generalize, but it is perhaps not as serious as we might imagine.

Indonesia is an example. An interesting situation arose about six months ago when the World Bank was trying to rescue four Indonesian state-owned banks. Now each of these state-owned banks was well and truly bust. Each of these banks had a pension plan that was also not in good shape. The first difficulty, of course, was to determine the rules of the plans. The plans were not being administered in accordance with the rules. The next issue was the data. We had some difficulty getting the exact data, both for the active members, the pensioners and the deferred pensioners, as they were pension schemes as well as lump-sum schemes in Indonesia.

We tried to get certain figures for the assets, but quite a lot of the assets had been in investments that had been put into property and real estate. It was difficult to get a firm figure. The rules weren't quite being adhered to and the data were not complete and accurate. We couldn't really get a firm figure on the assets, but the World Bank wanted to actually determine solvency by Friday. We did so with many, many caveats. We finally came to at least a range of figures for the short term for solvency and arrived at a figure for the Indonesian banks that were being put into a new bank. It was 1.4 trillion rupiahs, so lots of nothing.

If you actually compare the last couple of years, what was happening in the U.S. and Europe there has been a tremendous stock market boom in the U.S., quite in contrast with Asia. At the same time in Europe, you had the introduction of the common currency. In many ways Europe is becoming more and more integrated, and I think this is a contrast with Asia. I would not say that Asia has become more integrated over the last couple of years. The tremendous strength of stock markets in the U.S. and Europe has meant that it has been much cheaper for North American or European multinational insurers to look to buying businesses in Asia. There has been a lot of activity there. Many of the smaller local insurers just cannot now compete. Perhaps they have a problem with the mismatching of assets and liabilities. Perhaps they just feel that there's no big future, so this has been an excellent time for the multinational insurers to become increasingly active in Asia. In some ways, at the time when Hong Kong and other colonies go back to China, we now are seeing something called the Americanization of Asia. There is resentment in a number of countries, just because of the sheer financial power of the Americans. This is a fact, but it's not always a well-liked one.

Just a thought on the World Bank and this is very much a personal view. If the World Bank's fundamental mission is to alleviate poverty, then that's great. The World Bank/International Monetary Fund (IMF) meeting which was held in Hong Kong in September 1997 was interesting. The people in Hong Kong thought it was great that the World Bank annual meeting was coming to Hong Kong. The people in mainland China saw it quite differently. They said that this meeting was taking place after the hand over. The World Bank/IMF decided to have their annual meeting in China, and China has decided to hold the meeting in the Chinese city of Hong Kong. There was one fact and two totally different ways of looking at it.

With all the World Bank loans, I think many people think the World Bank did not react fast enough. Some of the loans were given to regimes that were fundamentally corrupt. On the other hand, I think the World Bank has reacted pretty swiftly to try to rescue South Korea and Indonesia. The country in Asia that has, by far, the worst problem of poverty is, of course, North Korea. I think this is where the World Bank could do a lot more.

The World Bank, of course, is the big brother. The smaller brother is the Asian Development Bank. In East Asia there has been a lot of crossed wires between exactly what the World Bank does and what the Asian Development Bank does. For countries like mainland China and some others, the World Bank has said that it should concentrate more on banking in the future and leave the Asian Development Bank (ADB) to concentrate on other financial institutions. A summary of the ADB's stated mission is "to promote economic and social progress of developing countries." ADB is less powerful than the World Bank. It's certainly less political.

I think one would argue that Asia has been very much overbanked. Banking has played far too large a part in the overall financial affairs of Asia. If we contrast what has happened in the U.S., three or four years ago, mutual fund assets in the U.S. exceeded individual bank deposits for the first time. If you look at the different countries in Asia, then you'll see mutual fund assets at 3–4% of bank deposits. ADB is very keen to try to focus attention on developing capital markets, developing stock markets, equities, and bonds. ADB wants each country in Asia to work with the ministers of finance, the stock exchanges, the regulators, and the long-term financial institutions to try to develop long-term savings, life insurance, mutual funds, and pension funds. I think there will perhaps be a long-term effect and a long-term benefit to the Asian financial crisis. We will see much more attention being paid to perhaps the areas that the actuaries are supposed to be expert in.

Here are some lessons. Exchange rates were being artificially maintained or artificially managed in most of these Asian countries. Another lesson is something that will receive a lot of attention in the future: you can define the law of gravity for only so long. Transparency and regulation are issues that I wholeheartedly agree must be improved. Investment must be diversified. The whole emphasis on banking and on real estate and property is that it is all very well, but we must diversify all sorts of investments.

A particular point to mention is that when the Hong Kong government intervened in the stock market in August 1998, it was a very controversial move. Although it was fairly well received in Hong Kong, it was not at all well received internationally. People thought that the Hong Kong government had just gone mad by buying up about 7% of the Hang Seng Index. In fact, the stock market has improved greatly in the last 12–14 months. The disposal program is just about to start. I'm the director of the company that manages that very large portfolio and the disposal program is going to start by launching the Hang Seng Index fund, which will be sold to retail investors in Hong Kong and institutions worldwide.

In the short term, I think the life insurance companies and mutual fund companies in Hong Kong are quite worried about a government sale of the Hang Seng Index

units. Because of the discount, this may take away their business for the next six months. In the long run, if it encourages people or educates them as to the merits of mutual funds, unit trusts, index funds, and so on, then that should be very good for the mutual fund and life insurance industry.

The hedge funds haven't had a lot of attention. There have been some well-publicized statements against the hedge funds in Malaysia. I think it is true that not just the hedge funds, but North American/European financial institutions, if they decide to sell a currency or stock market in relatively small countries like Malaysia, Singapore, or Hong Kong, can inflict group damage. I think that's a question that needs to be answered. Of course, we want overseas capital, but can it be totally unbridled as to movement? I'm not sure about that. As has been mentioned before, there's a compelling need to develop long-term bond markets in Asia. I think that will happen, which will be a good thing.

Mr. Edmund F. Kelly: I have a couple of words of advice for Fred. First, you buy stocks and when they go up, you sell them. If they don't go up, you don't buy them in the first place.

The second thing is, I heard a lot of people laugh when Stijn talked about the buildings in Thailand in patties. Let's go back 12 years. The market for real estate was going up, yet deposits with risks for people with real estate collapsed. That is similar to the U.S. banking and GIC markets of ten years ago. Many of you were in Denver in 1990. There were more empty buildings in Denver in 1990 than there were in Thailand two years ago. We look at these foreign countries, and take a sort of snobbish view about it. It is so wrong. The life insurance industry did this. Unfortunately, the U.S. had enough of a resource to bail it out. It's not just the foreign countries where things go wrong. Look at our own businesses. Take out microeconomics and take out tax laws; put in GICs instead of foreign investments, and you get exactly more empty buildings in Denver than Thailand.

While I want to talk more to the practitioner's side of the business, I can't give any of the economic insights or the resident sights of the Asia flu. I will talk about how it affected us at Liberty. I'll give you a brief overview of our international operations. We really began expanding internationally in 1992, and since then, it has grown to roughly a \$1.5 billion premium business, which is nearly 15% for total group-wide revenues. We focused on countries and regions.

We have mature operations in Canada, and we actually built a very, very profitable operation in the London market. Most of our growth has been in Latin America, where we've acquired or built a strong business in several countries. This doesn't make us unique, but it does highlight our commitment to be in a global affair and to be state-of-the-art leaders in the global future. The nature of a worthy economy makes it difficult to escape feeling some pain from a crisis like the one rooted in Asia. So rather than focus on Asia, I'd like to move a little bit closer to where we have more experience. Let's discuss how the flu spread through Latin America and what its impact has been on our operations there. Now I don't have to tell actuaries that the biggest peak in mortality came with the flu epidemic in 1919—the old, the young, the weak and the infirm were the most vulnerable to the ravages of



that flu. They became the host that facilitated the spread of the illnesses, even as they died themselves.

In many senses, the Latin American economy mirrored those vulnerabilities. In some ways they are old and established, but they're also young when it comes to modernization of financial services. They've only recently opened up the sector to foreign participation. They have several other weaknesses such as poor fiscal management, large government payrolls and dependence on oil. All this makes Latin America susceptible to wide side shocks. Though the flu has manifested itself differently in the various countries, the effects are not uniform, but the pain has been very distasteful to all. For example, Brazil spent \$8 billion to defend its currency. It doubled its interest rate to 40% and announced dramatic budget cuts and tax increases. This was done to insure asset investors and, for a while, it worked, although it is not clear that the political will is there to continue.

Unfortunately, as the flu continued to do its damage in Asia, another crisis emerged. A year after Thailand devalued the baht, Russia had its economic meltdown. It defaulted on \$40 billion in domestic debt and devalued its currency, which sent the financial markets into panic. In Latin America the focus is, once again, on Brazil. The currency treated hyenas were yapping loudly around what they viewed as what soon would be a carcass and the world's real fear that any damage done to Brazil would spill immediately over to its trading partners throughout the lower hemisphere. This time the government was unable to restore confidence, and it had to devalue by over 30%.

This brings us to one of the greatest risks facing a company conducting business abroad—currency risk. A devaluation can leave the capital invested under very severe translation laws. Now the particular approach to managing this sort of approach and the one adopted by most U.S. companies, is hedging. We have elected not to hedge. Our reasons are simple. First, as a mutual company we are not subject to the emotional and trigger-fingers on Wall Street. Second, it is enormously expensive. For example, in Brazil, in late 1998, it would have cost us \$12 million to hedge \$100 million worth of equity for only three months—that is 36% a year to hedge.

In the short term, there is a price to pay for not hedging. However, as long-term investors in these markets, it is cheaper for us and advantageous to us to finance the cost of any devaluation ourselves. Indeed, if you look at what interest rates do when a currency is devalued, you can see that with enough patience and a strong enough stomach, you will be made whole. When possible, we protect ourselves by keeping the operations and local currencies on a surplus in U.S. instruments. This reduces the impact devaluation has on capital. But the currency risk is not the only risk for a multinational insurer. Operational risk can also be very, very high.

In Brazil, the impact of devaluation began to show up in the economy through a huge decline in industrial production. One of the biggest industries hit was the auto industry. What is not surprising is most cars are purchased through financing, but with high interest rates. It became impossible for the middle class to afford new cars. The result is that new car sales plummeted by 25% in 1998. This is bad news for the insurance industry and bad news for us at Liberty, since a significant

portion of our business in Brazil is personal auto. To compensate for lack of policyholders, we considered an increase in premium rates. However, due to the ownership structure, competitors waged a price war in the hopes of gaining market share. Something akin to this was going on in Korea. Those who operate in the life insurance market in Korea know how hard it is to raise prices. If we wanted to maintain any market share at all, we had to follow the crowd.

In a difficult market, whether in Brazil, Asia or the U.S., the key is to remain focused on executing the basics of insurance. Sound underwriting, preferred claims management, and aggressive expense control are the only ways to manage through market volatility and be positioned for future growth. So in Brazil our operations strengthened around the writing processes. By engaging in better practices, we were able to meet the lower price in the market while simultaneously protecting ourselves from poorer risks. It didn't prevent us from experiencing an upset stomach, but our legs didn't become wobbly, and we've managed the symptoms so that they are much more tolerable.

Unfortunately, the flu has few borders. Take Argentina. Because the peso is pegged to the U.S. dollar and the government moved quickly to increase interest rates, Argentina was able to escape the currency speculation, which wreaked havoc on Brazil. However, the flu managed to manifest itself in other ways. Over one-third of Argentinean exports go to Brazil, and with the devaluation, Argentinean goods were too expensive for Brazilian consumers. The result—exports declined, production dropped, and auto production alone has decreased 50% in the first half of this year and unemployment has risen to 15–30%, if you include the chronically underemployed. The Argentinean GDP is now declining at an annual rate of 4.5%, which is in sharp contrast to the original growth projections of 2.5%.

So what does that mean to Liberty? Our main business is workers' compensation. Decline in economic growth, a higher unemployment rate, and lower wage rates all affect our results. In addition, recession leads to high unemployment, which means more fraud. As with Brazil, our operations in Argentina manage the symptoms by focusing on fundamentals. We reviewed the book of business to make sure it is soundly underwritten. This is particularly important in Argentina where the government controls price. When a product has only a once-a-year chance of a change in price, it is critical that you price correctly at the start of the year. We also cut expenses and used aggressive claims management to combat fraud. On the positive side, there were areas and opportunities for growth. The drag in the economy meant weaker companies. This provided us with the opportunity to acquire books of business, which could no longer be sustained by their owners. We capitalized on those opportunities, and as a result, we are now the leading workers' compensation insurer in Argentina.

Colombia and Venezuela have also suffered the flu, but to a lesser extent. In these countries the emergence of the flu exacerbated already difficult economic and political conditions. However, their ties to the Brazilian economy were not as close. They weren't part of Mercosur, the trading group in the hemisphere. They avoided the double hit. Venezuela fell into recession due to a sharp drop in oil prices caused by the decreased demand for oil in Asia. It is estimated that for every dollar drop in price of oil, the Venezuelan government loses \$200 million in

revenue. Not only is this a direct loss in revenue, but the multiplier effect of oil dollars in that oil economy has tremendous negative impact on Venezuela. Inflation and interest rates have increased, industries have cut back on production and employment and the economy has projected the contract by 1.5% in 1999 in a country that is ripe with corruption. We are very active in the health and life business as well as the oil business.

Venezuela is an excellent example of how, even in the most difficult market, you can soften the impact of the market if you have vigilance and watch expenses and stay ahead of the decline in premium. The company we bought came out of the banking collapse that Stijn mentioned, and it has been profitable every year.

Colombia is a much different story. The political and economic problems are very much Colombia's own making. The Asian flu has affected it, but the flu is just a minor disease compared to the systemic chronic problems in that country. There has been a downturn in economic activity and commodity prices were hurt by the difficult situation in Asia. The economic volatility has led to the same problem—less money for insurance.

In all these cases, the root cause of the flu may be the same—it might be a decline and demand for their product in Asia and the world currency traders putting pressure on currency. The symptoms have varied, but they are all affected by the flu. There is inherent risk in doing business abroad, and if a company is not willing to undertake those risks, it shouldn't go abroad. If it wants to withstand the risk, it has to manage insurance fundamentals correctly. There must be good underwriting, good claims practices, good investments, and very aggressive expense control. Even if you do that, you may get sick sometimes. Sometimes some of your ranks may feel weak-kneed, but if you continue to care for operations, and if you do not overextend yourselves, you'll recover from any bug of the flu, no matter where it starts—in Asia, Russia, or elsewhere.