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VALUE-ADDED ACCOUNTING IN AN INTERNATIONAL CONTEXT

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- o Problems of control in international enterprise
- o Complexities caused by multiple accounting systems
- o Need to recognize local capital and reserve requirements
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- o Use of "Embedded Value" in the United Kingdom
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MR. STEPHEN P. TAYLOR-GOOBY: As you can tell by my professional designation, I'm British. I work in the London office of Tillinghast where I head up the Tillinghast International Financial Reporting Division. That covers an area as diverse as the U.K., Continental Europe, the Far East and Australia. My second speaker is Steve Conwill, another consultant working in the Seattle office of Milliman and Robertson, and he has international experience, in the Far East and especially in Japan. The third speaker is Graham Clay, who is Director and Actuary of the International Division of Prudential. Prudential of London is the biggest insurance company in the U.K. and one of the largest in the world. His sphere of responsibility covers Australia, New Zealand,

Malaysia, Singapore, Hong Kong, Zimbabwe, and Jackson National in the U.S. So, we have a variety of international experience and also a variety of viewpoints, because two of us are consultants and one is a professional manager. I'll let Graham speak for himself, but I think he'd be the first to say that he left technical actuarial work behind a long time ago. So, he's going to bring to you some of his experience in managing multinational corporations, and that, I think, will be a rather different presentation and one that I hope you find valuable.

Many of you are already familiar with the concepts we will talk about, and that is value-added accounting in an international context, particularly as it is applied by and used by multinational corporations. However, some of you may not be familiar with them, so I hope it'll be worthwhile if I run over some of the basic concepts.

WHY COMPANIES USE VALUE-ADDED

I believe that there are two major reasons why companies use value-added accounting: (1) the inadequacies that multinational corporations find with GAAP accounting and

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other forms of accounting that reflect the customs of different countries in which they operate, and (2) the desire for a system that reflects success (or failure) in achieving the corporate strategy in terms of return on capital invested.

With regards to the inadequacies of GAAP, I come from a place where we're quite used to living with and working without GAAP, so I probably have a different viewpoint from many of you, but from the work that I do with U.S. GAAP, I see very many problems with it. The first problem is that it ignores statutory reserving basis and the cost of capital that has to be invested in products. It ignores the target surplus that must be held in a company to support dividends payable as well as the surplus invested in mathematical reserves and expenses, and it doesn't tell you whether or not you're achieving an adequate return on capital. Companies can show GAAP profits and can add to their GAAP profits by selling new business, even though the new business is not achieving an adequate rate of return. The second problem is that it dilutes the acquisition cost overruns. If you spend a million pounds extra in one year, then only a small amount of that comes to the bottom line, and to me, if you spend a million pounds in acquisition cost overrun in one year, that's a loss of a million pounds. In addition to that, if some costs are not allocated to products, then it gives you a false picture of the profitability of your product by effectively leaving a chunk of cost in the corporate overhead. The third problem which multinational companies find with U.S. GAAP is that it is specifically designed for U.S. products, and there are many areas around the world where it is just not appropriate. For example, in the U.K., where companies typically and for good reasons invest large amounts in equities, the capital appreciation in those equities is given varying treatments depending on whether you have realized or unrealized gains. You can get some very strange answers under U.S. GAAP. A similar problem arises for unit-linked business that is written in certain countries around the world. I think that this particular problem is one reason why multinational corporations, especially, have left GAAP behind.

On the second point above, the accounting system you choose depends on your corporate strategy. If your corporate strategy is to increase the number of salesmen, premium income, sales, executive salaries, your leisure time, or whatever, then you probably don't want to switch to a value-added system. Typically, strategies are set by the shareholders, and often that strategy is to increase the value of a company for the shareholders. So, with that strategy in mind the accounting system theoretically is very simple. All you do is measure the increase in value. It sounds simple, but, in fact, it's not quite as simple as that because you first must define what you mean by value. There is no absolute definition of value. You have to create one, and the one that is most commonly used, and the one that shareholders want, is cash. At some stage, the multinational corporation, the head office, wants to see cash coming back out of the subsidiary. Thus, the basic definition that value-added accounting typically rests on is looking at projected, distributable earnings that can be remitted. Value is defined as the present value of those distributable earnings at the shareholders' target rate of return. The shareholders' target rate of return is usually the cost of capital for the group as a whole, but the cost of capital for a subsidiary may be the minimum rate of return which the parent company is prepared to accept on its investment.

VALUE-ADDED ACCOUNTING IN PRACTICE

The other panelists will be discussing some of the practical aspects of value-added accounting in much greater detail, but I will quickly run through the steps. The first step is to analyze what the company is actually doing and develop assumptions for future expenses, dividends, maintenance, lapse rates, mortality experience, morbidity experience, etc. We need a first guess before we can even start looking at a value-added system. Once we have that it is a very simple job to project the distributable earnings. Distributable earnings are not necessarily the same as statutory profits, because we have to allow for the increase in surplus which the company has to hold to stay in business. So, I deliberately use the definition distributable earnings. The present value of distributable earnings is referred to in the U.K. as the embedded value (i.e., the value of the in-force business plus the value of free capital and surplus). Now, in that definition I deliberately left out any value of future new business or goodwill because typically companies want to monitor what is already there. The value of future new business is a valuable asset, but it's more subjective. So, the monitoring stops at the embedded value. But this is only the first stage of the accounting system, and one calculation of an embedded value doesn't mean anything at all on its own.

There are a few more stages before we can actually get some meaningful numbers out, and that can only take place when values are calculated for successive year-ends (or shorter periods if required). Having calculated successive embedded values, that's when you can start to get some interesting information out of the system and find out how well you are doing. Hopefully, the embedded value has increased with the addition of new business and the natural interest that is earned on the opening asset.

We then have to compare the increase with the targeted increase and the minimum target is the shareholders' basic rate of return. That again provides interesting information but not the most that we can get out of the system. The really interesting information that is going to help management is the analysis by component parts of the differences between the expected increase in value and what has actually occurred. That analysis is an absolutely vital part of the system. It's only then that you can start checking the initial assumptions to see whether they are valid.

Then, I think one of the most important challenges for all actuaries is how we present the information. It's very easy to go away and do a lot of calculations which are going to be presented to shareholders, to the board and probably a lot of nontechnical people, and if we don't present that information clearly and in a way that can easily be understood, then we may as well not do the calculations. I think presenting the key performance indicators that drive the value of the business is the biggest challenge.

I'm going to end with that brief overview and introduce Steve Conwill who will start by reviewing some of the basic, key issues and key concepts and then move on to talk about some of the practical issues that arise when you start doing this.

MR. STEPHEN H. CONWILL: As Steve just said, I'd like to go back over some of the key concepts related to value-added and then move on to a discussion of some of the complications which arise in the international context with a focus on the situation in Japan. An often quoted fact is that Japan is the world's second-largest economy, larger than the Soviet Union, larger than a united Germany, and by some measure it's the world's largest life insurance market. I've been doing value-added work in connection with consulting in Japan over the past several years, and it's been a truly fascinating and eye-opening experience.

So, what is value-added and why has it begun to receive so much attention? Like other accounting systems, it's basically an attempt to measure financial performance. There's really been a huge effort expended by actuaries and accountants over the past years in attempting to develop reasonably simple and reliable performance measurement standards. If you look at a typical report to corporate management, you may find statutory and GAAP results, a discussion of ROIs or ROEs, and a discussion of experience and capital needs. Yet, the real key to any management reporting is to create a clear focus amidst the typically massive volume of data.

Developing this focus is tough enough when dealing with operations in a single country, but when operations cross national boundaries, there is a potential for complete chaos. Different accounting systems, capital measures, regulatory constraints and a variety of other factors complicate the picture. Value-added analysis places a value on the enterprise at each accounting period. The two key components of value are an adjusted surplus value and the value of the company's existing block of business. Any goodwill value or value of future business is typically not included. From the perspective of value-added this represents a potential value which has not yet materialized, and thus is excluded from the financials.

In developing the adjusted surplus value, there are generally two schools of thought: (1) adjusted surplus equals the market value of assets not supporting reserves, and (2) adjusted surplus equals the discounted value, at the hurdle rate (a discount rate related to the company's return on investment objectives) of cash flows projected to arise from these assets.

Since the hurdle rate is almost always greater than the market interest rate, the second approach will produce a lower value. In the examples which I'll go over later, I've chosen the first approach, which is more standard in the U.S. However, I've talked to people in the U.K. who feel rather strongly that the second approach is more theoretically correct.

The first step in determining the value of existing business from a ground-up approach is to develop a model of the business. Next, this model is used to project future profits (typically statutory profits adjusted for your capital requirements) which will arise in the business. Finally, these profits are discounted at the hurdle rate to produce the value of existing business. This process can be fairly long, but as long as the key assumptions related to a block of business have not changed from one period to the next, durational business value factors per thousand of in-force may be stored to allow a simpler determination of value at each period based solely on the in-force file.

What is the impact of new business on overall values? If the projected ROI is greater than the hurdle rate, selling new business adds value in the year of sale. If the two rates are equal, new business is neutral to value in the year of sale. This is not necessarily a bad result. If the hurdle rate is greater than the surplus earnings rate, value will increase more rapidly in future years if the surplus is invested in new business than if it is invested in bonds or whatever the surplus assets may be. I'd like to move on to some of the key issues which arise in the international context.

PROFIT ACCOUNTING BASIS

Profits discounted in developing value-added numbers are typically statutory basis profits adjusted to reflect statutory capital requirements. The underlying philosophy is that the stream of profits discounted in determining value should be directly related to the measure used in determining corporate dividends, which is usually some adjusted statutory measure. One nice aspect of the value-added approach is that if the calculation is based on the appropriate accounting basis in each country, the values developed will be comparable for management purposes.

The situation differs somewhat depending on whether a branch or a subsidiary operation is involved. The situation for a branch operation may be confused by the fact that the income of the branch is often reported in the parent company financials on a different basis than it would be reported in the country of operation. For example, some of the U.S. companies operating in Japan feel that reserves on the Japanese block must be reported in the U.S. on a U.S. basis. This may not really make actuarial sense, but the companies feel that there's a regulatory constraint to do so. In this case, should we discount U.S. basis or Japanese basis income in determining value-added, or perhaps the lesser of the two (if we're being very conservative)?

REPATRIATION OF PROFITS

Suppose dividends payable within a country are tied to the statutory basis, but there are further restrictions on paying funds back to a foreign parent, should this constraint affect our determination of value? If profits can be reinvested in new business with a return at least equal to the hurdle rate, it may still be appropriate to relate value to statutory profits, even if in the short term it's really not clear how long it's going to take to get your hands on the profits. Discussion of this type of issue with management is extremely useful because it really requires that management goals, with respect to your international operation, be very clearly defined. In general, international operations tend to require longer term horizons than local ones, and if there's too strong a bias towards equating value with a near- to mid-term cash type return, you may get the wrong answer.

In Japan there is very little precedent on this issue since most of the foreign players have not yet broken even. As an example from Japan, the Ministry of Finance allows new companies to reserve on a five-year Zillmer (preliminary-term) basis, thus making it tempting to use this basis in the value-added analysis. However, indications are that before money is actually removed from these operations, reserves may have to be converted to an net level premium (NLP) basis, delaying the payment of profits to the parent. Does this mean that we should be basing our value-added calculation on the NLP reserve? If using a Zillmer basis permits an operation to write a larger volume of more profitable business than it could otherwise write, one can argue that this should enhance the value of the operation, and it may actually be proper to use the Zillmer basis in the calculation. This is an example of a situation that is not totally straightforward.

PANEL DISCUSSION

HURDLE RATE

Recall that the hurdle rate is the rate at which projected profits are discounted in developing the value figure. Even in a single-nation operation, there is considerable debate over the rate to use. Clearly, it should be tied to the capital markets and should reflect the risk inherent in the business. Companies actually may choose to vary the rate by line of business. Likewise, it may be logical to vary the rate by country. For a company operating in a foreign market the rate chosen would reflect the risk inherent in the foreign business more than the nature of the foreign capital markets themselves. For example, the fact that interest rates have historically been lower in Japan would not necessarily imply that we would use a lower hurdle rate in discounting profits from our Japanese business. As an aside, in spite of the low fixed interest rates which have prevailed in Japan over the past 10 years, due to the rapid growth in equity values over this period (with the exception of the last six months), hurdle rates used in valuing local business in Japan are likely to be comparable to those used in valuing quality business in the U.S. To the extent that we've seen lower hurdle rates in Japan, it's more likely to be related to the fact that the business is more stable and less risky than because of the lower interest rate environment.

Changes in hurdle rate from one accounting period to the next should be identified in the Analysis of Change in Values section which is included in any value-added presentation.

EXCHANGE RATES

One further issue is that of exchange rates. The most obvious course of action with respect to exchange rates is to convert everything to the currency of the parent company. Because of the potential volatility, it is imperative to incorporate the impact of exchange rate variations from one year to the next in the Analysis of Change section.

Exchange rates can create certain anomalies depending on one's point of view. Suppose we calculate the following business values at an exchange rate of ¥150/$ changing to ¥120/4:

TABLE 1

Japanese Operation: ¥3 billion
U.S. Operation: $100 million

Operation	Value at ¥150/$		Value at ¥120/$	
	¥	$	¥	$
Japanese U.S.	¥ 3 billion ¥15 billion	$ 20 million $100 million	¥ 3 billion ¥12 billion	$ 25 million $100 million
Total	¥18 billion	$120 million	¥15 billion	$125 million

This analysis suggests that the U.S. company, viewed from a dollar perspective, is better off after the exchange rate drop of the dollar. But from a truly international perspective, they may be worse off. If the dollar drop reflects greater health in the foreign economies, these economies may be the most desirable place to be, but as the dollar drops, the cost of entry or further capital infusions in these markets increases. In this case, the existing business may not be telling the whole story. It may not be practical to go to your board with value-added numbers expressed in international currency units, but if everything is shown in dollars, a little extra analysis is required. I should add that Graham and I were talking yesterday, and he mentioned that most of the currency problems he's had involve diminishing currency values in countries where he has invested, not the reverse.

I'd like to go through a quick value-added example, and I've selected a few assumptions in Table 2. They're reasonably realistic assumptions for the sake of the example. The December 12, 1990 numbers are not intended to reflect any sort of clairvoyance on my part. However, with that caveat, notice that I've got the interest rate in Japan going up a bit from one year to the next, and, in fact, rates are going up in Japan right now. For the sake of the example, I've got the ultimate lapse rate in Japan going from 6-7%. I haven't seen data this year to suggest that that's true, but, in any case, these lapse rates would be the envy of most U.S. companies.

TABLE 2

Value-Added Example -- Selected Assumptions

	Japan		U.S.	
	12/31/89	12/31/90	12/31/89	12/31/90
Interest rate	7%	8%	10%	10%
Ultimate Lapse Rate	6	7	12	10
Hurdle Rate	15	15	15	15
Exchange Rate	¥132/$	¥125/$	--	--

Table 3 shows the bottom line, showing that both the Japanese operations and the U.S. operations are growing. However, the final value-added figures give no useful information about the year's activities. The first thing to do in the international context is make sure you isolate the impact of the exchange rate changes.

TABLE 3

Value-Added Example
U.S. Dollar Values

	Japanese Operations	U.S. Operations
12/31/89	$189 million	$750 million
12/31/90	$234 million	$856 million

Table 4 shows the growth in operations in the local currency, converted back at the prior year's exchange rate and then shows the gain/loss on exchange as a separate item. Exchange rates tend to be extremely volatile.

TABLE 4

Value-Added Example -- Isolate Impact of Exchange Rates

	Japanese Operations	U.S. Operations
Value, 12/31/89, U.S. Dollars	$189 million	$750 million
Value, 12/31/89, Local Currency	¥25 billion	$750 million
Value, 12/31/90, Local Currency	¥29 billion	$856 million
Value, 12/31/90, U.S. Dollars (12/31/89 Exchange Rate)	$221 million	$856 million
Gain/Loss on Exchange	$13 million	$0 million
Value, 12/31/90, U.S. Dollars	$234 million	$856 million

Now we're going to take a look at what's happening in the local currency terms. Table 5 shows the total value of each operation in local currency on December 31, 1989 and on December 31, 1990 split between the capital and surplus and existing business components. We will examine the changes in these two components separately.

TABLE 5

Value-Added Example -- Analysis of Surplus and Existing Business Values

	Japanese Operations (Billions)			U.S. Operations (Millions)		
	Capital & Surplus	Existing Business	Totals	Capital & Surplus	Existing Business	Totals
Value, 12/31/89	¥10	¥15	¥25	$250	$500	$750
Value, 12/31/90	¥9	¥20	¥29	$284	$572	$856

We focus on the Japanese operation in this analysis and begin with capital and surplus in Table 6. This is a fairly new operation, and it's growing and eating up some capital. Our analysis begins with the prior year's capital and surplus and increases it with the interest earned on those assets.

TABLE 6

Analysis of Change in Surplus

	Japanese Operations (Billions)
Capital & Surplus, 12/31/89	¥10.0
Interest on Capital & Surplus	¥ 0.7
Profits Realized, Existing Business	¥ 3.0
Loss on New Business	¥(5.0)
Capital & Surplus, 12/31/90	¥ 8.7

We have some profits on the existing business, but a fairly large loss from the new issues leads to a decline in capital and surplus for the entire year. Keep an eye on the ¥3 billion profit realized on existing business. That will show up again later.

Now we'll take a look at the change in value of existing business from the ¥15-20 billion. The type of statement in Table 7 is really the key to the value-added analysis, because it helps management understand what has happened from one year to the next. The first item is interest on existing business value (beginning of period) at the hurdle rate. Since the existing business value is calculated by discounting a profit stream at the hurdle rate, you have to bring that value up at the hurdle rate when moving from one year end to the next. Then you have got to pull out the existing business profit and add the value of the new business that we've added. Finally, you make a few adjustments to reflect that what really happened during the year was not exactly what you have in your model or that you may have a change in some of your assumptions going from the current on into the future. The first adjustment is an excess of actual over expected profits, because ¥3 billion is the actual profit figure, but what we'd really want to have pulled out is the profit that was assumed in our model which was 2.5 billion. Thus, the adjustment is .5 billion. Since our summary of assumptions (Table 2) shows lapse and interest rates changing, the impact of these changes is shown in the second and third adjustments. The end result is the existing business value shown at the bottom.

TABLE 7

Analysis of Change in
Existing Business Value

	Japanese Operations (Billions)
Existing Business Value, 12/31/89	¥ 15.0
(+) "Interest" on Existing Business Value at Hurdle Rate	¥ 2.2
(-) Profit on Existing Business	¥ (3.0)
(+) Value of New Business	¥ 6.4
= Existing Business Value, 12/31/90, before Adjustment	¥ 20.6
(+/-) Excess of Actual over Expected Profit	¥ 0.5
(+/-) Impact of Change in Lapse Assumption	¥ (1.7)
(+/-) Impact of Change in Interest Rate Assumption	¥ 1.0
= Existing Business Value, 12/31/90	¥ 20.4

I'd like to close with some comments, on the particular challenges which arise in the Japanese environment. The degree of control exercised by the Ministry of Finance in Japan (MOF) is really quite remarkable by U.S. standards. In addition to establishing reserve standards, the MOF controls premium rates, dividend scales, and virtually all aspects of the business. Periodic updates of premium scales may be applied retroactively to existing business, which is somewhat of a nuisance from the standpoint of value-added analysis. It is somewhat like having your entire portfolio on an indeterminate premium basis. In fact, there has been a recent premium change in Japan just this year.

A second key issue in Japan is deregulation. The MOF has been reviewing the possibility for some time of rather significant deregulation, and greater competition both within the insurance sector and between financial sectors in Japan. It is unclear at this point how far it will go, but this situation does complicate your choice of assumptions, because there is a real possibility of some instability in lapse rates or earning rates or expenses as a result of the MOF move towards deregulation.

The issue of equity investments and capital gains also creates some confusion. Stocks are accounted for in Japan at the lesser of purchase price or market. Until the recent decline in the stock market in Japan, most of the older Japanese companies had unimaginably large hidden gains on their stock portfolios. If you are doing a value-added exercise at a large Japanese company, do you just bring the stocks (or at least those allocated to surplus) into the statement at market value? It seems at first glance that this is the obvious approach, but large company holdings are so vast that they can't unload them without affecting the market. A second point is that Japanese holdings in equities tend to be larger than for comparable U.S. corporations. If you have stocks supporting your existing block of traditional business, this complicates the choice of investment income assumptions.

Let me summarize by saying that if you proceed with a little care and caution, the complications which arise in the international environment usually have a good solution within a value-added framework. Value-added is an extremely flexible process, and is well-suited to the analysis of the kind of diversity which exists in international operations.

MR. TAYLOR-GOOBY: Now let's move on to Graham who I think is going to give a very different style of presentation and talk about how management of international subsidiaries is actually done in practice.

MR. GRAHAM CLAY: I think your earlier comment about my having left actuarial work behind was because there aren't any numbers in my presentation. The first thing I would say is that my father was an actuary and was a member of this Society. So, it's a particular pleasure to be able to speak to you. He worked for Metropolitan Life in New York for some years, and being a contrarian, he went back across the Atlantic in the summer of 1939. He was bilingual, and once said he managed to make a presentation concerning an employee benefit plan to an American company without using any of those words we spell differently. If you can sell an employee benefit plan, with a trade union involved, without using the word labor, you're doing well. As I say, he was bilingual but I'm not.

I spent 10 years working for an operation in South Africa. Initially, it was a branch. When I left, it was a subsidiary. So, I've been through all the processes of conversion from one to the other. It also received a stock exchange listing very shortly after that. For the last four years I've been working in the International Division in the head office in London, and it is a very different function. Interestingly, it also gives me insight into two very different perspectives, from the operational side and from the head office side.

VALUE-ADDED ACCOUNTING IN AN INTERNATIONAL CONTEXT

I'd like to start by offering you definitions of a few terms. The parent company has its head office, in our case in London. The operation in each of the foreign countries can be a subsidiary or can be a branch. It's convenient to use the word operation for both. The head office is in the home country, and the operation is in the host country. This home country/host country definition has come into very common usage in the European Community recently. I thought I'd use it, although it's not entirely essential to my presentation.

As Steve said, I work for the largest U.K. life office. Picking up on one of the comments that Steve Conwill made, you may be interested to hear that something like 80% of our total assets are in equities (i.e., ordinary shares and property) and we, as a group, own roughly 3.8% of all the equities listed on the London Stock Market. With those holdings, you can't sell very readily, and you do actually move the market significantly.

We mainly operate in the English-speaking world, or at least a number of countries which all claim English as their official language. We have some involvement in Europe, but not as much as before the war. Our Polish branch records went up in the Warsaw rising in 1944, and I can assure you it's great fun trying to deal with the claims. The office started expanding throughout what was then the British Empire in the 1930s, and that expansion all happened via branches. We've converted some of those old branches to subsidiaries. A lot of them nationalized. We've also acquired new businesses in other countries, first in the Republic of Ireland and some four years ago in the United States. That subsidiary has to trade as Jackson National because over a hundred years ago our board of directors had incautiously allowed one, small, American company to use our name. We are still on very friendly terms with them. I apologize to any of their members who are present for mentioning it, but it does cause confusion in some countries. More recently we have more recently been establishing subsidiaries rather than branches, but we are reviewing the position in the European Community and may well open branches there rather than subsidiaries.

We use value-added accounting in all our acquisition and disposal work and are reviewing whether to use it more generally in the management of business as a whole. We're a little bit wary because of the impact of changes in the assumptions. In Steve Conwill's Japanese example there was an item changing the lapse rate, showing a couple of million, or was it billion, of profit out of a total of 10. That makes it very difficult to track how well the management is doing because that profit is, to a large extent, the consequence of change in the actuarial assumption.

We also have the Association of British Insurers, the trade association, proposing a new concept for statutory reporting of profits earned (referred to as accruals accounting). You'd use some of the same methodology as for value-added accounting, but present it all rather differently. That's very much up in the air at the moment in Great Britain; therefore, it is not something I'm prepared to talk about.

PROBLEMS OF CONTROL IN INTERNATIONAL ENTERPRISE

Now, moving on from background to more general issues, what are the problems of control in international enterprises? The first point is that the basic product elements (mortality, morbidity, expenses, commissions, discontinuance rates) are universal. The packaging, though, is not, because this is very largely dictated by local taxation. However, despite all their similarities, I would emphasize that each country is different. Also the distribution systems differ. You have independent agents in some countries, tied (captive) agents in others, and what we refer to in Britain as independent brokers who have a statutory duty to give you best advice. That means the best possible policy, exactly tailored to your requirements. That is frequently described as regulation gone mad, but again, not the subject for this discussion.

The other point that occurs in international operations is that the ethics may differ between different countries, not just whether you offer bribes and backhanders, but styles of doing business, such as whether it is appropriate to be a good corporate citizen by contributing to charities and so on.

On the question of structure the key issue is whether you want to be a branch or a subsidiary in each country. The branch is reported fully to a home country regulator and is probably also reported to the host country regulatory authority. For example, our operation in Hong Kong is a branch, and it is not reported locally at all in Hong Kong. They rely on the Department of Trade and Industry in London to control our whole operation. Subsidiaries are not reported to the regulator in the home country, at least not in the U.K., if that's the parent country. However, subsidiaries are included in financial reports in both the home country and the host country. The conclusion to draw from this is that you're going to be regulated in at least one country, maybe two if you're a branch. You're going to report your profit in only one country if you're a branch, quite probably in two if you're a subsidiary. Also, you're going to have to report different numbers in different places.

In reaching this decision, one or two considerations are relevant. First, a branch cannot be insolvent if the parent is sound. You can't have an insolvent part of a solvent company. In theory a subsidiary can be allowed to go under. If it has your name on it, it's a lot harder, but in theory it's possible, and therefore, the regulator in the home country is not going to be concerned with the level of solvency in the subsidiary. Capital can be reallocated fairly freely between branches subject to exchange control constraints in some countries, and statutory life fund limits in others. A branch structure is, therefore, generally more capital efficient, and branches can reveal profits quicker even if they don't necessarily remit them back to the parent company because of constraints on cash flows. I would emphasize that whatever structure is chosen, it will almost certainly have significant tax implications.

The next issue is language. I started off with remarks about bilingualism. There's only one parent company. There are frequently many subsidiaries. It's important that the chief executive, at least, of each subsidiary is fluent in the parent company language. You may think this isn't essential. If everyone in the country uses English as a second language, as happens in Holland for example, we can have perfectly effective local board meetings in English, even though the majority of the members are Dutch, but there are risks. Certain phrases mean different things to us. If, for example, we say something is being given "conditional approval" or "approval in principle," or, "Yes, that's all right, but it's subject to formal approval later," you and I can perhaps work this out, certainly if we're face to face. It's harder on the telephone, but it can be very difficult for someone for whom English is the second language, mainly because English has a far larger vocabulary than any other language. Therefore, we have two or three different phrases with different nuances, all of which will get translated into the same phraseology locally. It can be very confusing indeed, therefore, for someone like my illustrative Dutchman who moves from one employer to another, still speaks English to his parent company, but finds the language has changed enormously.

Now, what are the consequences of all this? Well, first, the parent company tends to believe it understands its foreign operations. After all, they're no different. In fact, it believes that even when it doesn't understand them. This is particularly relevant at the parent company's board level. Directors tend to get a very brief overview of each of the subsidiary operations and they don't have any depth of understanding, but it can also happen at senior management levels in the parent company.

Another problem is that big organizations tend to rotate their management in their head offices. Each time there's a change of the management involved with an operation overseas, there's a learning period, and the management of that overseas operation has to reeducate the people with whom it deals in the parent. They're very likely to get frustrated by this, and the language difficulties add to that frustration. They say they spend the whole time talking to London and so they can't get on and run the business.

Now, a uniform worldwide reporting system appears to work, but, as I said, we have to report on various different bases and, therefore, we have to have multiple accounting systems. My theory is that accounting systems actually destroy value, not add value, and, as we have tried to say, managers are keen on adding value particularly for the shareholders.

The biggest problem with multiple accounting systems is if one country's reporting system shows profit is up for the year, and another set of numbers shows that the profits are down. This could happen in life business if there's a different allowance for the deferral of acquisition costs. We had it with our Canadian property and casualty subsidiary because of different treatment of capital gains in the way we reported the results in England and in Canada. Our Canadian board got thoroughly confused because they'd been given the results on the local basis while the directors coming from London had been given them on the U.K. basis. They had a beautiful discussion in which the chief executive was trying to explain to one group why the profits were up and to the other, why the profits were down, and of course, each half kept listening to the wrong explanation. So, as I say, there's a perfect recipe for confusion here. You have to define how you're going to assess your profits, and you've got to stick to it. The value-added system is one way by which this can be done.

Another consequence I'd draw your attention to is that each overseas operation is usually an order of magnitude smaller than any of the divisions within the home country. The total overseas is usually less than 25% of the total business. I'm sure you've all heard of the 80/20 rule of management. It works just as well with insurance businesses around the world, and the consequence is, of course, that insufficient attention is given to the businesses when they're going well. The parent generally doesn't give enough attention to them to ensure that they do better, and it can come up with a very ill-considered response when things are going badly. We try to overcome that situation by having a very small group of management in the head office to interpret each subsidiary. They have a detailed knowledge of it. I'll come back to that.

The other problem with multinational operations is that the operations overseas may find they have an inability to innovate because of either local peer group pressure to refrain from practices endorsed by the parent or restrictions from the parent to refrain from practices embraced by everyone in the local market.

In summary, the consequences of running an international operation are:

1. The parent misunderstands what it think it understands;

2. Newly involved staff at head office have to be educated and that could be a continuous process for the subsidiaries overseas;

3. You can get anomalies in how profit is reported;

4. Many of the overseas operations really are not significant to the operation of the corporation as a whole; and,

5. There can be an inability to innovate in the operations around the world.

COMPLEXITIES CAUSED BY MULTIPLE ACCOUNTING SYSTEMS

Now, coming onto the question of multiple accounting systems, as I said, you've possibly got to comply with regulatory returns in two different countries. Companies Act returns possibly again in two different countries, and you've got to do some management accounts. Which sort of management accounts do you want? Well, the topic is value-added accounting systems. The key solution to the question is to ensure that your accounting system in every country in which you operate generates all the data you require for all the purposes you may have. If you want confusion, have one item that has the same name and different values in two of the different systems. Admissible assets is a concept used all around the world, but the rules for admissibility tend to vary from one country to another. We can cope with the difference between cost and market value quite easily, but it's much harder to deal with things like admissibility.

Then there's the question of stock exchange valuation. Stock exchanges generally give a lower value to things they understand poorly. We, in Britain, think that they understand life offices rather poorly. Hence, as I say, there is a proposal under consideration -- I think it's regarded as a proposed draft recommended accounting practice very tortuous phraseology -- referred to as accruals reporting of profits. We hope this will convert the market from the perception of life offices as producers of dividends to assessing them on the basis of a price-earnings ratio like other companies and, therefore, we would hope of course, increasing their stock market value. The stock market also raises the question of what is the quality of foreign earnings? If it understands less about the country, it tends to disregard the value. We find these have to be assessed on our home country basis, even though the subsidiary returns are prepared locally on the host basis. Because our shareholders predominantly are domiciled in the U.K., they're looking at their sterling profits, not at profit in some notional worldwide currency but in assessing the viability of overseas operations we do have to assess future exchange rate changes. Differences in long-term interest rates may be some proxy over the very long run for differences in future exchange rates or inflation rates, but that's only one possible measure. Certainly, if you are running a flourishing business in a country whose currency continually depreciates, the profits you keep reporting back to the parent don't grow, and therefore, they say, why are we in this country? By comparison, going to one with a strong currency is a pleasure, but do get your capital in up-front.

One aspect of dual filing of returns is that our U.S. returns for Jackson National are filed some months before our U.K. results are published, and the stock market analysts in the U.K. inevitably try to predict the effect on our U.K. profits. That's because Jackson National is significant to our overall, worldwide results in terms of sales although they're not, unfortunately, yet in terms of profit.

NEED TO RECOGNIZE LOCAL CAPITAL AND RESERVE REQUIREMENTS

The need to recognize local capital and reserve requirements was mentioned earlier. Let me give you an example of that. U.K. companies are structured in two parts. There's a life fund, and for participating business the surplus emerging each year usually is split 90/10 between the policyholders and the shareholders, and there's a separately reported and published shareholders' fund belonging, needless to say, entirely to the shareholders. Long-established, traditional offices have very large financial resources within their life funds. Our worldwide margin was about 50% at the end of last year. It may be a little lower since the stock markets have fallen, but it's still a very high margin, and because of those resources the business growth can be funded within that life fund. That's one of the attractions to us in starting branches overseas rather than subsidiaries. The shareholders' funds, therefore, contribute very little to the security of participating policyholders, and the transfers from the life fund to the shareholders' fund are constrained. We have to demonstrate at all times that we're complying with the 90/10 requirement.

We're in the process of establishing a subsidiary in Singapore to take over the branch operation we've had for about 60 years, a branch which, incidentally, has somewhere between a 10-15% share of the local market. There's going to be a substantial margin in the life fund transfer, and as the appointed actuary (the statutory actuary) to that fund, I'm comfortable that it's sufficient to protect the policyholders' interests. Nevertheless, the Monetary Authority of Singapore, which regulates insurance among other things, is requiring us to put up S$25 million of share capital (about $15 million U.S.), rather than the statutory requirement of S$5 million, five times the statutory minimum. This amount does not add significantly to the security of the policyholders in my actuarial view, but it's something they require for legislated security type reasons. I would draw the point from this example that the practical level required for anything may be significantly higher than the statutory minimum (as laid down). The consequence of this is that we're transferring capital from the parent to the subsidiary, and we won't be able to release it back from the subsidiary to the parent. It has effectively, therefore, been converted from free reserves within the group to working capital locked within the subsidiary. If that capital is excessive, the return the shareholders will get overall from their investment in the subsidiary will fall as they'll only be getting from the excess a return on investment in a portfolio rather than an investment in business generating a higher return.

A PRACTICAL FRAMEWORK FOR CONTROL

The control framework has to be adjusted to fit the particular circumstances of each overseas operation. I emphasize they're not all the same. We have a self-contained, local, management team. We occasionally use expatriates, particularly when we're starting up new operations, but mature operations are almost always a purely local management team. The key is that the chief executive officer is fully accountable for results. The primary responsibility of management in the head office is to ensure that they have the right chief executive for each local operation and that they manage the succession from one chief executive to the next properly. As you will gather from that, it's not our habit to send chief executives from one country to another around the world, going from smaller to larger organizations. We expect to have a local national.

Despite the comments from Steve Conwill, we expect to report all profit on the home country basis because that's where our stock market quotation is. Companies Act returns are for the whole group, and under standard accounting practice we have to account on a fairly uniform basis worldwide. The local basis is significant only for solvency issues, including maintenance of adequate capital and reserves, and hence cash flows via payment of dividends back to our shareholders.

We have a local board which mixes nonexecutive local directors and executive directors from the head office. The chief executive of the subsidiary or branch overseas (we have boards for both) is accountable to head office management for the performance of the business. However, the local directors are there to ensure good communications with the local business community and to add to the corporate acceptability, such as in matters of ethics and relations with the local government. Also, in some parts of the world, having local directors reduces the risk of being perceived to be an economic colonialist. This is typically a Third World reaction rather than one that you would get in Europe or North America, but I can assure you it does exist. Having local directors can also help to clarify the situation for the chief executive if he's subject to conflicting pressures from his parent company and locally. We've had one or two extreme examples. In Rhodesia, when it declared independence unilaterally back in the 1960s, sanctions were imposed. In consequence, technically the management in Rhodesia was not allowed to speak to the management in London, and there certainly weren't to be any cash flows between the two countries. It made it more than a little difficult for the chief executive.

The head office exercises tight financial control over all its overseas operations. How it does that depends on the accounting system. The value-added method is one that has its considerable uses. In the head office we have a team of one actuary and one accountant in the life operations, an accountant and a property and casualty (P&C) specialist in the P&C operations, and that team of two, plus probably one of the directors of the division, develops a relationship with the local management team and is used as a translation service and interpretation service for all two-way communication. They explain to the people overseas what people in London want and explain to us in London what the people overseas mean to say rather than what they're actually saying. I do keep emphasizing this language point. We predominantly operate in the English-speaking world, but we do still have these communication difficulties.

The other attraction of this structure is that it personalizes the relationships between the senior management of the operation overseas and the management in London. They don't feel so remote in the decision-making process. It comforts them that their problems are appreciated even though they are, almost without exception, relatively small parts of the corporation.

And, finally, just to show that we are flexible, we have a mixture of branches and subsidiaries. We operate a subsidiary in the Republic of Ireland totally separate from our operation in Northern Ireland which is part of our main U.K. operation, and that's despite almost identical legislation. Our American and Canadian life operations are totally and completely separate. One is based in Lansing, the other in Kitchener which are about a hundred miles apart. There is no uniform structure which works well in all circumstances. Regrettably, there's no uniform accounting system that also works well in all places, at least in my opinion.

MR. TAYLOR-GOOBY: As the actuary who actually works in actuarial work rather than the actuary who's now manager, I'm going to return back to one or two more technical points and talk about some of the practical uses of value-added accounting, but particularly pick up on some of Graham's points. One is the importance of the initial setting of assumptions and how easy it is to influence the answers you get out of the system with assumptions that you choose. And second is whether the home country management or the host country sets the reporting basis.

Coming back to practical uses, value-added accounting has really been developed in the U.K., helped by the lack of any sensible reporting basis. I think we're all aware of the complete shortcomings of statutory accounts as a method of profit reporting. Within the U.K. there are, very broadly, about 120 insurance groups operating. Twenty-five of these are mutuals, and hence, have no need for any profit reporting basis whatsoever, although talking about things like value-added accounting for mutuals and internal ways of measuring performance is another subject which I don't want to get into right now, but might at question time. Another 15 or so are subsidiaries of U.S. companies reporting on GAAP. And out of the remaining 80 companies, my best estimate is that 50 are using value-added as an internal reporting measure, and out of those 50, some 20 are actually publishing the embedded values in the balance sheet of their companies. A smaller number are actually including the change in the embedded value in the profit figure. Now, as Graham mentioned, there are a lot of changes going on in the U.K. in the accounting basis. Accountants are getting involved, possibly for the first time, in the way we report profits. We may end up with something rather different but still incorporating quite a few of the concepts of value-added.

USES OF VALUE-ADDED ACCOUNTING VERSUS OTHER ACCOUNTING SYSTEMS

There are several uses of value-added accounting as opposed to other forms of accounting. The first one is monitoring the value added by new business. I mentioned earlier that GAAP actually fails, in my opinion, to give good information on the profitability of new business. The second one, which is one I'll examine in a bit more detail, is for monitoring the reasonability of assumptions used, because any reporting system, whether it's GAAP, statutory, or value-added, depends on actuarial assumptions. Another common and very popular use, particularly among the senior executives, is in determining incentive compensation. This use is often the driving force for setting up the value-added system. We've already talked a little about published accounts in the U.K. Embedded values are frequently used in mergers and acquisitions in the U.K. and Europe, either as part of an appraisal value or as part of a projection of value-added profits, because there's a lack of any really good information coming out of the statutory profit basis. The main use, in my view, is a system of reporting integrating the philosophy of pricing with reporting and in some cases, the incentive compensation.

With regard to integrating pricing and monitoring, most companies already basically adopt a value-added philosophy when they price their products for a specified return on capital. The standard profit testing method of pricing is already using that philosophy, and embedded values are really just adding up many profit tests used for pricing new business and actually tracking them as the business develops. Just one point. The capital invested in the products doesn't just extend to the statutory reserves. It also extends to the required surplus. So, just pricing isn't enough. We also have to monitor how well those pricing assumptions are used and how they develop in the future. So, we have two things that are particularly important to monitor, the new business value and the development of in-force value. I have a brief example, with quite a lot of numbers. I don't want to get into too much detail on the numbers but just pick out a few of them to show how this can be done.

I draw your attention to Table 8. This is the embedded value of the company at the start of the year of £200 million, divided up into free surplus of £20 and the value of in-force business of £180. Free surplus is not the net worth but totally free surplus.

TABLE 8
Embedded Value Analysis
(£ Millions)

Beginning of Year	
Free surplus	20
Value of in-force business	180
Embedded value	200

In Table 9, the start-of-year embedded value of 200 and the increase in the value over the year of 25 represent a 12.5% rate of return. This is a company that actually plans and sets its target rate of return at 15%, and the lines in the middle analyze the variance. So, as Steve says, there's a planned return of 27 there, but in fact, the return achieved on the in-force business is 22, and there have been variances of five. And, again, looking at the new business, for the amount of business sold the contribution expected was 14, but there are variances of four. There are various ways of splitting this up, but this serves to highlight the problem areas into which you want to dig a little further and find out where the problems are really occurring and whether the management needs to take action to rectify them.

TABLE 9

Embedded Value Analysis
(£ Millions)

Beginning of year	
Free surplus	20
Value of in-force business	180
Embedded value	200
Increase during year	
Interest on free surplus	1
In-force business	
Planned return at 15%	27
Variance	(5)
Value of new business	
Planned return at 15%	14
Variances	(4)
Overhead expenses	(8)
Increase in value	25
Rate of return	12.5%

One of the first ways of splitting this up is into lines of business. Table 10 is the same as Table 9, but split up into three lines of business with a corporate section where the free surplus is held.

TABLE 10

Analysis by Line of Business
(£ Millions)

	A	B	C	Corporate
Beginning of year				
Free surplus	---	---	---	20
Value of in-force business	100	60	20	---
Embedded value	100	60	20	20
Increase during year				
Interest on free surplus	---	---	---	1
In-force business				
Planned return at 15%	15	9	3	---
Variances	1	(5)	(1)	---
Value of new business				
Planned return at 15%	4	6	4	---
Variances	---	---	(4)	---
Overhead expenses	---	---	---	(8)
Increase in value	20	10	2	(7)
Rate of return	20%	17%	10%	N/A

Now, that's an awful lot of numbers, but, again, I'd just like to draw your attention to a very small number of them, particularly the variances in the value. The variance in increase in value of the in-force business shows that Product Line A has a very small variance and, in general, the value of the in-force business has developed as expected. There seems to be a very serious problem in Product Line B because we expected an increase of nine, and we're missing it by five. When calculated on the basis of pricing assumptions, we have values of new business which can be compared with the sales target and the expected added value, but in Product Line C there's a variance of four which totally wipes out the value of new business, and that's even costing it on a marginal basis because some overhead expenses have already been taken out.

Table 11 analyzes the various sources of variance on in-force business. This sort of analysis can immediately draw your attention to where the management should be directing its greatest concern, and in this particular example it's clearly the interest spread achieved in Product Line B. Now, that can be one of two things. Perhaps it was just a mismatching loss; the assets were badly matched when interest rates moved, and it's an isolated occurrence. Alternatively, it could be that the assumptions are wrong, and this sort of analysis gives you a continual check on the assumptions that you're using to see whether they're appropriate or not.

TABLE 11

In-Force Business
Source of Profit/Loss
(£ Millions)

Source of Variance	A	B	C
Interest/spread	(1)	(4)	--
Mortality	1	1	1
Withdrawal	1	(1)	(1)
Expense	--	(1)	(1)
Other	--	--	--
Total	1	(5)	(1)

Again, we can do the same thing for new business. Table 12 shows clearly that the problem in Product Line C is that the acquisition expenses have caused a very substantial overrun against what was priced for. So, again, does that indicate a change of assumption for the future, in which case we have to reprice the product or withdraw it, or does it indicate something that can be corrected and brought back into line? I would strongly recommend that the value-added system without this sort of analysis is really only half and perhaps even less of the valuable information that you can get out of the system, and this sort of variance analysis provides the early warning of the problem areas in a self-check of assumptions. One thing Graham mentioned as a manager was his concern that you can easily get whatever answer you want by choosing the assumptions you want. Thus, this self-check is very important and it also provides feedback into the pricing area. It's very easy to use pricing assumptions and then never look at them again, but this sort of system gives you continuous feedback on where you are.

TABLE 12

New Business
Source of Profit/Loss
(£ Millions)

Source of Variance	A	B	C
Interest/spread	--	--	--
Mortality	--	--	--
Withdrawal	--	(1)	--
Expense	--	1	(4)
Other	--	--	--
Total	--	--	(4)

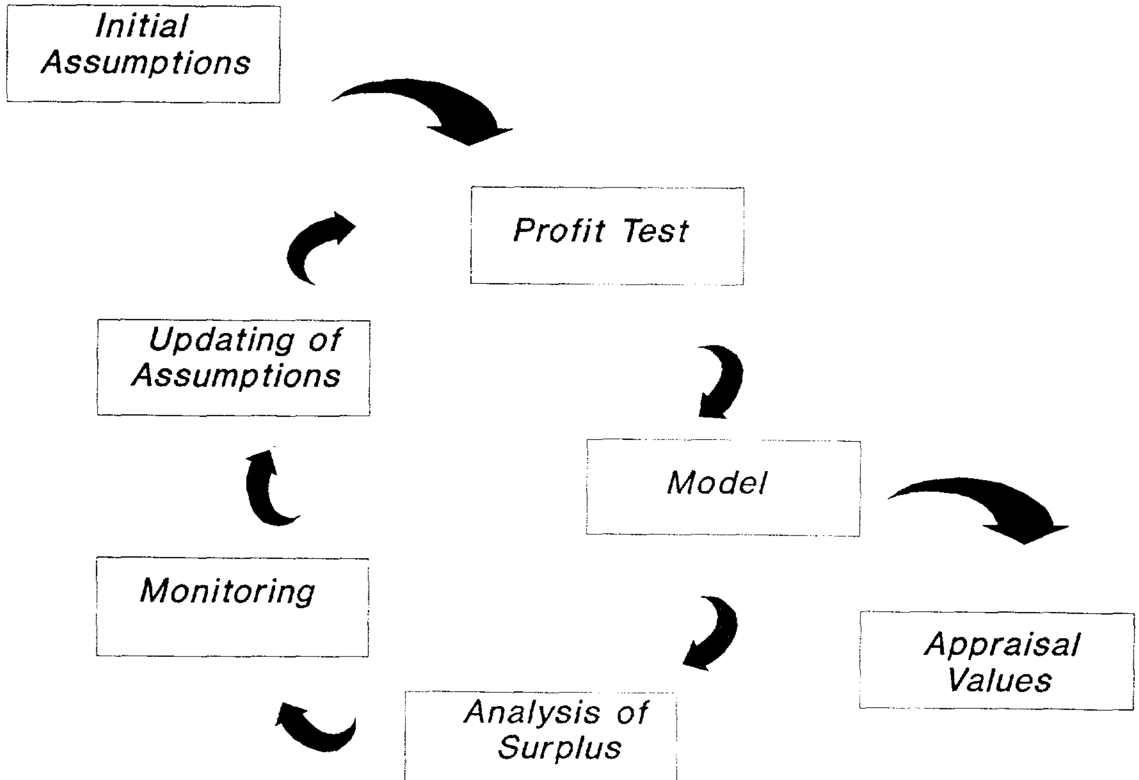
This whole cycle can be summed up by a name that was coined by Jeremy Goford in a paper to the Institute of Actuaries which was a "control cycle," starting off with initial assumptions for profit testing, setting up a company model based on those assumptions, and a by-product of that can be the appraisal values of the company, but analyzing the movements in value that come out of the model and continually updating the assumptions to bring them in line with reality (see Chart 1).

I said earlier that value-added accounting is intended to reflect the strategy of the company, and to get that strategy to work there are three aspects that we have to think about. First of all, is a strategy well-communicated? If it's not, then there's little point in having it, and one of the best ways to communicate it is to make people report their profit figures in a way that is closely tied in. Second, monitor how well you're doing on that. And the third leg that can be added is motivating your staff and managers in subsidiaries in overseas companies to perform in the way that the strategy dictates rather than for other agendas they may have.

That leads me to the integrated incentive compensation concept where the bonuses for the various managers -- this is usually only the senior executives -- can be tied in with the increase in embedded value, and that's often an attractive way to get such a system installed. It makes people cooperate better and also makes them pay a lot more attention to the numbers. The common way of doing that is to set up what we refer to as a super growth scheme where it is assumed that the target rate of return occurs naturally, and the management is rewarded in proportion to growth in the value over and above the hurdle rate.

I'd like to close by summarizing some of the advantages of value-added accounting. First of all, GAAP and various other statutory reporting systems were basically developed by accountants, and I think we as actuaries probably feel that we can design a system that more closely tracks the key performance indicators of an insurance company. The value-added system was developed by actuaries and it's tailored for insurance companies. We are actually seeing this system used increasingly throughout the world. It's extensively used for internal reporting in the U.K. It's also spreading and is quite heavily used now in The Netherlands and in some other continental European countries, including

CONTROL CYCLE



France, and to a much more limited extent in Germany. I also see increasing use over here in North America, but I think to date, it is largely confined to subsidiaries of the big multinationals. So, it will be interesting to see whether it gets increasing use in future years.

I'd like to conclude the formal part of the presentations and take questions.

MR. ISADORE JERMYN: You made mention of the use or nonuse of value-added by mutual companies. Could you comment on that in the U.K., please?

MR. TAYLOR-GOOBY: Well, when I said that mutual companies in the U.K. were not using value-added, I was principally thinking of the published profit reporting, and in the U.K., mutual companies do not report profits at all. However, I do know a number of mutual companies that do use value-added systems to track their internal performance. In the U.K., essentially, mutuals have to look after their internal fund of capital; whether it's being distributed with new business by setting bonuses too high, it's not earning its proper return, or cross-subsidies exist between the in-force policyholders and new business. The value-added techniques apply equally well to that. So, perhaps I was misrepresenting the picture by suggesting that they were not using the system. As an internal performance measure, some mutuals do use the system.

MR. JERMYN: Do you have any idea as to how many or what proportion, particularly of the much larger mutuals in the U.K., are, in fact, using it for internal reporting purposes?

MR. TAYLOR-GOOBY: I would say a relatively small proportion. Out of those 25 mutuals, a lot are fairly small mutuals, and there's a much smaller number of the larger Scottish mutuals and two or three large English mutuals. I can only speak for the ones that I've talked to, and I know of three who are using this concept.

MR. DANIEL BRIAN SETTLE: Graham, you mentioned that your company is looking at possibly going to a value-added basis for looking at how you did during the year. Could you talk about what you see as the advantages and disadvantages of value-added as opposed to the more traditional ways of looking at that?

MR. CLAY: I could, but I could also go on for a couple of hours. The key problem with the more traditional way of approaching it is that there is a different custom in almost every country. You are, therefore, trying to put together a fruit salad of results on different bases for the different countries. You can standardize that onto the U.K. basis as we do -- reporting our profits after adjusting to the U.K. basis. I think Steve alluded to this in his introductory remarks. However, it can be very difficult making those changes from a very wide product range in different countries, many of which just have no real equivalent in the U.K. What do we do with them? There's always this sort of "fruit salad" problem.

Value-added is a more uniform methodology or approach that works pretty well for all the shareholder-owned businesses. It gives us some qualms on the 90/10 life fund businesses, the participating businesses, because you've got a different source of capital and you've got a different effect from expense overruns and so on. So, there's an element of adding chalk and cheese, but it's much more standardized, and that's why we see attractions in it. It means that you've got much more opportunity to add up 15 or 20 different operations in different countries and say that the total actually means something rather than merely being the arithmetical consequence of what you've done. Does that give you a bit of a flavor? As I say, I could go on at great length, but I don't think that would necessarily help.

MR. SETTLE: Well, to continue on, what are the big disadvantages? I know changing the assumptions and the impact with that are disadvantages but are there any other major disadvantages?

MR. CLAY: It comes back again to saying you've got to look at the profit cycle product by product. You're going back into thousands of products when you've gone around the world doing it. You've got to decide at what point you want to stop, and therefore, one would tend to use only the significant products in each country and make some slightly arbitrary adjustment for the bits and pieces on the end of it. It comes back to practicalities more than anything else. It's also a question of resources. Some of our overseas operations have one actuary and one accountant. If we keep changing the bases, they just love us!

MR. OWEN A. REED: Could I ask a couple of quick questions of Steve Conwill in relation to Japan? First, you mentioned that some U.S. companies were interested in changing the Japanese reserves to U.S. reserves, if we can describe it in that way. Does that include the reserve method and all the actuarial assumptions? And the second point is, although I don't know much about Japan, I understood that realized capital gains are used to fund internal dividends, and if that's the case, then you have to assume that realized capital gains were going to be consumed in the future in the form of dividends.

MR. CONWILL: On the first question, many U.S. companies operating in Japan are, in fact, using both the reserve methodology and assumptions used in the U.S. to reserve their Japanese basis business in the U.S., which I think to an actuary seems a little bit strange. On your second question, on the issue of realized capital gains, there is currently a special termination dividend which is theoretically funded by investment gains. Right now the MOF is considering a proposal to require that both realized and unrealized capital gains be reflected in the dividend formula, and there's quite a lot of controversy over there with respect to that issue. There's been consumerism in Japan and concern that the large mutuals have built up huge, unrealized and unreported capital gains, and they're looking for ways to pay those out in the dividend formula.

MR. TAYLOR-GOOBY: I'd like to just add that in the U.K., where it's also common to invest in equities, it really doesn't seem to make a lot of sense to distinguish between realized and unrealized gains. That's a way of easily fiddling the results whichever way you want if a distinction is made, and typically in value-added accounting for U.K. companies, we'd look through that. Also, recognize that there's no prospect of actually realizing the equity portfolio by not necessarily paying too much attention to the current market value. There are ways of smoothing that which some companies use. That again is another large issue.

MR. THOMAS G. KABELE: I have a follow-up question on the Japanese. How big are the Japanese companies if they value all their assets like they do in the U.S. (i.e., at market)? And could you also explain the Zillmer reserve method? Is it straight line? And how are the Japanese companies taxed?

MR. CONWILL: On the value issue, Nippon Life, the largest Japanese company in terms of their reported value, is about the size of Prudential or maybe somewhat larger than Prudential. Figures that I have seen on the value of their unrealized stock portfolio put that in the magnitude of 30-40% of the total assets of the company. That was at the end of the last fiscal year which closed in March 1990, and there's been a considerable drop since then. Some Japanese companies also have large, unrealized capital gains on their real estate portfolio. So, if you were to value the top couple of companies on a market-value basis, you'd find almost certainly that they're bigger than Prudential in the U.S. The Zillmer basis is actually a five-year Zillmer basis which is used by the new companies in Japan. The older companies are using an NLP basis. The five-year Zillmer basis is very similar to a commissioners reserve valuation method (CRVM) reserve with the expense allowances amortized using interest and mortality over a five-year period. On the tax issue, Japanese statutory and tax income are very similar. There are a few differences in the expenses that you can deduct on a tax basis, but the statutory and tax bases are more similar in Japan than they are in the U.S.

MR. EDWARD C. JARRETT: I have a question on the value-added model with regard to two aspects of the model where I don't feel it fits very well. The first type is contracts that have a very short-term, claims-related type of aspect, group health, for example, and the second type of contract is the straight investment-oriented contract. The value-added model tends to favor or best account for long-term level premium types of contracts. What do the panelists think about applying the model to other contracts where the value of that contract is much more subjective.

MR. TAYLOR-GOOBY: I think I could add a couple more types of business to the list where it fits less well, particularly reinsurance business and perhaps also group pensions investment business. The difficulties there in general are that it's a more uncertain process setting assumptions as to what experience is going to be for the future. We can predict individual life business fairly well and monitor much more closely, but for reinsurance business there's much less data to set assumptions and a much more uncertain outcome. I don't think that necessarily invalidates the concepts. Also talking about the types of business that you're talking about, very-short term business, it's still important to monitor the return on the capital invested. I think a lot of the other systems that you use, perhaps looking at claims ratios, miss one of the key items that particularly the multinational corporation wants to see. Is it getting its target return on the money that is put into that business? So, as I take your point that it can be more difficult, I think there's still some value in remembering that key concept.

MR. CONWILL: To the extent that you've got a lot of difficulty in choosing your assumptions, you may do some sensitivity analysis just to see how variable the value is to changing your assumptions.

MR. CLAY: I rather took it for granted that you would have done the sensitivity analysis anyway on all these profit tests and identified what the key variables are. You're perhaps highlighting that for certain products are not the common sensitive parameters but ones that are slightly different to reflect the nature of the product.