Pre-Workshop Materials

Workshops 1 and 2

Case Background

Overview

Good Life Dairy Company Limited ('GLDC') is a company that produces and sells a range of dairy products. Its operations are mainly in the PRC, and its head office is in Hong Kong. The company was established about twenty years ago, but four years ago it obtained a listing for its shares on the Hong Kong Stock Exchange (HKEx).

Most of the company's products are sold within PRC, but there are also some sales to Hong Kong and Macau. Sales to other countries, particularly the United States and Europe, fell significantly during the melamine scandal in 2008, and have not recovered since.

The dairy products industry and market in China

The consumption of dairy products in China has increased by over 2,500 per cent since 1980, when the average consumption per individual was about one kilogram each year. Dairy products are consumed much more by urban residents than by rural residents, and the huge growth in the industry is attributable largely to the urbanisation of the population.

As the standard of living has risen, there has also been a growth in the demand for high-quality dairy products, and an increasing proportion of total sales are for 'high end' products. The producers of dairy products have welcomed this continuing development, because they provide higher gross profit margins than basic milk products and milk powder.

An important development in the 1990s was the introduction of ultra high temperature (UHT) processing. UHT production allows milk to be transported long distances without refrigeration. UHT milk can be preserved under constant temperature for a fairly long time, and it is ideal for stocking by retailers, since there is no requirement to keep it in refrigerators. (The development of UHT milk also overcame the need for milk to be delivered daily to households and consumed early in the morning, before its quality deteriorated and it became impossible to drink.)

The development of automated processing systems and sophisticated distribution systems were important, because even UHT milk has a limited life (about 45 days for the most popular milk products). Improvements in the capacity and speed of distribution systems made it possible to transfer milk quickly to consumers.

Although production centres for making dairy products are located throughout China close to areas where there are large numbers of cattle, most dairy farming and raw milk production is in the northern region of China.

Some large manufacturers of dairy products have established some dairy cattle ranches, but nearly all milk is supplied to manufacturers such as GLDC from independent dairy farmers. There are several ways of collecting milk from the farmers, but the most efficient system involves milking stations, where farmers take their milk or take their cows to be milked. To ensure their milk supply, companies such as GLDC have constructed milking stations in villages and towns near large dairy herds, and then leased the milking station to individuals who then undertake to supply all their milk to the company.

Until a few years ago, dairy farming was more profitable for small farmers than growing maize or potatoes, but with the growth of large-scale dairy product manufacturers, increases in prices for farmers did not keep pace with rising costs, and dairy farming ceased to be profitable for many small farmers. As a consequence, dairy product manufacturers have encouraged the development of large scale dairy ranches. Even so, there has recently been strong upward pressure on prices for raw milk.

In spite of the milk scandal in China in 2008, and consumer concerns about the quality of milk products, total demand in China for dairy products has grown rapidly, and current forecasts are for a 10 per cent annual growth in market demand for the next few years.

The milk scandal in 2008

In 2008 several producers of dairy products were accused (and convicted) of putting melamine in their products. Melamine is an industrial material used in the manufacture of plastics, but some dairy companies added it to their products in order to make them appear more rich in protein.

A large number of individuals were made ill from consuming the infected products and a number died.

Contaminated products were also exported from China to other countries, creating an international scandal.

Company operations

GLDC currently operates 14 production centres in different regions of PRC, and its total annual production capacity is currently 3.8 million tons. Capacity exceeds sales demand at the moment, but additional capacity will be needed to meet the expected growth in demand within the next three years.

As a newly-listed company GLDC might have been badly affected by the milk scandal, but this was not the case. A large number of producers of dairy products went out of business, so that several large producers were able to continue to grow their businesses, and GLDC capitalised on this in the local market.

At GDLC two important objectives are to continue to increase the production of milk products and also to achieve high standards of product quality and product safety. It has invested heavily in new production technology and technical advice, which it purchases from Australia and the USA. The company has a continuing programme of investment to increase production capacity, reduce costs and protect product quality. The equipment reduces costs because it is more efficient. It reduces waste in production and has improved water re-cycling within the production process. The packaging process has also been automated at most production centres.

GDLC also has a strategy of trying to ensure supplies of high quality milk from dairy farmers. A major concern is that there may be further problems with the health of dairy products, particularly in the event of a major outbreak of disease among cows, and poor sanitation in dairy farming. Controls also need to be applied over suppliers, to prevent them from contaminating their milk, for example by adding water to increase its volume. In addition to constructing milking stations, the company also invests heavily in providing technical advice and support to cattle farmers. It operates technical centres in several locations in PRC, and it provides advice on:

- improving the safety of cattle feed
- cleaning milking equipment
- inspecting the health of cattle
- reducing the time for transportation of milk to milking stations and other collection centres.

Product range

The products that are made and sold by GLDC are divided into three types:

- Liquid milk (including yoghurts)
- Ice cream
- Milk powder

The production centres for ice cream and milk powder obtain their milk from the liquid milk production centres, for which they pay cost price plus a handling and distribution charge of 25 per cent.

The liquid milk products include basic UHT milk drinks, pasteurised milk, yoghurt and 'high end' quality products, such as flavoured milk drinks and high protein milk drinks.

Sales of liquid milk products account for about 90 per cent of total sales by value. About two-thirds of milk products are liquid milk and 25 per cent of sales are branded milk drinks. Only a small proportion of sales are attributable to yoghurt. Actual sales of milk products in the previous year were about 3 million tons.

Sales of ice cream in 2011 totalled 122,000 tons. GLDC has found it difficult to increase sales of its ice cream products because there are several good quality rival products in the market selling at a lower price.

Sales of milk powder are small and are not growing at the same rate as sales of milk drinks or ice cream.

GLDC has a research and development centre, where it continues to develop new 'high end' products to add to its product range

Distribution and sales

The company's products are sold mainly through retail stores. Most products (with the exception of ice cream) do not need refrigeration, so milk is sold widely by a large number of local stores. Major producers of dairy products compete with each other, and there is a continual struggle to promote the image of the company's brands.

GLDC spends heavily on advertising to promote an image of high quality and healthy living for its milk products. It has recently begun to target the mothers of young infants for sales of its leading brand of milk powder. In its advertising of milk powder GLDC promotes the fact that its milk powder does not contain any dangerous additives that may be harmful to the health of babies.

The board of directors

The board of directors of GLDC consists of 12 members. There are four executive directors:

Stanley Leung: Chief Executive Officer (CEO)

Penny Woo: Operations Director

David Chan: Chief Finance Officer (CFO)

Richard Lee: Sales and Marketing Director

There are eight non-executive directors, including the chairman Justin Chung.

Three of the non-executive directors are independent, to the satisfaction of HKEx.

Corporate governance and articles of association

GLDC has adopted the Code of Corporate Governance Practices (the CG Code) in Appendix 14 of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the Listing Rules).

GLDC is registered in the Cayman Islands and in keeping with company law there is no provision in its articles of association for pre-emptive rights for shareholders.

Strategies for the future

The board of directors has a major strategy meeting each year. In the most recent strategy meeting the directors agreed on the following strategies, most of which had already been implemented as a part of the company's formal five-year plan.

The board of GLDC has agreed the following strategies.

- To acquire modern technology for dairy production and to introduce more automation into the production, packaging and distribution processes.
- A strict policy for the selection and supervision of milk suppliers, to ensure that milk quality standards are high, but that supplies of milk are sufficient to meet GLDC's requirements. The board has decided against establishing its own cattle ranches in Northern China.
- To promote the 'high end' brands of GLDC's milk drinks products and to increase the proportion of 'high end' products in its sales and its product portfolio. Examples of high end products include energy drinks, health food drinks, weight-gain and "gym" drinks for sporty teenagers.
- This should be achieved through continuing investment in research and development for new products and new markets and high spending on advertising to promote the company's brand names and strengthen customer loyalty. One highlighted new high-end market is product for the "sporty teenagers" in metropolitan cities market.
- To continue market penetration into the coastal cities in China and/or Hong Kong.
- To develop a new market in the currently unexplored rural areas of Western China.
- To expand the production capacity of the company's milk drinks operations, including yoghurt production. This should be achieved through a combination of expanding production capacity at the company's existing production centres, or possibly through the acquisition of a rival dairy products manufacturer in PRC.
- To investigate the possibility of entering new markets through establishing a business operation in Europe or in Southeast Asia, by acquiring a foreign dairy products manufacturer.

Year to 31 December 2011: financial highlights

The CEO (Stanley Leung) and CFO (David Chan) of GLDC are pleased with the growth of the business during 2011, which they attribute to the continuing capital investment in the business. They believe that the company will soon be able to compete equally with the largest competitors in the industry. However, they are not satisfied with the financial performance of the company during 2011 and they have some concerns about the financial position as at the end of 2011. They believe that there are several problems to be addressed so that the company can continue its successful route towards growth.

In the most recent financial year, profits were lower than in the previous year, in spite of growth in total sales.

Competition in the dairy products industry within PRC is intense. The strength of the competition, and the reluctance of customers to pay higher prices for dairy products in spite of the high rate of inflation, made it difficult for companies to raise the prices of their products during 2011. At the same time, due to competition between dairy products manufacturers for supplies of high quality milk, the prices paid to dairy farmers for their milk went up substantially during the year. As a consequence profit margins at GLDC came under pressure, and management have begun to look for ways of reducing costs.

Spending on advertising during 2011 to promote the sales of both new and existing milk products was 15% higher than in the previous year.

The objective of maintaining high standards of milk quality has meant that the company do not use all the milk that they buy from dairy farmers. Thorough checks are carried out on milk quality after it has been delivered to GLDC's collection centres and processing centres. When the quality of the milk does not meet minimum acceptable standards, the milk is disposed of. Even so, some low-quality produce does reach the consumer, and during 2011, milk products with a sales value of RMB 280,000 were returned from customers for quality reasons.

The financial results for the company in 2011, and comparative figures for 2010, are summarised in Appendix 1.

GLDC relies mainly on sales from its liquid milk division for sales, growth and profits. Ice cream products made a small profit last year, but milk powder made a loss, and the ice cream products division and milk powder products division have not received much new investment in recent years.

Segmental performance (for the three product groups) is summarised in Appendix 2.

The company invested expensively in its milk products division and in its technical support for dairy farmers during 2011, and in order to do this, the company borrowed extensively during the year. Management are convinced that the benefits of its large investments will show in higher sales and profits in 2012 and 2013. Almost all sales are within PRC, Hong Kong and Macau, following the collapse in export sales following the milk scandal in 2008.

Cash and dividends

Because of its high capital spending, GLDC does not have large cash resources. It holds its cash mainly in Hong Kong dollars, but it also has some US dollars. It does not have any Australian dollars (AUD).

Borrowings increased substantially during 2011, but the management of GLDC considered that the low interest costs around the world made borrowing an attractive financing option. Most borrowings are currently in RMB with local banks in PRC, but the company is considering the option of borrowing in the future in USD from banks in Hong Kong or the USA, in order to benefit from the low interest rates that continue to be available.

There is a growing concern that because of a recent strict lending policy for banks introduced in PRC, bank loans will be difficult to obtain next year at low rates. There are reports that many businesses are turning to private lenders in PRC for liquid funds, but that interest rates of over 40 per cent are being charged.

Dividend payments are high relative to profits. The company paid a final dividend of RMB 95 million in 2011 (out of 2010 profits). The board of directors takes the view that its shareholders expect the company to pay high dividends, even when profits are restricted. They believe that as the company grows and profits rise, dividend payments will be increased further in the next few years.

Appendices

Appendix 1: Summary financial statements for 2011 and 2010 for GLDC

GLDC Limited

Consolidated income statement for the years ended 31 December

(All figures are in RMB millions)

	2011	**2010**
Revenue	17,700	15,500
Cost of sales	(13,500)	(11,730)
Gross profit	4,200	3,770
Other income	125	115
Sales and distribution costs	(3,365)	(2,895)
Administration expenses	(580)	(520)
Other operating costs	(40)	(56)
Operating profit	340	414
Finance costs	(204)	(138)
Profit before taxation	136	276
Taxation	(34)	(69)
Profit after taxation (attributable to shareholders)	102	207
Dividends: final		95
EPS (basic) RMB	2.04	4.14

GLDC Limited

Consolidated statement of financial position for the years ended 31 December

(All figures are in RMB millions)

	2011	2010
Non-current assets		
Intangible assets	475	315
Property, plant and equipment	3,640	3,240
	4,115	3,555
Current assets		
Inventory	710	618
Receivables and prepayments	3,892	3,058
Cash and cash equivalents	23	67
	4,625	3,743
Total assets	8,740	7,298
Equity and liabilities		
Equity attributable to owners of the parent company		
Share capital	500	500
Other reserves	1,420	1,420
Retained earnings	1,686	1,674
Total equity	3,606	3,594
Non-current liabilities		
Bank loans	2,250	1,705
Current liabilities		
Trade payables and accrued expenses	2,200	1,807
Taxation	34	69
Bank loans repayable within 12 months	650	123
Total equity and liabilities	8,740	7,298

Appendix 2: Segmental performance in 2011

An analysis of segmental performance in 2011 is shown below:

Table 1: sales revenue

Product line	Sales in 2011 RMB million	Sales in 2011 % of sales
Liquid milk and yoghurt	16,650	89.6
Ice cream	1,752	9.4
Milk powder	178	1.0
	18,580	100.0

Sales include internal sales of milk from the liquid milk products division to the ice cream and milk powder divisions.

Table 2: operating profit/(loss)

Product line	Operating profit/(loss) in 2011 RMB million	Operating profit/(loss) in 2011 % of profit
Liquid milk and yoghurt	342	100.6
Ice cream	35	10.3
Milk powder	(37)	(10.9)
	340	100.0

A more detailed analysis of profitability is given in Table 4 below.

Table 3: assets and liabilities

Product line	Assets and liabilities at 31 December 2011 Assets RMB million	Liabilities RMB million
Liquid milk and yoghurt	7,270	4,702
Ice cream	1,039	697
Milk powder	292	200

Assets and liabilities include inter-segment amounts receivable and payable for internal transfers.

Table 4: detailed analysis of profitability

All figures in RMB millions	**Liquid milk**	**Ice cream**	**Milk powder**
Sales to external customers	15,770	1,752	178
Internal transfers of milk	880		
Total revenue from product sales	16,650		
Cost of sales			
Cost of transfers of milk products	-	(790)	(90)
Other costs of sales	(12,897)	(526)	(77)
Total cost of sales	(12,897)	(1,316)	(167)
Gross profit	3,753	436	11
Income from leasing of milk stations	125	-	-
Other operating costs	(3,536)	(401)	(48)
Division profit	342	35	(37)

Note: Transfers from the liquid milk division to the other two divisions are priced at cost of sales plus 25 per cent. Other operating costs include expenditure on advertising and sales promotion and training costs for dairy farmers.

Workshop 1 Session 1

Pre-workshop exercise 1 (Ethics in Business)

Ethical scenario

Lucy Lee is an ambitious business analyst in her early thirties who has been working in the finance department of the GLDC Head Office in Hong Kong for two years. She has been a Hong Kong CPA for 10 years.

Lucy's brother, Patrick, is the manager of one of GLDC's collection centres in the mainland. Patrick has test results showing low levels of melamine in milk from two of his dairy farmers. He informs the processing centre manager immediately. The processing manager tells Patrick that more tests will be carried out, and reports back stating that the test results were "inconclusive". He tells Patrick to keep on accepting the milk until he receives new instructions.

Six weeks go by.

Patrick's centre is still collecting milk from the two suppliers. Patrick has conducted further tests on the milk and is certain that low levels of melamine are being added. Patrick is convinced that there is a cover-up and decides to contact Lucy so she can bring it to the attention of head office.

Lucy receives the news from Patrick, along with the two lots of test results and back-up file notes. Lucy is very frightened to receive this news, remembering the tragic and disastrous melamine scandal of 2008. She does not want to damage her career at GLDC or open herself up to criminal prosecution. In fact, she is angry at Patrick for placing this responsibility on her.

Lucy receives the news on Thursday, and waits until the following Friday before deciding to inform the CFO, David Chan, in person. David Chan is an influential and respected accountant and business leader in Hong Kong and has been in business for 30 years. He has been a CPA for many years and has previously been on the management committee.

Lucy does not have her appointment with David until the following Tuesday. That means Lucy has waited nine business days to inform David.

David expresses shock at the news and at the processing manager's action. He tells Lucy she has done the right thing, and that both she and Patrick will be rewarded for their actions. David also says he will take immediate action and tells Lucy to call him directly about this issue. He asks for hard copies of the test results and file notes, and tells Lucy not to email him about the issue.

Five business days go by, and Lucy hears nothing. Business at GLDC continues in the normal fashion.

Patrick tells Lucy that he is still receiving contaminated milk from the two suppliers. He has not received any updates from the processing centre manager.

Lucy decides that further action must be taken. She is no longer frightened for her own position, and is angry that David has appeared to disregard her concerns. She contacts the Hong Kong Centre for Food Safety and speaks to Tammy Lui, the enforcement officer from the Hong Kong Centre for Food Safety. She tells Tammy the full story, including the involvement of David Chan. She emails and posts to Tammy the test results and file notes on the issue.

Tammy immediately verifies the test samples are indeed showing melamine contamination.

Tammy immediately calls David Chan, CFO. Tammy lets David know that they have received an anonymous tip-off on low-levels melamine contamination in GLDC milk. Verification of test results proves this to be true. She insists that Patrick's collection centre be closed and that any products this milk may have been used in are recalled immediately. Tammy launches an investigation and states that she will publish a formal report in 6 weeks. This report will be made public.

David complies with all requests. The milk is found to be present in some milk powder products, luckily a very small product division of the company. The company immediately recalls all milk powder products, including its heavily advertised baby formula product.

The share price immediately drops dramatically and consumer confidence is badly damaged, particularly because of the 2008 melamine scandal and its direct link to baby formula. GLDC begins an aggressive public relations campaign.

A couple of days after Tammy's conversation with David, Lucy is placed under performance management for unrelated reasons. Lucy tries to contact David but he is unavailable.

One week after the investigation commences, Gary Wang, a wealthy and influential Hong Kong investor with a 5% stake in GLDC, hears some potentially serious rumours about David's role in the scandal. Gary contacts Lucy, they meet, and she tells him the full story. Gary calls David to discuss the situation and to give him a chance to make a full disclosure of his role in the affair to the Board.

Concurrently, Lucy is getting frustrated at what she perceives as a lack of action from Tammy and Gary. Lucy considers quitting her position at GLDC, and then leaking the test results showing melamine contamination directly to the media.

Group discussion

In your group, you will be asked to consider this scenario from the viewpoint of **one** of the following persons:

(i) Lucy Lee, Business analyst at GLDC and the whistle blower (and Hong Kong CPA)

(ii) David Chan, CFO of GLDC (and Hong Kong CPA)

(iii) Tammy Lui, an enforcement officer from the Hong Kong Centre for Food Safety

(iv) Gary Wang, an individual shareholder of GLDC (5% stake) and influential Hong Kong-based investor

In each individual group discussion, consider the following:

(a) Note down the key considerations of your allocated person in the scenario by analysing the scenario from their perspective.

(b) With reference to the HKICPA Code of Ethics, what does the group consider to be the ethical issues faced in this scenario?

(c) Broadly following the American Accounting Association (AAA) Model, what would the group consider to be the best solution or action to be taken to address the situation? This should be assessed from the perspective of the group's allocated person and as a CPA.

Workshop 1 Session 3

Pre-workshop exercise 2 (Executive Management)

David Chan, the Chief Finance Officer of GLDC, has asked you to attend a GLDC organisational business strategy planning session. In this session you will be asked to evaluate **four possible strategic options** and decide on the **appropriate strategy** to be taken by David and other GLDC management up to the Board of Good Life Dairy Company Ltd. You understand that the following four persons of the finance team are keen on this agenda:

1 CEO – Stanley Leung

2 CFO – David Chan

3 Sales and Marketing Manager – Richard Lee

4 Operations Director – Penny Woo

They will certainly raise a lot of questions to you after your presentation to the management team. You are very pleased to take on this opportunity to impress David.

Required

(a) **Carry out a comprehensive market analysis of GLDC using Porter's five forces model, together with the sixth force – complementarity. Identify at least six points for each of six forces. Conclude whether the power of each force is high, medium or low.**

Note: It is recognised that there may be many more than six possible items for each force, and that acceptable answers may vary in content.

(b) **Complete an Ansoff product-market matrix of GLDC. In this matrix identify at least three points under each category. Use the conclusions from the market analysis you have prepared in part (a) to assist.**

Note: It is recognised that there may be many more than three possible items under each category, and that acceptable answers may vary in content.

Note: Bring your completed Porter's five forces analysis and Ansoff product-market matrix to the Workshop as a tool to assist you in evaluating the **strategic options** presented.

Workshop 1 Session 4

Pre-workshop exercise 3 (Management Reporting)

David Chan, the Chief Finance Officer of GLDC, is dissatisfied with the low profitability of the company.

Pricing policy has been different for the three divisions.

(1) For the liquid milk and yoghurt division, the pricing policy has been to set prices for sales to external customers at cost of sales plus 30 per cent. By doing this, the prices of milk drinks and yoghurt have been comparable with prices for similar products that are charged in the market by competitors.

(2) For the ice cream division, the policy has been to set prices at cost of sales plus 33.3 per cent.

(3) For the milk powder division, the policy has been to set prices at a very competitive low level.

Following the introduction of UHT milk, sales of milk powder fell substantially, and there has been over-capacity in the industry even though some loss-making producers have already ceased production. GLDC believes that more producers of milk powder will soon go out of business, partly because profitability is low but also because of customer concerns about the safety of milk powder. Following the milk scandal in China, there have been widespread rumours about contaminated milk powder products. GLDC is convinced that its own product is safe, and advertises this fact.

GLDC recently recognised that there is a potentially large market for milk powder among young mothers who are returning to work soon after having a baby and management think that sales demand will soon increase. The company has therefore deliberately set prices at a low level, with the intention of pricing smaller competitors out of the market. Management believe that if over-capacity in the industry is eliminated, sales and profits will rise to satisfactory levels.

Sales of ice cream have been a different problem. GLDC's ice cream products sell at prices that are higher than those of competitors and it has been difficult for GLDC to achieve growth in sales. The total market for ice cream in China is rising rapidly, but GLDC is losing share of the market.

David Chan, the Chief Finance Officer of GLDC, suspects that pricing policy may be a cause of the problem with unsatisfactory sales and profitability of the ice cream division. He believes that pricing should be sufficient to enable the company to achieve its target minimum ratio of profit before taxation to sales of 3 per cent and return on net assets of 12.5 per cent. (Return on net assets is measured as the ratio of profit before taxation to total assets minus total liabilities.)

Required

Using the information provided in the case study, you should:

(a) Demonstrate that for the liquid milk and yoghurt division prices are at cost of sales plus 30 per cent and for the ice cream division prices are at cost of sales plus 33.3 per cent.

(b) Suggest why GLDC may be having difficulty in achieving strong sales growth for its ice cream products.

(c) Calculate whether the company is achieving its minimum target ratios of 3 per cent for profitability and 12.5 per cent for return on net assets.

(d) If the company is failing to achieve these targets, suggest what the reasons might be.

Workshop 2 Session 6

Pre-workshop exercise 4 (Treasury Operations)

Stanley Leung and David Chan, the Chief Executive Officer and the Chief Finance Officer of GLDC, have been discussing the financial position and financial requirements of the company. The fall in profit in 2011 compared with 2010 was disappointing, but both of them are confident that the company will be successful in the future. They also agree that the company's financial position should be improved through closer attention to working capital management.

Their immediate concern is with the future financing requirements of the company. At 31 December the company had RMB 23 million in cash and cash equivalents, and most of this was held with Hong Kong banks in Hong Kong dollars. Some cash is held with a bank in the PRC, in RMB.

David Chan thinks that it may be necessary to borrow some cash to finance day-to-day operations, but is concerned about current bank lending conditions in PRC. Stanley Leung has a different concern. He believes that the company should expand its operations in 2012, possibly through the acquisition of a rival company or through global expansion. To do this, the company will need finance and he is worried about the current high costs of borrowing in Hong Kong and China compared with the low cost of borrowing in US dollars.

David Chan also reminded Stanley Leung that GLDC was due to repay a large amount of borrowings of RMB 650 million in the next 12 months, and would need money to pay for this. His immediate concern, though, is with the cash requirements of the company for its day-to-day business operations, and he thinks that an improvement in the cash operating cycle would be helpful for the company.

Borrowing conditions in PRC and Hong Kong

In the PRC, bank lending is currently restricted because of government policy. Following a rapid increase in bank lending, often for investment in real estate and often to high-risk borrowers, the government imposed restrictions on lending by banks.

When banks have been lending they have often asked for personal guarantees from the leaders of corporate borrowers, or have demanded larger amounts of land or equipment as collateral.

Interest rates on the renminbi are high due to the high rate of inflation, which is about 6% compared with the government's target of 4%.

With the reduction in lending by banks some businesses have turned to 'under-the-market' private lending to obtain finance, but interest rates on these loans can be extremely high, sometimes as much as 80%. Some borrowers have closed their businesses because they have been unable to meet the interest payments. The government has initiated measures to end this unofficial lending in the private market.

Interest rates in Hong Kong are about half the level that they are in the PRC, but even here banks are lending to borrowers with a good credit rating and are reluctant to lend to high-risk borrowers.

Hong Kong faces the problem that the Hong Kong dollar is pegged to the US dollar at an exchange rate of HKD7.80 = USD1. With low interest rates in the USA, interest rates have been lower in Hong Kong than they should be, given the strength of the economies in PRC and Hong Kong. With a strong local economy and low interest rates, there have been signs of rising inflation. Inflation in Hong Kong, which was less than 1% in 2009, reached 5.8% in September 2011.

Required

GLDC will need sufficient liquidity next year to finance its normal business operations.

(a) List the consequences for GLDC of:

(i) lending conditions in the PRC
(ii) low interest rates on the US dollar

(b) From the information available in the case study materials, comment on the cash cycle of GLDC and its implications for cash requirements.

(c) Make recommendations to the CFO about measures the company should take to deal with its requirements for liquidity.

Workshop 2 Session 7

Pre-workshop exercise 5 (Corporate Finance)

Following a visit to the USA, Stanley Leung (CEO) and Penny Woo, the Operations Director, returned from a visit to inspect a new milk processing machine that is more efficient than the current machines used by GLDC and which can also detect melamine in milk.

An investigation has been conducted into the potential benefits of acquiring these machines, and the following estimates have been produced.

(1) Each machine would cost RMB 120 million and would have an operational life of up to ten years. However, after installation they would have no significant resale value if they are taken out of operation.

(2) By speeding up processing, each new machine would reduce working capital permanently by RMB 5 million as soon as it is put into operation.

(3) One of the benefits of the new machines is that each would result in a reduction in the amount of milk thrown away because it is suspected of containing melamine or other impure ingredients. It is estimated that the annual savings would be RMB 10 million after taxation at 2011 prices for each machine.

(4) A second benefit is less certain, but the sales and marketing director has estimated that the improvement in processing capability and the purity of milk that would be achieved by using this machine could increase annual sales. As a result of this, the estimated annual increase in profit after tax each year would be RMB15 million at 2011 prices. However there is a considerable amount of uncertainty about this estimate.

(5) The machines would be subject to allowances for tax purposes, and the allowance to set against taxable profits for each machine, under current regulations, would be RMB 30 million each year for four years. The rate of taxation on profits in PRC is 25%. (You should assume that tax benefits are obtained in the same years that the tax allowance is claimed.)

(6) It is board policy at GLDC that major new investments must pay back on a discounted basis within five years; otherwise the investment should not be undertaken.

(7) There is some uncertainty about the rate of inflation, but the board has decided that this is likely to be 4% each year for the next five years or longer.

(8) To replace current machinery completely, GLDC would need to purchase 15 of these machines.

(9) The company has estimated that its cost of capital is 9%, but with the rise in the rate of inflation recently, the board suspects that its cost of capital may now be as high as 12%.

You have been asked to prepare an analysis for David Chan, the Chief Finance Officer, about whether GLDC should invest in the new machines. You have also been asked to give advice about the screening of investments and post-completion audits.

Required

(a) **David Chan believes that investments should not be considered unless they pass a screening test. You are required to suggest what matters should be considered in a screening test, and suggest whether the new milk processing machines appear to meet the requirements to pass the test.**

(b) **Calculate the net present value of an investment in a new machine, assuming that the project has a life of just five years and the machine has no market value at the end of that time. Your analysis should explain your treatment of inflation and your choice of cost of capital for the analysis.**

(c) **Assess the uncertainty about the estimated increase in profit from additional sales, using sensitivity analysis.**

(d) **Suggest to David Chan, with your reasons, the recommendation that he should make to the board of GLDC about investing in these new machines.**

(e) **Explain what the purpose of a post-completion audit would be if a decision is taken to go ahead with an investment in the machines.**

Discount factors:

Year	Discount factor 9%	Discount factor 12%
1	0.917	0.893
2	0.842	0.797
3	0.772	0.712
4	0.708	0.636
5	0.650	0.567