#### MINERAL ECONOMICS AND BUSINESS

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#### IIT Kharagpur

#### Week 10

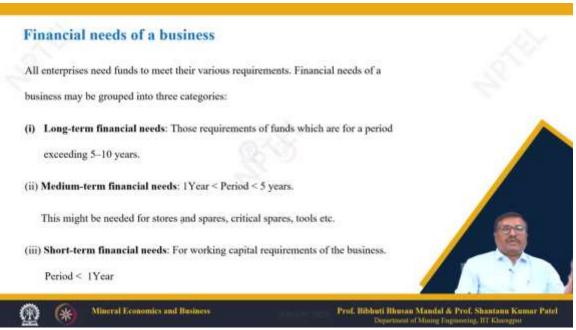
# **Lecture 48 : Mining and Minerals – other sources of finance**

Hello, welcome everybody to this class. Today, we will be discussing certain other sources of finance, or rather non-conventional or unconventional sources of finance. Previously, we have discussed several ways and means of financing the mining business. Those are well-known, like shares, debentures, and other similar things such as preference share capitals and bonds. But today, we will discuss some unconventional, not very usual sources. So, we have a list here, like bridge finance, as you can see in the concepts covered, and also seed capital, which is a very popular term nowadays. And internal cash accruals, capital incentives, trade credits, and then your accrued expenses or deferred income. And commercial papers. I am not saying that this is absolutely exhaustive in nature; there are several others, but I have selected these things which are rather more important to understand.



There are a few more, but I have not added them here. We will start with the financial needs for any business, like mining, which we have discussed when we started this discussion on the financial needs of the mining business, sources of finance, and all these things. In between, we have tried to understand many other topics. We are going back again to the financial needs because, towards the end, we are trying to understand more about the mining business's finance, its implications, and what are the problems in the business risk, all these things. Any enterprise, like mining, will require either long-term, medium-term, or short-term finance, or rather the financial needs can be broadly divided into three categories.

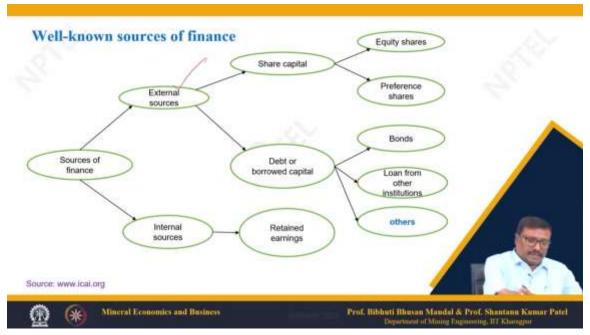
The first one is the long-term, which is between 5 to 10 years. Now, medium-term means it is less than 5 years but more than 1 year. So, the long-term needs will be required for, for example, capital investment, infrastructure development, equipment purchase, and all those things. And for short-term, you may need some critical spares, stores and spares, tools, and this kind of thing, which does not exceed 5 years in between. But there can also be a requirement for working capital, which can be critical in a situation when the company does not have the working capital to continue for some reason or the other, like the sales proceeds are due, and they are not getting the money.



So, they have cash grants. Maybe something related to the market slowdown is causing this problem. So, we need some working capital for the time being to tide over the crisis,

and we can go for short-term support from the market or financial institutions. What are the well-known sources of finance? Like we know, external sources and internal sources can be divided into two parts.

One is the external source, and the other is the internal source. For external sources, we broadly divide them into share capital, debt capital, or debentures—borrowed capital, rather. And in share capital, we have equity shares and preference shares. In debt, we have bonds. We can take loans from other institutions and other sources offering similar kinds of loans.



And now, internal sources include retained earnings. That means the earnings we have are retained and reinvested in the company itself so that financial needs can be met. So, this falls under internal sources. We will come to those sources of finance which we have not discussed in the previous slide. That means these are unconventional, slightly lesser-known, but they are still very much present in the market.

Like the British finance is one of them. These are loans taken by a company, normally from the commercial banks for a short period. because they have applied for say for a long term loan term loan rather, but the processing is due. So, that that the disbursement is delayed, but the company wants to start the company or start the operation which is held up. So, they can ask for a bridge finance that means, the the present situation and the

time when you get a long term good amount of money in between to bridge the gap we have the short term nature loan from the bank.

This is an important step towards the ultimate long term loan. For any financial institution it and and especially when for example, big mining companies they will ask for the big amount. So, it will take much time to disburse the loan. So, what what can be done that in the beginning we can have a small amount which will be settled later on. So, once the loans are approved that is why it is said by the term lending ah institutions.

## **Bridge Finance**

- Bridge finance are loans taken by a company normally from commercial banks for a short period because of pending disbursement of loans sanctioned by financial institutions.
- Though it is of short-term nature, it is an important step in the facilitation of long-term loans.
- Normally, it takes time for financial institutions to disburse loans to companies.
   However, once the loans are approved by the term lending institutions, companies, in order not to lose further time in starting their projects, arrange short-term loans from commercial banks.







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So, in order not to lose further time in starting our projects, we arrange short term loans and these short term loans are called the breeze finance by the by the commercial banks. They are repaid or adjusted because we are going to get the actual amount later on which is the the amount that we have asked for from the from the financial institutions or say here the commercial banks. So, once we get that amount then we can repay from whatever we get or during disbursement the bank can adjust the advance amount and give us the rest of the money. These bridge loans are normally secured by hypothecating movable assets or say personal guarantees. These are mortgage kind of thing and then demand promissory notes.

So, generally this rate of interest is higher compared to the actual term loan. For example, we will give the practical examples from the market. For example, in 2018 Vedanta resources famous mining company. So, they took a bridge loan for acquisition of the

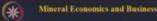
electro steel in 2018 and they acquired electro steels limited through a bridge loan of about 3500 crores.

Or for another example, another giant, mining giant also, the Adani Enterprises, they acquired the Carmichael Coal Mine project in Australia. And they use the bridge financing to cover initial cost of the Carmichael coal mining, coal mining, mining project in Australia. So, these are two examples of taking the first bridge finance and to acquire or say acquisition of these things. And then they can proceed towards the project, start the project and by the time they get the actual amount, the term loan. So having said that about the bridge finance we can take another important issue that is the seed capital assistance.

## Bridge Finance - contd.

- The bridge loans are repaid adjusted out of the term loans as and when disbursed by the concerned institutions.
- Bridge loans are normally secured by hypothecating movable assets, personal guarantees, and demand promissory notes. Generally, the rate of interest on bridge finance is higher as compared with that on term loans.
- · Examples:
  - Vedanta Resources Bridge Loan for Electro Steel Acquisition (2018)
     Vedanta acquired Electro Steels Ltd. through a bridge loan of ₹3,500 crores.
  - Adani Enterprises acquired Carmichael Coal Mine Project (in Australia)
     Adani used bridge financing to cover initial costs of the Carmichael coal mine in Australia.





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So this is basically to start by name itself we can understand that this is allowing us to start the business. Like this is this scheme is this scheme the the seed capital assistance scheme is designed by the IDBI Industrial Development Bank of India for professionally or technically qualified entrepreneurs. That means people who are professionally well known they are technically qualified and they they have the relevant experience needed to run the business or start the business. They lack adequate financial resources to start on the business. So what happens if we give the seed capital, then they can start the work.

# Seed Capital Assistance:

- The Seed Capital Assistance scheme is designed by IDBI for professionally or technically qualified entrepreneurs and/or persons possessing relevant experience, skills, and entrepreneurial traits but lack adequate financial resources.
- The Seed Capital Assistance is interest-free but carries a service charge of one percent per annum for the first five years and at an increasing rate thereafter.







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So this is to help industrialization or the growth of industry. So that's why it is interest-free. But it carries a small amount of service charge. For example, 1% per annum for the first five years, and at an increasing rate thereafter at as can be decided by the bank.

### Seed Capital Assistance (cont.):

- However, IDBI will have the option to charge interest at such a rate as may be determined by IDBI on the loan if the financial position and profitability of the company so permit during the currency of the loan.
- The repayment schedule is fixed depending upon the repaying capacity of the unit with an initial moratorium of up to five years.







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But of course, the IDBI who is giving you the seed capital for starting the war will have the option to charge interest at such a rate as may be determined by IDBI on the loan depending on the financial position and profitability of the company later on so that they can recover ah ah the loan but that depends of course on the financial position and the profitability of the business and the repayment schedule is fixed depending upon the repaying capacity that is when the company will be able to repay. So, being taking a practical and positive outlook towards the growth of industry this sheet capital is given. So, we can also think of that why to charge interest or try to recover the loan in the first few years when the company is trying to start and grow.

So, let us help them. So, we can So, so it can have an initial moratorium of up to 5 years when nothing will be charged. So, the repayment starts after 5 years that can be decided to help to grow to start and then grow to ultimately reach a capacity when the financial position is such that they can repay the loan. We will give a little odd example that the seed capitals are also given in any other, not in core mining only, not only the core sector, but in the R&D also.



For example, this is from the Ministry of Mines website we have taken, and they are offering seed capital in the R&D sector, as you can see here—the science and technology base for mining research and development. So, here the ministry has identified several—only a few are shown on this page—there is a long list. For example, the research and development component, we have to show the information, education, and communication component. Then, the promotion of research and innovation in startups and MSMEs in mining, mineral processing, metallurgy, and recycling sectors. So, the key

components of this science and technology program of the Ministry of Mines are listed here.

So, we are showing, for example, three. So, it is not only directly mining business, or it can be related to the R&D or the information, education, and communication component. So, these are—there are many areas where you can have a proof of concept, and you can ask for seed capital, and the government may help you start it, prove it can be scaled up further in the future to grow, and then we can establish a good industry. The ministry helps. So, the ministry has published this.

You can see this on the website of the Ministry of Mines, mines.nic.in. Now, we are coming to another form of unconventional source of finance, like internal cash accruals. Internal cash accruals are related to existing profit-making companies. So, they invest a part of their accumulated reserves or cash profits. That is, we have accumulated reserves.

### Internal Cash Accruals

- Existing profit-making companies which undertake an expansion/diversification program
  may be permitted to invest a part of their accumulated reserves or cash profits for the creation
  of capital assets.
- In such cases, past performance of the company permits the capital expenditure from within the company by way of disinvestment of working/invested funds.
- In other words, the surplus generated from operations, after meeting all the contractual, statutory, and working requirements of funds, is available for further capital expenditure.







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We can loosely call it a corpus that we have already developed. And this is we can spend this money instead of keeping it as it is we can convert this for to capital assets. So, we can reinvest this money in the in the company itself. So, in this cases the past performance of the company permits the capital expenditure from within the company by way of disinvestment of working or the invested funds. So, the surplus generated from the operations that we have after meeting all other contractual or say statutory payments,

working requirement of the fund, if the fund is available, if you have a reserve, accumulated reserve, so you can use for further capital expenditure.

So, this is internal cash accruals by the company. We are using it in the company itself. Now, so we also have a similar idea of retained earnings which we studied in the ah major source of financing before. Now, we are talking about the internal cash accrual. So, there could be small little difference.

Aspect	Internal Cash Accruals	Retained Earnings	10.0
Definition	Cash generated from business operations before financial obligations.	Profits retained after distributing dividends to shareholders.	4.
Accounting Statement	Found in the <b>cash flow statement</b> under operating activities.	Found in the balance sheet under shareholders' equity.	
Calculation	Net Profit + Depreciation + Other Non- Cash Expenses.	Cumulative Net Profits - Dividends Paid.	
Purpose	Ensures liquidity for operations, debt servicing, and working capital.	Used for reinvestment, expansion, or future reserves.	
Impact of Dividends	Not affected by dividend payments.	Reduced when dividends are distributed to shareholders.	

So, for understanding this difference I have made this table. So, the internal cash accruals and the retained earnings what are the basic differences or similarities rather. So, internal cash is generated from business operations before financial obligations. But in retained earnings, the profits retained after distributing the dividends for the shareholders. And in accounting statement, this is found in the cash flow statement.

under operating activities, but this is found in the balance sheet under shareholders equity it is treated as equity. For calculation purpose, this is net profit plus depreciation plus other non-cash expenses. Whereas, in case of return earnings, it is cumulative net profits minus dividends paid. That will be taken as the real return earnings, not the entire amount as we have shown in the left side. And what is the purpose of this internal cash accruals?

It can ensure liquidity for operation, debt servicing or provide working capital. Whereas, in this case it can be completely reinvestment in proper sense for the purpose of

expansion or say future results. What is the impact of dividends? So, this is not affected by the dividend payments as you can see from here, but this is reduced when the dividends are distributed to shareholders. So, the effective return earnings will be less because the total earning minus the dividends which is obligatory that you have to pay, you must pay and then only you find out the actual amount.

So, this will be reduced when the dividends are paid. Now we are coming to a very specific item called the capital incentives. You must have heard about the government's initiative towards the development of backward area and many mining companies are there which are in backward area. So, these are backward area development incentives mostly available and they determine the location of a new industrial unit. And based on the the ah the location where it is, how backward it is.

So, this is how we can determine based on that and what facilities we are going to provide to the surrounding community and society. So, the incentives usually consist of a lump sum subsidy and exemption from deferment of certain taxes. That means we are giving a tax holiday or tax subsidy in the beginning, or we give a lump sum subsidy in the beginning. And, the government will exempt the company which is trying to develop a business, establish a business in a backward area, by deferring certain taxes. For example, in the beginning, you do not pay electricity charges or water charges, or you get an income tax holiday for a few years that we can give. So, that gives an incentive.

So, you are not heavily burdened by these taxes and other things. So, you enjoy certain subsidies, and you are exempted from certain taxes. So, you are encouraged to establish the industry in backward areas. So, this in short can be called capital incentive. Now, how much are you going to get?

So, this is determined by the degree of backwardness of the location. So, the lump sum subsidy that you are getting depends on the degree of backwardness, and this is sanctioned by the implementing agency as a percentage of the fixed capital investment. That is, how much you are promising—for example, 5000 crore—we are going to invest there. So, a percentage of that will be taken as a lump sum subsidy in the beginning to start mobilizing the work with an incentive. But that has a limit; I mean, this cannot go infinitely high. So, a percentage of the fixed capital up to this limit.

So, that will be declared. Now, this capital incentives they form a part of the long term means for the project. They start with this and then go on the establishing the industry. But the remember that the viability of the project should be should not be solely

## Capital Incentives

- The backward area development incentives available often determine the location of a new industrial unit. These incentives usually consist of a lump sum subsidy and exemption from or deferment of certain taxes.
- · The quantum of incentives is determined by the degree of backwardness of the location.
- The special capital incentive in the form of a lump sum subsidy is a quantum sanctioned by the implementing agency as a percentage of the fixed capital investment, subject to an overall ceiling.







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dependent on the quantum and the availability of this incentive. That means the company should have enough strength to start this process and this is another, this is nothing but an encouragement, an incentive given to start. This is not a startup capital, not at all. This is an incentive provided to run, establish the business in backward areas. This is in no way a seed capital. So, this institutions or financial institutions rather while appraising these projects, they will assess the viability of the project as it is.

#### Capital Incentives (cont.)

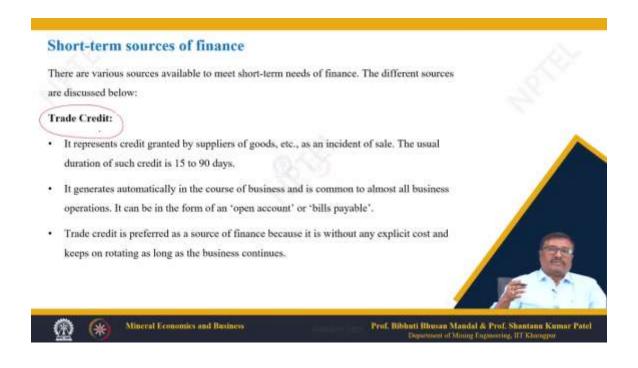
- · This amount forms a part of the long-term means of finance for the project.
- However, the viability of the project must not be dependent on the quantum and availability
  of incentives.
- Institutions, while appraising the project, assess the viability of the project per se, without
  considering the impact of incentives on the cash flows and profitability of the project.
- Special capital incentives are sanctioned and released to the units only after they have complied with the requirements of the relevant scheme.
- The requirements may be classified into initial effective steps and final effective steps.







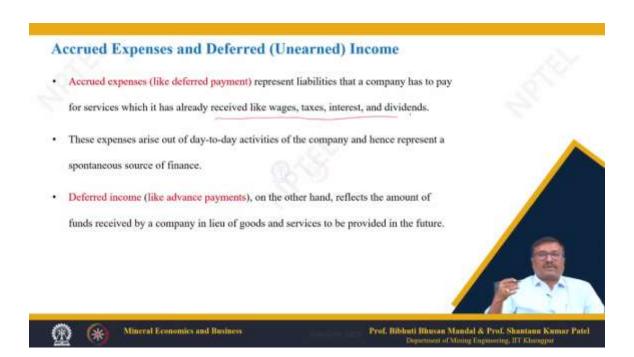
without considering the impact of this incentive on the cash flows and profitability of the project. That means, you have declared that we are going to spend or say invest 10,000 crores, we are taking that as a starting point, we are calculating a percentage of that, we are using the ceiling at the which may be a part of the policy. And then we are giving a subsidy either in as a lump sum or in the form of the tax holidays in the beginning. This special capital incentives are sanctioned and released to those units after they have complied with the That means, we have to we have a scheme for example, we have a scheme for this capital incentive, we need to submit the papers and all other all other you have to qualify for that then the capital incentive will be sanctioned.



So, in the beginning, there may be a step-by-step payment, not exactly at the same time. It could start with some small amount and then give you the total lump sum amount or, as I said, in the form of certain exemptions from taxes. Now, we are going to talk about trade credit. This is another form of finance. So, how is it done? This trade credit is granted by the supplier of goods, etc., as an incident of sale. The usual duration of such credit is about 15 to 90 days. I will try to explain this. This generates automatically in the course of business and is common to almost all businesses.

So, it can be in the form of an open account or bills payable. So, we are not paying. We have taken the goods, material, or services from outside, and we are not paying, say, from

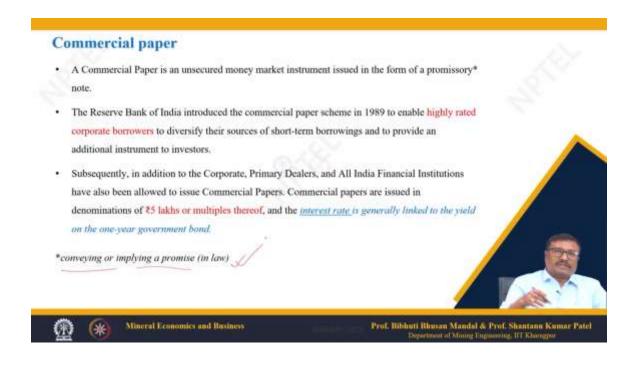
15 to, for example, 90 days. So, payment is held up. So, this is basically giving us an opportunity to use that unpaid amount as one of our investments or to utilize it in other parts of our business. So, this trade credit is preferred as a source of finance because it is without any explicit cost. We are not incurring any additional cost of capital. And this keeps on rotating. So, later on, we pay, and again we get a service, and again, for some reason, we can defer if required if we need the cash. So, we can defer. It goes on.



So, always depending on the need and mutual understanding, we can maintain the trade credit. This gives you the flexibility of operation. When you need a certain amount of money, what happens is that you defer the payment to the suppliers and utilize the cash for the time being. Then, in a few days—say between 15 to 90 days, or 3 months—you can pay that amount. Now, the accrued expenses, like the deferred payment I mentioned, represent liabilities that a company has to pay ultimately. For the services which it has already received—like wages, taxes, interest, and dividends—this is similar to trade credit. That means we have to pay wages, taxes, interest, or dividends, but we are deferring these payments.

So, this is actually a liability, but we are just utilizing those funds by deferring the expenses. So, these expenses arise out of day-to-day activities of the company and represent a spontaneous source of finance. It's not institutional; it is within and during the

process that we have these funds. So, we delay it and then we pay it. In between, we utilize the funds.

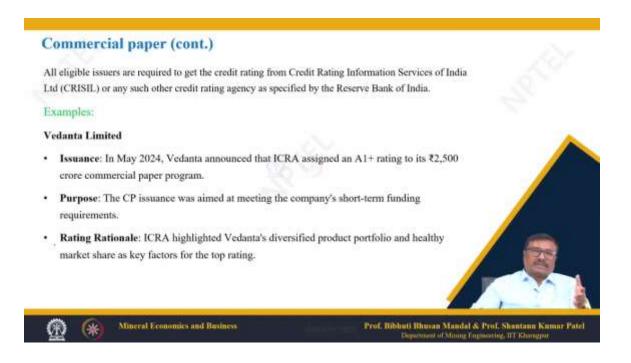


But the moment we start having the actual sources of finance to support it, then we can start disbursing these funds. Similarly, the deferred income—like any advance payment— On the other hand, reflects the amount of funds received by a company in lieu of goods and services. For example, somebody pays in advance and books some metal, concentrate, or anything that you have to supply. So, when you get these funds in advance and your actual supply is deferred.

So, you are having an income and advance payment which can be utilized for day to day work. So, this is in the form of deferred income. Both these things is accrued expenses and the deferred income are sources of finance, short term finance, internal finance that is a part of the business. Now, we come to the commercial paper. In the commercial paper is an very interesting thing is an unsecured money marketing instrument this is in the form of a promissory.

Promissory means it conveys or implies the kind of promise in legal terms. So, this the Reserve Bank of India RBI introduced this commercial paper scheme in 1989 to enable highly rated corporate borrowers. The companies which are well known, they want

money for some purpose for their business. So, we have to help them by these things, this unconventional source rather. So, to diversify their sources of short term borrowings and to provide an additional instrument to the investors.



Now, the subsequently in addition to corporate, the prime dealers, primary dealers and all India financial institutions. They are they are also the primary dealers or all India financial institutions, they also have been allowed to issue the commercial papers. So, that means, they are investing into some other company in the form of commercial papers. The commercial papers are issued in say in denomination of 5 lakhs and multiple of 5 lakhs, 5 lakh, 10 lakh, 15 lakhs like that. And the interest that they enjoy, the people who are supplying or that the company we have to pay if I am taking a loan, then the interest rate is generally linked to the yield on the one year government bonds.

we try to equate that. So, you can have a reference that if I want to take a commercial paper then how much interest I have to pay that is linked to the one year government bond. Let us see some one or few examples. Before saying that we must say that how do you get this fund because in the beginning I have already said in this commercial paper that the and well established corporates only those companies get it. So that means their credit rating is very high like the rating by the Chrysler or any such credit rating agency by approved by the specified by the Reserve Bank of India in our country.

The credit rating they are believable so you can give the commercial papers and then the company can get this money easily by a very easy method of financing rather So, I will give you some examples by which you can understand these things. For example, Vedanta Limited. The issue was in May 2024, last year only. Vedanta announced that the ICRA, the credit rating agency, they assigned a 1 plus rating to its 2500 crore commercial paper program.

That means, if Vedanta Limited has a high credit rating and then only they can issue. The purpose is that the company wanted a short term funding requirement. So, the commercial paper issue was aimed at meeting the company's short term funding requirement. So, they will issue the commercial paper and the interest as I said will be linked to the government one year bond and people will purchase because of the because of the credit rating. Now the rating rationale, the ICRA highlighted that Vedanta's diversified product portfolio, they are not only into one thing, they have mining, they have smelter, they have the steel, there are lot of business in the large portfolio and if they have a healthy market share, these are key factors for their top rating.



So, they can issue commercial papers and then get funds from the market. We have discussed the different forms of unconventional sources of finance. And if you want to read more, then you can go through different newspapers or business magazines. From there, you can also get the information. You can visit the websites of the Ministry of

Mines, Coal, or some reports. Good reading materials you can still go for are ICI or ORG. And try to go through the newspapers and television. So, from there, you will also understand the topics that I have discussed and how diverse the sources of finance are.

From conventional sources, which include debt, equity, bonds, and also seed capital. And we have other short-term finances, as I have said, even commercial papers that I have discussed. So, with this, we come to the end of the discussion on the non-conventional sources of finance. And in the next lecture, we will take up the risk, the business risk associated with the mining business. Thank you very much.