International Finance

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Lecture - 22
Operating Exposure Management

Today's session that is number 22 we will be discussing about operating exposure management. In session 21, we discussed the definition and issue of operating, operating exposure. We also tried to quantify the operating exposure through different examples. Today's session we will be discussing once the operating exposure quantify how you can manage the operating exposure through different process of management starting from qualitative management principle to quantification quantity measurement and also through different kind of derivative product which are available in the market, whether the derivative product can help us in managing the operating exposure.

Once, I mention the operating exposure we should understand that these operating exposures are long term in nature. These exposure effect the value of the company and also will try to address the issue of competitive condition of the company. When operating exposure effect the long term value of the company and try to hamper the competitiveness of the company, it cannot be made, cannot be managed through derivative product because derivative products are short term in nature, long term derivative product very difficult to get from the market in at present world worldwide the derivative products are short term in nature.

So, the management of operating exposure need to, can be done only through strategic label, through negotiation, through resourcing of raw materials, through by reducing the overall cost of the company, by improving the efficiency of the company and also through multiple selling unit by diversification of finance, financing pattern of the company and diversification of the nature of the business of the company.

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Operating Exposure Management

- Operating exposure measures the change in the present value of the company due to change in future cash flows caused by any unexpected change in the foreign exchange rate.
- Appreciation of domestic currency can be managed by
  - Negotiating higher price for the export
  - Reducing the domestic labour cost
  - Improving the manufacturing and delivery supply chains
  - Sourcing low cost inputs from other countries
  - Producing at optimum level and exporting it to other countries against which domestic currency has not appreciate.

Let us discuss the different ways of management of operating exposure. One such way we have discussed in our last example that is in session 21 how the world mart and the domestic Indian exporter they arrive when they, when the domestic Indian exporter export pen drive and with the appreciation of domestic currency, how it effect the volume of sales, how it effect its profit position and that time we came to, we understand, we understood that appreciation of domestic currency can be managed or can be managed in not in, not in a overall way, can be managed certain extent by negotiating with for higher price with the exporter with the importer, reducing the domestic labour cost, improving the manufacturing and delivery supply chain and sourcing the low cost import from other country, producing at optimum level of operation and exporting not only one currency area, but in multiple currency area, particularly in currency area where domestic currency depreciate or not appreciates significantly.

These are some way we can address the issue of operating exposure, but management of operating exposure depends upon a pragmatic analysis of why operating exposure arrives and secondly if it arrives how, what do we can manage through instrument of marketing, through instrument of strategy, strategic strategy value, value decision process and also through using some kind of financial product.

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Let us discuss what are the process available to us, what are the methods available to us for management of operating exposure. Operating exposure as I mentioned earlier it effect the operational position, operational forces of the the company. So, we have to redesign the operational process, operational systems of the company. So, the management of operating exposure, we can do through making currency cash flow that is one aspect, risk sharing agreement with the exporter or importer, going for back to back or parallel loans process, re-invoicing that centre and through currency swap process. There are other way of doing also that is called diversification of operation, operating system and also diversification of financial decision. So, one by one today we will be discuss about these operating exposure.

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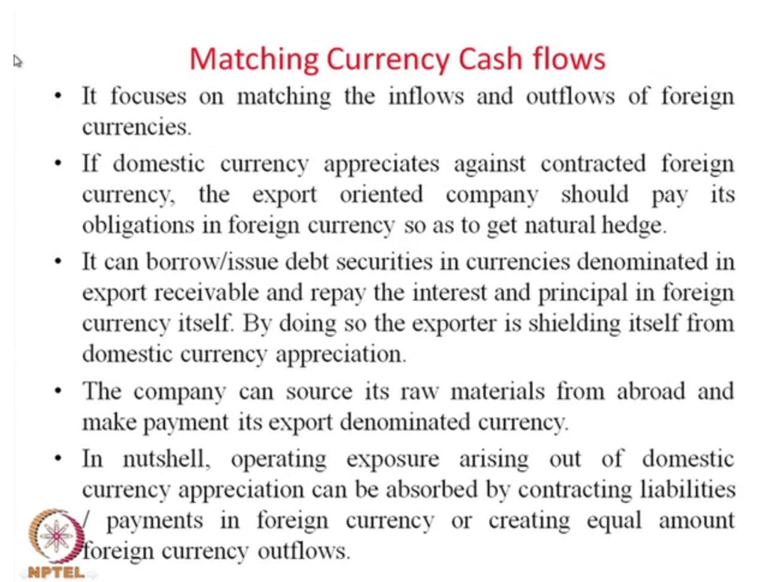

First way making currency cash flow, making currency cash flow is nothing but a type of what is called asset liability management. When a particular company exporting or importing, it either receiving or paying in foreign currency, if it is a exporter a receiving foreign currency and is a importer he is paying foreign currency. This outflow inflow of foreign currency create operating exposure because this outflow inflow were long term in natures and in long term as I mentioned earlier very difficult to predict the exchange rate, exchange rate environment uncertain. We cannot predict the exchange rate and because of that the inflows and outflow of foreign currency create operating exposure.

Suppose, a exporter is there, he is he is exporting and getting foreign currency, so, if you, if we try to find some way the exporter can get some kind equivalent amount of import in that particular currency then this inflow and outflow will be match and this matching of foreign cash currency cash flow may reduce the operating exposure. So, what does it mean the making of cash flow is here, it focuses on matching the inflows and outflow of foreign currency. If domestic currency appreciates against contracted foreign currency the export oriented company should pay its obligation in foreign currency, so, as to get natural hedge. The exporter here, when the exporter understand there is a appreciation of domestic currency the exporter can find a importer and try to match the currency, currency inflow and outflow in such a way it get a natural hedge.

So, the domestic currency appreciate, if the domestic currency appreciate against the contracted foreign currency, the export oriented company should charge, should pay its obligation in foreign currency in equivalent amount. It means that when he is receiving foreign currency and he is paying foreign currency both export import side match and there will not be any currency, currency, there may not be any currency surplus or currency deficit for him and in this way the natural, natural hedging can be achieved. It can borrow or issue debt security, in currency denominated in export receivable and repay interest and principal foreign, principal in foreign currency itself.

The exporter can also suppose he is getting receivables in foreign currency, it can create a foreign currency debt so that the domestic financing pattern can be foreign currency oriented, when he receive foreign currency in the form of export, he is in a at the same time he should, he should the company should be in a position to pay the foreign currency in the form of debt repayment, debt repayment and this inflow outflow will match and natural hedge can be achieved.

In this position the exporter here receiving foreign currency, at that same time exporter for its financing of its company, he is creating foreign currency debt. So, debt repayment and export receivable together match and there will not be any foreign operating exposure for the company. The company can also source its raw material from abroad and make payment its export denominated currency. Suppose, the (( )), the raw material the foreign the export oriented company receiving foreign currency, it and there is a operating exposure because of this the export oriented company can source its raw material from abroad or pay the raw material price in foreign currency and this may reduce the operating exposure.

But what we are doing here? We are discussing about how we can measure how we can reduce the operating exposure because of long term financing pattern, long term receivable pattern are involved in foreign currency. Then long term financing and long term receivables are in foreign currency, if you are in a position to match the long term financing position and long term receivable position, then there may not be any foreign currency exposure and foreign currency exposure is not there, the foreign currency operating exposure also will not be there.

In nutshell operating exposure arising out of domestic currency appreciation, it can be measured can be absorbed by contracting liability of payments in foreign currency or creating equal amount of foreign currency outflow. That means what we are doing? We are when we are receiving when the export oriented company receiving foreign currency at the same time the export oriented company creating a payment, creating a debt payment for the company in foreign currency itself.

So, receivables and payments together net it out that exposure side and foreign currency operating exposure reduce over the period and in in in matching foreign currency assets and liability what we are doing? We are absorbing some extent the operating exposure and at the same time significant amount of operating exposure are reducing because of payments and receivables denominated in same currency are netting out.

Thus operating exposure can be managed by creating equal amount of or foreign currency debt or foreign currency payment, if it is export oriented company. At the same time if it is a import oriented company the company can creates export in such a way that equal amount of receivables are there for payment of import and this way the matching of cash inflow and cash outflow netted out the operating exposure. In matching of foreign currency outflow and inflow can be done by searching partner, sourcing the raw material or sourcing the payment receivable in such a way that there may not be any foreign currency gap in payments or received and this way we can reduce the operating exposure.

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Risk Sharing Agreement

- Risk sharing is a contractual arrangement between the exporter and importer to "share" currency risk.
- In a risk sharing agreement, both buyers and sellers jointly work so that benefits/loss of change in foreign currency rate is shared by both parties.
- Both parties generally allow the normal (generally 5%) depreciation / appreciation of contracted currency and beyond the normal level any change share by both parties.
- The risk of appreciation of domestic currency is shared by the foreign counter party by increasing price partly and the domestic party absorb the rest by increasing efficiency and reducing operational cost.
- Risk-sharing contract generally have in-built flexibility so that single party should not get undue advantage always.

Other way of doing is a risk sharing process. Well as we know that operating exposure arises because there is a exporter and there is a importer. A exporter, for exporter if currency domestic currency appreciate it create a operating exposure, for the importer if if the foreign currency, if the foreign currency appreciate it create a risk for the importer. In other word for exporter a domestic currency appreciation create a operating exposure, for the importer domestic currency depreciation create a operating exposure. So, whenever there is a importer there is a exporter. Whenever there is a exporter there is a importer. That means buying and selling together going on in foreign currency in transaction process and if the buyers and sellers together share the risk of the foreign currency exposure then the operating exposure can be absorbed by the two party significantly.

So, in the risk sharing agreement, in the risk sharing agreement the contractual arrangement between, there is a contractual arrangement between exporter and importer to share the foreign currency risk, both party knows that both party knows that there will be a foreign currency appreciation or depreciation will be there and this appreciation depreciation are beyond the control of the individual company. Let us share the risk of currency and this way the risk sharing can risk sharing can reduce the operating exposure significantly. In a risk sharing agreement both buyers and seller jointly work, so, that the benefit or any kind of loss of exchange rate fluctuation, shared by both party. Both party generally allow the natural or normal depreciation appreciation of currency and if the

currency appreciate or depreciate beyond the natural or beyond the normal process they try to share the risk of foreign currency.

In the agreement itself they mention that if the foreign currency depreciate or appreciate beyond certain level or certain percentage say 10 may be around more than 5 percent then the beyond the 5 percent whatever the risk will be there that risk will be absorbed by two party. In the risk of appreciation of domestic currency shared by the foreign counter party by increasing the price of, price partly and the domestic party absorb the rest amount of increasing, rest amount by increasing efficiency in reducing operational cost.

So, if the suppose there is up to 5 percent they allow the foreign currency appreciation depreciation. If it is more than 5 percent suppose then both party try to absorb this in a two different process, if it is a exporter the exporter try to absorb the risk by reducing the overall cost of production by improving the supply chain process, by improving the efficiency of the its own company and the importer try to, importer try to, importer company try to absorb this by increasing the price of the import partly and in this process both the company address the operational risk by risk sharing basis.

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Risk Sharing Agreement

- Risk sharing agreement can happen only when buyer and seller enter into long term contract.
- The exporters manufacturer certain products keeping the importer's requirements.
- The importer actively participates in exporter's design, production and manufacturing process so that exporter is able to supply products at a cheaper rate.
- The contract is long-term in nature with built-in-flexibility for re-negotiation.
- This type of risk-sharing is generally found big manufacturing companies where the companies generally outsource the spare parts and other non-essential components to low-cost, cheap labour countries.

If you, the risk sharing if you go through the risk sharing process you will find the risk sharing now a days the common phenomenon in actual market. Risk sharing generally both parties do mention in their contract document and that a contract document itself inbuilt flexibility there so that in single party should not get undue advantage or

disadvantage because of currency fluctuation. And this kind of risk sharing agreement takes place when there is a long term arrangements are there between the two party and two party depends are interdependent because one party use the raw materials of another party and another party use the foreign currency of, foreign currency for its own operational system.

So, in the risk sharing is beneficial for two party and they try to address the foreign currency exposure or operating exposure by having a contracted document. The contract document generally have a inbuilt flexibility. The inbuilt flexibility allows the two party to share the risk or share the benefit together. If you, if you find the risk sharing agreement can happen only when buyers and sellers enter into a long term contract because 1 2 day, 1 month 2 month export import or short term arrangement may not may not be in a position to go for a risk sharing, risk sharing agreement because of this reason whenever there is a long term arrangement is there between two party they share their risk in their contract document itself.

The exporter manufacture certain product keeping the importer's requirement, at the same time importer actively participated in exporter design, production process, manufacturing process, so, that exporter is able to supply a product at a cheaper rate. Both importer and exporter together they decide their operational activity, they decide the pricing process, they share the knowledge among, among themselves, they participate in their own, both company manufacturing process and they know that if the overall price reduced, they can absorb the operating exposure and in this way the document of risk sharing prepared by the two party and try to address the issue of operating exposure.

If you see this operating exposure through risk sharing is a negotiation, negotiation document. The negotiation document generally available for both party and they try to renegotiate whenever they have, they are advantage disadvantage arises. So, the negotiating document itself is a, what is called inbuilt flexibilities are there for addressing the issue of, issue of operating exposure.

This type of risk sharing, risk sharing generally found in case of big manufacturing company where the company generally outsource the spare parts or other non-essential component of low cost, component to low cost cheap labour country. If you see at

present worldwide the outsourcing issues is there, worldwide the non-essential or less technology oriented process are being outsourced from developed country to developing country and both the, both economy, both the country company in developed and developing country they depends upon each other in outsourcing process and they share the risk of any kind of appreciation and depreciation of foreign currency and the outsourcing or long term arrangement between two company is a, is, provide a avenue for risk sharing and this risk sharing process reduce the overall cost of cost of production and at the same time reduce the operating exposure.

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Back-to-Back or Parallel Loans

- In back-to-back or parallel loan, two companies in different countries borrow offsetting amounts from one another in each other's currency.
- For example, an Indian company imports high-end perfumes and cosmetic products from USA and sells in India. It operates a branch office in USA to procure cosmetic products and export it to India. Let us name this company as Indian importer. The Indian importer's major expenses are in USD while earnings are in Indian Rupees.
- The Indian exporter gives loan to the branch office of Indian importer. The Indian importer gives an equivalent amount of loan in INR to Indian exporter.
- If INR appreciate then the Indian importer need to repay less amount in US$ while the Indian exporter gets same less amount in rupee and equalise the payment streams.

There are other way of other way of managing foreign currency operating exposure also. The back to back or parallel loan one such kind of instrument or process which allow reducing, allowed for reducing the operating exposure. In back to back or parallel loan two company in different country borrow offsetting amount from one another in each other currency. Here, two parties are involved, the two party borrow each other domestic currency and in such a way there will be any depreciation or appreciations are there it will let it out, in the payment or receivable itself.

For example an Indian company imports high end perfumes or and cosmetic products from US and sells in and sells in India. It operates a branch office in USA to procure cosmetic product and they export it to India. Let us name this company as Indian importer the Indian importers measure expenses are in US dollar while earnings are in

Indian rupee. The Indian exporter gives loan to branch office of Indian importer, the Indian importer gives an equivalent amount of loan in INR or Indian rupee to Indian exporter. If INR appreciate then the Indian importer need to repay less amount in US dollar while the Indian exporter gets same less amount in rupee and equalize the payment stream. Here, one both party handle the both currency and whenever there is a payments or receivable the both party together make the payment, make the receivable and whenever the currency appreciate the party which export is get less amount, at the same time the party also import will also get also pay less amount.

So, in this process the offsetting amount of cash flow comes and offsetting amount of cash flow negate the any kind of any kind of operating exposure. However, this streams, this kind of back to back or parallel loan very difficult to do because some extent you may not be in a position to do this kind of activity because of legal reason. It may happen that you may not find some kind of party which export, also that third party imports because it may happen that a party may be only export oriented, a party may be only import oriented and this back to back parallel loan process may not be feasible in that case.

However, there are many MNC's are there, they export in one currency at the same currency they also import. So, for them it is possible possibilities are there to go for a back to back or parallel loans for managing the operating exposure.

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Re-invoicing Centers

- Re-invoicing requires a presence of intermediary between buyer and seller.
- The seller first sells the goods to the intermediary. The intermediary pays the seller in its home currency.
- The intermediary in turn sells these goods to buyer and collects foreign currency.
- The seller directly ships the goods to the buyer but the payment receipt is channelized through re-invoicing center.
- The re-invoicing center deals with each buyer and seller in their home currency. The role of re-invoicing center increases substantially for an MNC, whose incomes and expenses are paid and received in many currencies.
- The re-invoicing center nets all foreign exchange and only hedges the amount which can not be netted off.

There are other way of doing the operating exposure management also, that is called re-invoicing centre. If you see at present many MNC's have many subsidiary, the MNC also spread over different countries, they transact in not only one currency, but multiple currency, their export imports are also in multiple currency, multiple location. So, for them the ideal way of handling the operating exposure is to send, is to establish what is called a re-invoicing centre. A centrally located re-invoicing centre that they try to address the issue of operating exposure by not only by not directly selling or directly receiving from the respective country, but through the re-invoicing centre.

The re-invoicing centre act as a hedging centre for managing the operating exposure arising out of multiple currency transaction process, multiple currency payment system, multiple currency receiving system and multiple currency appreciation and depreciation process. If you see the re-invoicing centre why you need this? Re-invoicing centre requires a presence of intermediary between buyers and seller, the buyers and seller act through a intermediary, the intermediary is nothing but a central invoicing centre.

The seller first sell the good to the intermediary, the intermediary pay the seller in home currency. That means the seller the even though it is a exporter he is not receiving in foreign currency rather he receiving the payment in its own domestic currency, but he is not directly selling to the party, indirectly he is selling to the party, it is selling the goods to the intermediary, an intermediary making the payment in for domestic currency to the seller. The intermediary in turn sells the goods to the buyer and collect the foreign currency. The intermediary after receiving the goods from the seller, sell it to the buyer and collect the foreign currency. If there is any exposure of foreign currency there the intermediary absorb the exposures. If if it is a positive, is a benefit for them for the intermediary, if it is negative it also try to address the operating exposure through other way.

However, the seller of the foreign currency the manufacturing manufacture company is not having any foreign currency exposure because it not getting the payment in foreign currency rather it getting the payment in its own domestic currency. The seller directly shift the goods to the buyer, but payment received through, payment received is channelized through the intermediary.

Seller is selling the goods to intermediary however in only invoicing the goods, but actually a shift from the goods are transported from the seller to the direct location of the buyers. The re-invoicing centre deals with each buyers and each seller in their home currency only. The rule of invoicing centre increases substantially for a MNC because MNC incomes or expenses or the buying or selling or receiving an payment in not only one currency, not only from one place, but multiple currency and multiple geographical location.

But however the MNC is not going, MNC that manufacturing company is not fetching any kind of what is called operating exposure. The operating exposure is managed by the central invoicing centre and central invoicing centre have the, what is called all information all about the foreign currency exposure. They are receiving different currency, they are also paying in different currency. So, then they are in a position to netted out the foreign currency appreciation or depreciation or payment and receive in such a way that the impact of what is called operating exposure is very minimum for the MNC because the invoicing centre have a lot of information and they have significant amount of foreign currency payment and receivable, they have multiple currency payment, multiple currency receipt and this payment and receivable is spread over the year and they know how much they are supposed to pay in one currency, how much they are supposed to pay receive in one currency and they try to address the issue of operating exposure in such a way, the operating exposure should have minimum impact on the MNC itself.

Nowadays many MNC have centralized clearing houses because they have this centralized clearing houses is generally considered as a, considered as the re-invoicing centre. The centralized clearing houses take care the payment receivables of MNC company and MNC only manufacturing the goods and services and say and sell it directly to the intermediary and invoicing they are getting the payment in domestic currency only. So, there may not be exposure for them in their own, if the exposure in form of operating exposure. They are not affected by the appreciation or depreciation of foreign currency and the MNC, the central invoicing centre of MNC take care of the operating exposure for the company itself.

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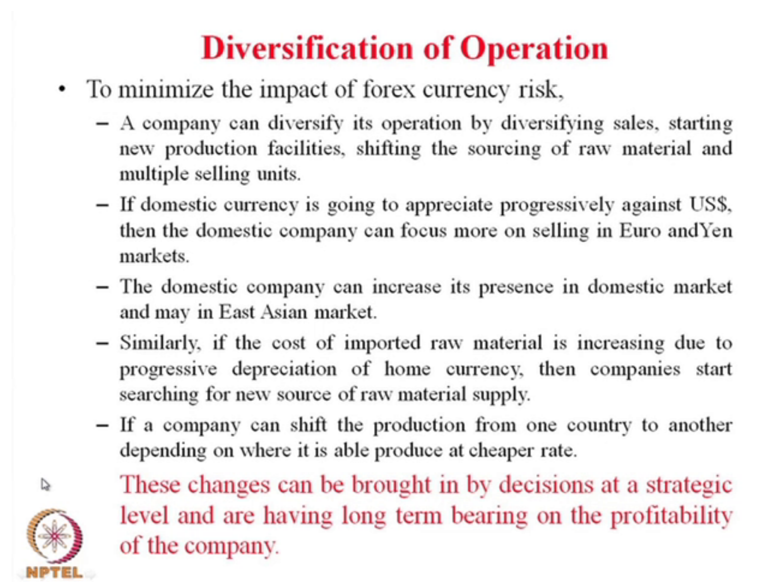

If you, this is, there are other way of what is called diversification also there because re-invoicing or matching the matching, matching cash flow or what is called a payment back to back these are some, some extent directly affect what is called the operating exposure or directly, directly address the question of operating exposure. There are other way of handling the operating exposures also there. These are indirect way, this indirect way is nothing but changing the, changing the company operational activity and this may be called a strategic management of the company because end of the day, the operating exposure effect the value of the company and there should be, there should be strategic decision to reduce the impact of operating exposure and the strategic decision comes from diversification of the company not only the financing pattern but also the operational system procedure also.

And the diversification generally, the companies are doing as a strategic decision process because they are, they are as as an export oriented or they are may be import oriented company and any fluctuation of foreign currency beyond the normal process effect the value of the company, effect the competitiveness of the company and this this need to be addressed through strategic decision process and your strategic decision may be classified into two parts, one part is called diversification of operation, another part is called diversification of financing pattern. Diversification of operation is to minimize the impact of foreign forex exposure, the exposure may, may be in the form of foreign currency operating exposure, may be foreign currency transaction exposure, may be

foreign currency translation exposure. The foreign, any kind of exposure it effect negatively for, for the company and in the long run, if the exposure continue it effect the competitiveness of the company.

So, we have to address the question of for or the impact of foreign currency exposure through strategic decision making process. To minimize the impact of forex foreign currency exposure or risk a company can diversify its operation by diversifying the sales, starting new production facility, shifting the sourcing of raw material and multiple selling unit is, it means that company realize that there is a operating exposure and this operating exposure need effecting the company in the long run. So, we have to take strategic decision so as to minimize this exposure and this strategic decision may be in the form of diversification of sales, may be in the form of starting new production facility, where the domestic currency appreciation depreciation is very less or shifting some parts of the production process to a low cost country, shifting the raw material sourcing of raw material from the depreciated appreciated currency to a depreciated currency area, may be multiple selling unit can established in place of in place of exporting into one country, they can go for a exporting into multiple, multiple country in multiple currency itself.

If the domestic currency is appreciate going to appreciate progressively against the US dollar, against the US dollar then the domestic company can focus on more on selling Euro or Yen market, they can also diversify from US dollar to other, other currency side because by it may, it may not be may not be possible for a domestic currency to appreciate depreciate for all currency may be one or two currency might be appreciating depreciating. Some other currency might be, may not be appreciating, may not be depreciating or may not be affecting the company. So, company can diversify this operational, operational system in such a way that if it is a Euro currency US dollar is appreciating or depreciating the export oriented company can export the product to Euro area, if Euro is depreciating then it can diversify, it can go for Yen area and in such a way the country can go for a multiple currency export, so, that the domestic currency appreciation of one currency can be arrested, can be controlled.

Similarly, the domestic company can increase its presence in domestic market. So, that domestic appreciation of rupee, domestic appreciation of currency can be beneficial for the company. The company suppose is export oriented company, he can find a market in

domestic, significant part of the market in domestic market so that domestic appreciation of currency can be beneficial for the company.

Similarly, if the cost of imported raw material is increasing due to progressive depreciation of home currency the company start searching for a new source of raw material supply because raw material raw material, here if it is available in other currency area, other geographical location and in different currency denomination, then company can also search for a getting such kind of raw material at cheapest cost, cheapest possible cost. Similarly, if a company can also shift production from one country to another country depending on where is, where it is available, able to produce the cheaper rate because it may happen the company cost is increasing because of appreciation of domestic currency, company can source a part or a rental product system, production process can be shifted to other country because the operating exposures are long term in nature.

So, a long term decision making process required because shifting the production process from one country to another country is a long term decision and operating exposure is a long term decision, so this can be addressed through shifting the production process also. You have to understand that diversification operation, diversification operation is a long term phenomenon and this since operating exposure can be brought in by decision of, at a strategic level and are having long term bearing on the profitability of the company.

Since, the operating exposure effect the profitability of the company in the long run, so, we have to take a what is called, what is called stringent decision in managing the operating exposure by relocating the plant, by shifting the raw material sources, by shifting the what is called sourcing the raw material from different sources, by shifting, changing the market by a going for different geographical area of export, different currency area of export, that is all these are long term decision and these long term decisions need to be taken because operating exposure effect the long term profitability of the company.

The sustenance of sustenance of the company in the long run depends upon how we are absorbing the operating exposure or how we are managing the operating exposure and this operating exposure management is a long term decision making process and this

because of this reason diversification operation should also be considered as a part of management of operating exposure.

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Diversifying financing

- Operating exposure can be absorbed by reducing overall cost of production of the company.
- One such way is to changing financing pattern of the company so as to reduce the cost of funds for the company.
- In the event of domestic currency is progressively appreciating companies can raise foreign currencies denominated long-term bonds from international market.
- Euro-bonds, Yen bonds, Yankee bonds are such bonds available in international market at low cost.
- Many Indian companies have raise funds in foreign currencies so as to reduce their overall cost of funds.

Similarly, we can also we can also go for what is called diversifying the financing pattern of the company because operating exposure can be absorbed or by reducing the what is called the overall cost of the company because when the domestic currency is appreciating and the company is losing the market because of appreciating domestic currency, companies should reduce the overall cost of production and one part of the overall cost of production is the fund cost. If the if the company in a position to, company in a position to get the fund at cheap cost, they, there will be avenue for the company to reduce the operating cost also.

By reducing the operating cost the company can absorb significant part of the operating exposure. Similarly, one such way to changing the financing pattern of the company is to reduce the fund cost of the company. Since, domestic currency is appreciating the the company can take a change its financing pattern by sourcing the finance from the low cost fund market, that is low cost international market, that is Euro bond, Yen bond Yankee bond are such kind of bonds available in the international market at low cost. Many Indian company to have raised the fund, low cost from the foreign currency market so as to reduce the overall cost of production and overall cost of funds and this

once you, once you reduce the overall cost of, cost of fund there is a avenue for the company to reduce the cost of production also.

Because end of the day you have to manufacture the good at lowest possible cost because to get the export competitiveness you have to sell the price in the world market at the cheapest possible cost and the operating cost, operating exposure may not allow the company to reduce the cost, but it is possible to reduce the increase the price however with the company in a position to reduce the cost through the diversification of financing pattern, then the company can continue to get, continue to enjoy the export competitiveness in the market.

So, one another way of managing the operating exposure is the diversification of financing pattern and by sourcing the low cost fund from the market by reducing the overall cost of fund and and in this process increasing the efficiency of production process and this is this is also one of the major reason why I mean why a domestic company are getting foreign currency denominated assets, denominated liability in their balance sheet because the foreign currency are cheaper in international market than the domestic currency.

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Forwards, Futures and Options Contracts

Though transaction exposures can be managed by forwards/futures/options contracts, these contracts loose relevance for managing operating exposure.

Derivative contracts like forwards/futures/options can manage only known and certain exposure. However operating exposures are basically uncertain in nature.

No way can a company find out how much of business it will loose if currency appreciates/deprecates and affects its competitive position. Long tenure contracts are not available and if available, these are very illiquid

The other way of handling the foreign currency what is called foreign currency exposure particularly operating exposure is through forward, forward market futures and options market. However, you should understand that transaction exposure can be managed

through forward market, through forward contract and through options and derivatives foreign currency market.

However, operating exposures are not possible to handle. Operating exposures are long term in nature, operating exposure is very difficult to identify, these are, these exposures are what is called what you generally call on very difficult to predict, these are uncertain exposure, if it is certain exposure, if it is a it is a exposure which can be predict the company can price the product in that way. However, company very difficult to identify the operating exposure and these exposures are long term in nature and long term, long term nature of exposure cannot be addressed through forward contract or foreign currency, forward contract or foreign currency options or derivative market. These are long term exposure and long term products, forward product or risk mitigate product are not available in actual market. Only transaction exposure can be measured, can be absorbed or can be addressed through forward market in foreign currency area.

However, these operating exposure cannot be addressed through foreign currency forward future or options contract because long term foreign currency these are, these long term foreign currency fluctuation or continuous fluctuation of foreign currency in the long run cannot be addressed through forward market because forward markets are not available beyond 6 months similarly, futures market are not available more than 1 or 2 years similarly, options market also not available more than 1 or 2 years and these product are not going to help in managing the or absorbing the operating exposure.

Operating exposure need to be addressed through what is called management aspect through reinventing, through changing the operational activity, changing the financing pattern, sourcing the raw material from cheap cost through multiple export unit, through geographical diversification of production and not through what is called financial product like forwards future or options or currency futures. These are not possible to help us in managing the operating exposure.

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Risk Sharing Agreement

- An Indian company has agreed to supply 15000 units of pen-drive to Wal-Mart. Wal-Mart has agreed to pay USD 8 per piece. On the date of the contract, the spot rate is INR 51 per USD. Direct cost of manufacturing per unit of pen-drive is INR 350/- . The fixed cost is INR 400,000 per year for manufacturing base of 20,000 units. If INR appreciate to Rs.48 /- per USD what would be level of operating exposure and how the company manage the operating exposure.

Provide the qualitative answer.

After discussing this, let us go for a minor example. This example we have discussed in earlier session, that is session number 21, when you discuss about the management of what is not manage, what is called the quantification of foreign currency exposure. We have discussed this example. This example is here an Indian company has agreed to supply 15000 unit of pen drive to Wal-Mart. Wal-Mart has agreed to pay 8 US dollar per piece of pen drive. On the date of contract the spot rate is spot rate was 51 rupees per dollar, direct cost of manufacturing per unit of pen drive is 350 rupees, the fixed cost for manufacturing plant is 400000 per, 400000 Indian rupee per year and the manufacturing base has a has a capacity to manufacture 20000 pen drive in a year. If INR appreciate from 51 to 48 rupees what would be the level of operating exposure and how the company manage the operating exposure.

This question we have discussed in the earlier session, but we have discussed by identifying the quantity, what is the quantum of operating exposure. Today, we will be discussing in this session, what is the qualitative way of answering this question. How we can measure, how we can absorb or manage the operating exposure in a qualitative way?

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Short-Questions

- Explain with examples, what are the main differences between operating and transaction exposure.
- How companies manage their operating exposure?
- Why operating exposure is also known as strategic/economic/competitive exposure?
- What is Risk-sharing agreement? What aspects party must take precaution while executing a risk-sharing agreement?
- What roles reinvoicing centers play in management of operating exposure?

This answer will be, we, as we discussed the, as we discussed here.

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Answer : Qualitative Manner

- INR is appreciating and hence the domestic company is losing the competitive power and also its export volume is suffering.
- If it increase the price, the export volume would suffer more.
- Hence, it needs to reduce the overall cost of production by sourcing the inputs from low cost areas, diversification of export destination, reducing the operating cost and improving the overall efficiency of both manufacturing and delivering supply chain.
- It may source its funding in USD to minimise the overall cost of funds.

The problem give us there is a INR is appreciating, that is Indian rupee is appreciating and the domestic company is losing the competitive power and also its export volume. If it increases the price, if the company increase the price to absorb the operating exposure that is INR is appreciating, so, there is operating exposure. To absorb this operating exposure the company increase the price from 8 dollar to 10 dollar, it may lose the market further. The export volume will further suffer. So, there is no way the company

can reduce increase the price of the export exportable goods. So, it has to diversify the operating system.

Here, diversification means the company has to address how to reduce the cost of production, how to improve the efficiency of production system, how to source the raw, source the raw material or get the raw material at cheapest possible cost, how to outsource the production process, so, that it can produce the pen drive lowest possible cost, how to improve the manufacturing efficiency and delivering efficiency. These are the theoretical side the company has to discuss and take drastic step to reduce the overall cost of production.

Only by reducing the overall cost of production the company can improve it, sell the product at cheapest possible and at the same time company can address the issue of, address the problem of operating exposures and the theoretical sensor to this is that company has to source this raw material from different sources, company has to produce at lowest possible cost, company has to finance its (( )) finance its export in such a way the cost of export, cost of what is called the fund will be reduced, company can pay lowest possible wage, then company can also go for multiple location of export, company may diversify the geographical, geographical area export, in place of exporting in US dollar company can denominate the export in other currency where against which the domestic currency that is INR has not appreciated. In this way the company can absorb the operating exposure.

For you there are some short question, I have mentioned here. You can discuss the short question. Explain with example what are the main differences between operating and transaction exposure? As we discussed an answer is operating exposure is long term in nature, operating exposure change the value of the company, operating exposure very difficult to identify, operating exposure need to be managed and addressed through strategic decision. However, transaction exposure short term in nature, affect the each and every aspect of transaction of the company, is a, the transaction exposures are very easily identified and these can be absorbed, transaction exposure can be absorbed through what is called forward market, currency forward market or purchasing any kind of currency risk mitigation instrument.

How company manage their operating exposure? As we discussed company can manage the operating exposure by re-invoicing, by making cash flow statements, by sourcing the what is called risk sharing process. The company can also manage the operating exposure by through operational diversification through financial diversification, you can discuss, we have discussed this, you can write that.

Why operating exposure is also known as strategic, economic and competitive exposure? We have discussed that operating exposure affect the value of the company, operating exposure need to be addressed through strategic decision by shifting the raw material, shifting the plant machinery, by shifting the, sourcing the raw material from different source, by outsourcing the product, outsourcing the production process, by changing the technology, by changing the diversification of the export. These are the strategic decision and this for that reason the operating exposure also known as strategic exporter and operating exposure affect long term profitability of the company and it affect the competitiveness of the company and because of this reason it is known as, this operating exposure also known as competitive exposure.

What is the risk sharing agreement? What aspect party must take precaution while executing a risk sharing agreement? We discussed that risk sharing agreement is one of the process to reduce the operating exposure and this process and this risk sharing agreement two parties share the risks and the of risk of operating, operating exposure that is currency appreciation depreciation, they should develop the, they should share the agreement in such a way that the, there will be inbuilt flexibility for two party.

Whenever there is appreciation or depreciation both parties should share their risk and whenever there is a beneficial of appreciation depreciation of both party should share the benefit also and this the agreement should also should be mentioned that negotiation should be open, negotiation should be taken care whenever there is a requirements are there, they can re-negotiate for the agreement, whenever there is a beneficial or difficulties are there in in executing the contract.

What roles re-investing centre play in management of operating exposure? I what we discussed the re-investing centre. Re-investing centre is a central agency who take care the operating exposure of the company they all operating exposure, that is payment and receivables passed through the re-invoicing centre and they get the foreign currency

receivables and payment and they manage the foreign currency exposure by netting out the payments and receivables in such a way the impact of operating exposure to the company is very minimum.

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- Multinational Financial Management by Jeff Madura, Thomson Publications
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And you can go through the references I mentioned here. International Financial Management by Eun and Resnick, International Financial Management by Jeffry Madura, financial management manage, Multinational Financial Management by Alan Shapiro, this three books I have referred in my discussion process. You can go through the book.

Thank you.