

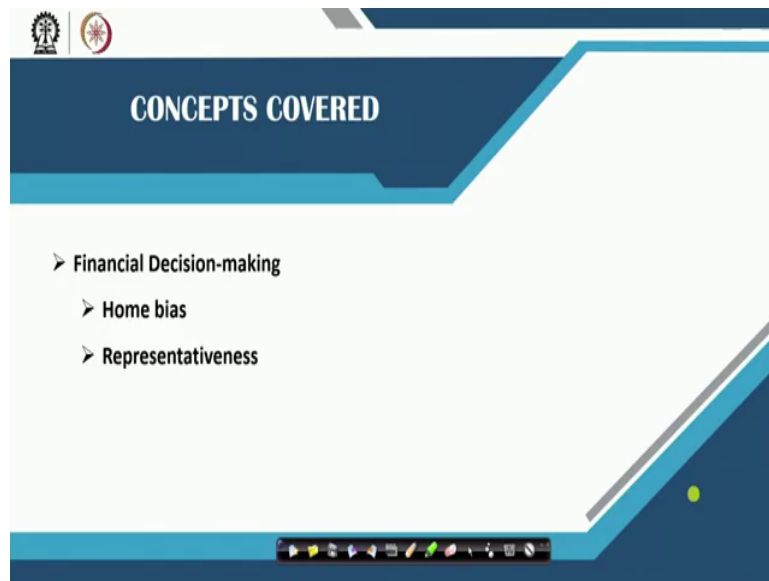
Behavioral and Personal Finance
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Module - 01
Behavioral Economics and Finance
Lecture - 15
Biases and Financial Decision-Making

Hi there. Welcome back to the course Behavioral and Personal Finance. Have you ever lost or have you ever felt to be lost in a crowd of lot of people? Well, when you are face such situation the first reaction you do is to try to find familiar faces. Imagine an investor being in the same situation. When an investor is lost in the host of information what he or she tries to do is to find the familiar information and based on that takes a decision.

Today's session is based on these phenomena. Today we are going to discuss two of the mental heuristics or behavioral biases that might be affecting the investment decision making process.

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The biases that we are going to discuss today are home bias and representativeness. Basically we are going to discuss briefly about how heuristics can affect our decision making in the context of familiarity and the availability of information.

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Familiarity and Financial Behaviors

Home bias

- Bit dated, but still relevant that domestic investors hold mostly domestic securities:
 - American investors holding U.S. securities, Japanese investors mostly Japanese ones;
 - French & Poterba (1991): *Home Bias ?*

Country	Market value weights	U.S. Investors	Japanese investors	U.K. Investors
U.S.	47.8	93.8	1.3	5.9
Japan	26.5	3.1	98.1	4.8
U.K.	13.8	1.1	0.2	82.0
France	4.3	0.5	0.1	3.2
Germany	3.8	0.5	0.1	3.5
Canada	3.8	0.1	0.1	0.6

Source: French, K.R. & J.M. Poterba (1991), "Investor diversification and international equity markets", *American Economic Review*, 81: 222-226.

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First we will talk about home bias. When we mention home bias we understand that people prefer information or assets or securities for investment which are familiar to them. Basically it is about individual's preference of familiar information or familiar decision over unfamiliar decision. We have already discussed earlier that unfamiliarity breeds risk and uncertainty and people always prefer to take decisions which are familiar and less uncertain.

To begin with I am going to discuss briefly about some experimental evidence conducted through a research in early 90's by a couple of economists. If you look at the screen in the table that numbers represent in the first column the market weights of different financial markets across the world. The first column represents the country name, second column in the table represent the market weight.

Basically this is the weight of the market of each of the respective countries given in first column as the market value in the world. And, then there are three different columns representing three categories of investors belonging to three different origins. Here the researchers try to show that people belonging to a particular country prefer investing in the stocks which are originating in the same country.

For example, if I am an Indian and I have some spare money to invest, I would like to invest in a company that is Indian and my investment decision will be biased because of the reason that I am familiar with the company and I prefer this company over other companies which are non-Indian. This particular phenomena is known as home bias. If you look at the table it shows that US market is valued to the extent of 47.8 which is the largest financial market in the world. And, about 93.8 percent of US investors prefer to trade in US markets which means the remaining 6.2 percent of investors are coming from non-US origins. Of these 1.3 percent is Japanese and 5.9 percent is UK in origin investors.

Basically, it is this indicates that the preference of investors from the home origin over stocks or markets which are there from their non-home country is very significantly high. In the case of Japanese market you can see that most number of traders are coming from the Japanese origin to the extent of 98.1 and in case of UK also you see 82.0 percent of market trading is coming from the people or the investors who are UK origin.

This is a very interesting phenomena because this goes against the philosophy of true diversification. When we talk about diversification if you could recall we discussed earlier that investors should diversify their investment in the sense that they should not put all their money in same risk profile of assets and they should invest in investment avenues which are different from each other in terms of correlation or other relation measures.

Suppose, I have some money to invest I should put my money in risky and risk free assets in certain proportion, so that if one asset goes well that is fine the other might even if the other might goes go down my overall investment performance would be reasonably well.

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Familiarity and Financial Behaviors
Home Bias (cont.)

- Bias towards home country: evidence against true diversification
 - Diversification to reduce risk without surrendering returns: \pm correlations
 - Average pair-wise correlation: 0.502 (1975-1989); 0.721 (2001-2018)
- Why investors might hold more domestic shares?
 - Optimistic about their markets relative to foreign markets.
 - Believe that their market would beat the 2nd best market *significantly*
 - French & Poterba (1991)
 - Information asymmetry, behavioral and governance issues, cross-border taxes*
 - Huberman (2001); Mishra & Ratti (2013)

*Source: [1] Huberman, G. (2001), "Familiarity breeds investment", *Review of Financial Studies*, 14: 659-680.
[2] Mishra, A.V. & R.A. Ratti (2013), "Home bias and cross border taxation", *Journal of International Money & Finance*, 32: 169-193.

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As we have seen through the empirical evidence earlier, people prefer to invest in the securities or the stocks which are coming from their home country and in the process they somehow exhibit of a behavior which goes against the diversification philosophy. People investors are supposed to diversify their investment to reduce the risk because diversifying across assets in terms of asset classes as well as asset properties they try to minimize the risk and optimize the return.

If you try to see the overall correlation characteristic of this markets that we have discussed earlier US, Japan, UK Germany and so on. The sample correlation as calculated with respective pairs in 1975 to 1989 was 0.502 and over recent years with a data from 2001 to 2018 the sample correlation was 0.721. It implies that over recent years the pair wise correlation across different markets have increased and this indicates that if you diversify

your investment across markets you would probably not get the desired benefit in terms of reducing the risk or optimizing the return.

Now, if that is the case then why do investors prefer home stocks over stocks of non-home country. Basically, there are certain explanation behind this behavioral phenomena. If you look at the behavior of investors essentially they are optimistic about their local countries or local economies and that is why they prefer companies or forms which are local over forms which are of foreign origin.

For example: if I am going to invest in Indian stock market I would prefer companies which are Indian because I am familiar with their businesses and their management and that is why I am more comfortable investing my money in Indian origin companies. This behavior can also be explained with the help of the belief of investors that was empirically proven by researchers that and the investors believe that their home market would beat the next best market to significant extent.

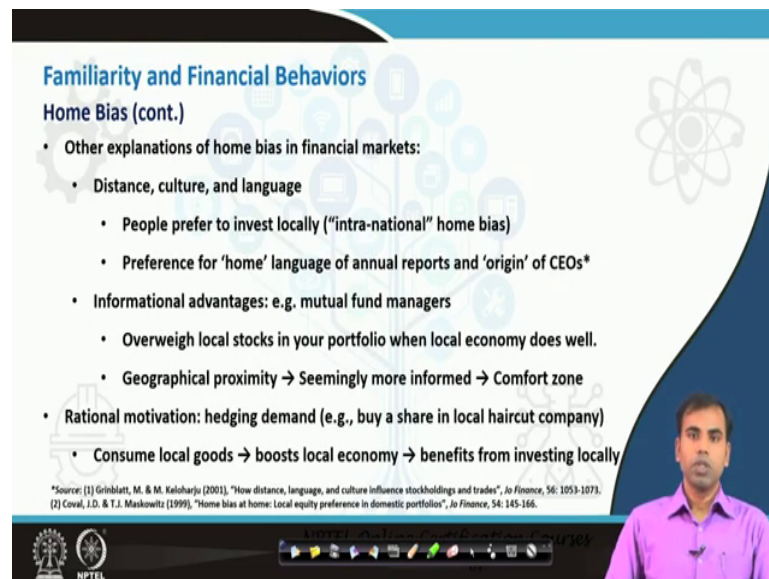
What it implies that if I am an Indian investor and you ask me whether I would like to invest in Indian stock stocks or the stocks of some non-Indian companies I would prefer Indian stocks over non-Indian stocks. Because, I believe that during my holding period Indian stocks and Indian markets would outperform the stocks which are non-Indian origin and that is basically because of home bias.

Another reason of this home bias could possibly be the information asymmetry or behavioral and governance issues as well as cross border taxations. What in information asymmetry means is as we were discussing earlier people are more familiar about local companies than companies of non-Indian origin in the Indian context. Because, they have access to more information about the businesses the management the economic environment of the country and other related relevant information; that is why they have more information about the companies which are of Indian origin than the companies which are non-Indian origin.

This information asymmetry might drive their behavior of preference towards Indian companies for investment purposes. Similarly, there they have more information with respect

to the governance and other factors such as taxation. It was also shown in some empirical research that in some countries government used to withhold taxes for foreign investors and that is why foreign investors would prefer to invest in the stocks which are of their home country origin. If we try to extend this discussion further.

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Familiarity and Financial Behaviors

Home Bias (cont.)

- Other explanations of home bias in financial markets:
 - Distance, culture, and language
 - People prefer to invest locally ("intra-national" home bias)
 - Preference for 'home' language of annual reports and 'origin' of CEOs*
 - Informational advantages: e.g. mutual fund managers
 - Overweigh local stocks in your portfolio when local economy does well.
 - Geographical proximity → Seemingly more informed → Comfort zone
- Rational motivation: hedging demand (e.g., buy a share in local haircut company)
 - Consume local goods → boosts local economy → benefits from investing locally

*Source: [1] Grinblatt, M. & M. Keloharju (2001), "How distance, language, and culture influence stockholdings and trades", *Jo Finance*, 56: 1053-1073.
[2] Coval, J.D. & T.J. Moskowitz (1999), "Home bias at home: Local equity preference in domestic portfolios", *Jo Finance*, 54: 145-166.

We could try to understand this home bias phenomena among investors in financial markets with a different context. There are certain qualitative features of markets as well as investors that might explain this behavior of home bias. One of the most prominent factors that might be driving this home bias among investors could be distance, culture and languages.

In some research it was proven that people prefer local stocks because they want to invest intranationally not internationally also in some other research it was seen that when annual

reports of the companies are published in local language compared to an international language such as English, investors preference for local companies increases.

Similarly, if companies are headed by CEOs of home country origin, investor's preference for such a stock always show significant increase in long to medium run. These examples of cultural language and distance related factors explain the investor's preference of local companies over non local companies.

Some other examples or factors that might explain this behavior would be information informational advantages. What happens in case of mutual fund managers? Because mutual fund managers are expected to have more information than the retail or individual investors and that is why they can use this information to make decisions about asset allocation towards companies which are of home origin and that explains their home bias behavior.

One factor might be observed in terms of over weighting of information which are local and related to local companies over companies which are of non-local origin. This may be explained in terms of under-weighting of foreign companies or non-local companies and this essentially makes the diversification process flawed.

Some other reasons for home bias among investors could be geographical proximity because they believe that geographical proximity would lead to seemingly more access to information. And, this will make them in a very comfortable position for decision making and that is why they prefer companies which are of home origin than companies which are non home origin.

Unlike several other behavioral heuristics and biases this bias can be used positively as well. So, if we try to explain the rational motivation of home bias, it increases or to some extent influence the hazing demand among investors for example. Suppose you are living in a locality where you have a company in the business of haircut and since this is a non-tradable commodity or service you prefer to go to the same shop or same outlet for your haircut again and again.

So, if you invest your money in the company of this type which is providing haircut services in your locality, it increases the hazing demand and serves the purpose. So, on one side you are familiar with the product, service and business processes of the company. So, you are comfortable you have more information. On the other side your trust in the company would lead them to provide better services and keep doing well in economic terms.

This can be generalized in terms of people's behavior to consume local goods that boost local economy and subsequently it boosts the investors benefit in terms of more investment returns from the local investments. And, that is why probably there is a recent phenomena where people are motivated to invest in the local companies and consume local products and services. So, that this loop or the process keeps on going.

When we talk about home bias we can also consider another bias or heuristics that may be originating from the familiarity heuristics. So, we started the discussion with familiarity heuristics where people have more information or they have better information with respect to a particular outcome or decision and that is why their decision making process is affected by the availability of more information in terms of stock evaluation or buying or selling of a particular stock in financial markets.

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Representativeness and Financial Behaviors

Good companies vs. good investments

- Good companies:
 - High-quality management: good governance
 - A strong image/brand/goodwill: market share
 - Consistent growth in earnings: growing future cash flows
 - Good investment??
- Good companies sell at high prices and bad companies at low prices: basic economics
- Once adjusted in the prices, no further reasons to favor a good company over bad one?
 - But are good companies always good investments?

*Source: [1] Grinblatt, M. & M. Keloharju (2001), "How distance, language, and culture influence stockholdings and trades", *Jo Finance*, 56: 1053-1073.
[2] Coval, J.D. & T.J. Moskowitz (1999), "Home bias at home: Local equity preference in domestic portfolios", *Jo Finance*, 54: 145-166.

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This bias can be named as representativeness heuristic. When we talk about availability of information and people's decision making process based on those information we sometimes feel that people make systematic mistakes in terms of considering the information for their decision making.

For example: if we consider a company that is known to be a good company and when we say a good company it means that it has a very good quality of management personnel, they have very good governance system, they are known for their good brand emails or goodwill which means they have strong market share and they keep growing. It also has consistent growth in earnings and this implies that their future cash flow will keep growing and that is why these companies are known to be good companies.

Now, if I ask you as an investor do you consider a good company to be a good investment opportunity as well. Think for a second and consider whether a good company is always a good valuation opportunity. If we go to the basic economics, we understand that products which are considered to be good are sold at a higher price with whereas; products which are considered to be of lesser quality are sold at lower price.

So, the moment when we contextualize this example in financial market good company's stocks are sold at a higher price whereas, bad companies stocks are sold at a lower price. This is the basic economics. Now, the moment this information about a company being good or bad it adjusted in the prices in the stock market the overall information adjustment is done.

So, there is no further reason for favoring a good company or a bad company which means that if a particular company is traded in the stock market for 10 rupee and another company which is considered to be a very good company is traded in the stock market at 100 rupees. There should be no reason to favor for an investor a particular companies which is trading at 100 rupees, because the prices themselves have reflected the good or bad characteristics of the company.

Then why investors prefer good companies over bad companies. Let us try to understand this in the context of availability of information and heuristics bias.

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Representativeness and Financial Behaviors
Good companies vs. good investments (cont.)

- Are good companies always good investments?
- No info on co.'s attributes *should* be associated with investment value!
 - All info on company quality already imbedded in stock prices (EMH)
 - Prices of stocks reflect the info (incl. quality)
 - **All companies (good ones and bad ones) equally good investments (ex ante)**
- Investors consider good companies as good stocks (Shefrin & Titman, 1995). Why?
 - Representativeness bias!!
 - People more likely to invest in firms with positive image (good quality) than those with a negative image (bad quality): quality proxies value (Ackert & Church, 2006)

*Source: [1] Shefrin, H. & M. Titman (1995), "Making sense of beta, size, and book-to-market", *Jo Portfolio Management*, 21: 26-34.
[2] Ackert, L.F. & B.K. Church (2006), "Firm image and individual investment decisions", *Jo Behavioral Finance*, 7: 155-167.

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So, the basic question, that we are asking here is are good companies always good investment; now when we contextualize this in the sense that availability of information determine peoples preferences. So, we have seen that prices of a stock could be reflection of the information that are available and information on companies management quality or any other attributes such as earnings growth or brand value or market share or any other factors.

So, these information have already been incorporated in the prices of these stocks which means that if a company is traded at 5 rupee or 10 rupee for that matter, this 10 rupee valuation has already incorporated all the information pertaining to companies management market share or earnings growth and that is why it is traded at 10 rupee. Whereas, some other company which is considered to be a good company might be trading at 100 rupees because

of the same reason having good management with better brand image, higher market share or higher growth in earnings and cash flows.

So, these two types of companies bad ones and good ones are equally good investment opportunities. It means that if a company is considered to be a bad company because of lower quality or lower attributes it is being sold at a lower price. So, you are paying a price which is commensurate with the quality of the company. So, there should be no reason for favoring a particular company which is good over a company which is bad just because of this management quality or financial attributes or market share or brand value because it is already incorporated in the prices.

Then the question is why do some people or some investors prefer good companies over bad companies. So, the reason here is representativeness bias. What representativeness bias indicate is people are more likely to invest in assets or finance investment opportunities with good image or positive image over negative image. And, here they make a mistake of considering good image to be of good value and that is why their investment decisions are affected by this good quality company versus bad quality company.

So, when they invest in a company with a negative image they considered this company to be of bad quality and bad quality here is taken as a proxy for bad valuation. Whereas, if we go back to the basic economic argument the lower price of a bad stock of a bad company itself is a reflection of the true valuation of it is quality of management or market share or earnings growth or any other factors.

So, in that sense for a rational investor stocks of a good company or that of a bad company should be equally good for an investment opportunity. This is where heuristics such as representativeness bias might affect our decision. So, in case you are making a decision with respect to asset allocation across bad or good companies considered this heuristics to be an important factor before you make the final decision.

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Representativeness and Financial Behaviors

Return chasers

- Investors choose securities and investment funds based on past performance.
 - Investment performance of recent past: representative of future performance.
 - Also seen as recency effect, trend-following, momentum chasing strategies
- More investors become bullish after the market recently turned up (AAII)*
- MFs: strong past performance → abnormally high inflows of investor money*
 - Information search: costly affair
 - Bounded rationality: search for heuristics-based metrics
- How often do you tend to show this behavior?

*Source: [1] DeLong B. F. M. (1998), "A portrait of the individual investor", *European Economic Review*, 42: 831-844.
[2] Sirri, E.R. & P. Tufano (1998), "Costly search and mutual fund flows", *Jo Finance*, 53: 1589-1622.

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Similarly, when we talk about the impact of information availability on financial decision making we know that the ease of information access determine our choices. And, we have also discussed earlier that in human beings are affected by their experiences in the past and if the experience is from the recent past it is given higher weightage compared to the experience that is that was experienced in later past.

So, people tend to give over weight to recency over the latency and that is why peoples behavior towards choosing a particular asset is dependent on how they had experienced in the recent past and that experience would explain their final financial decision making behavior. This tendency of individuals being affected by their recent experiences or access to the recent information can be seen in the survey conducted by American Association of Individual

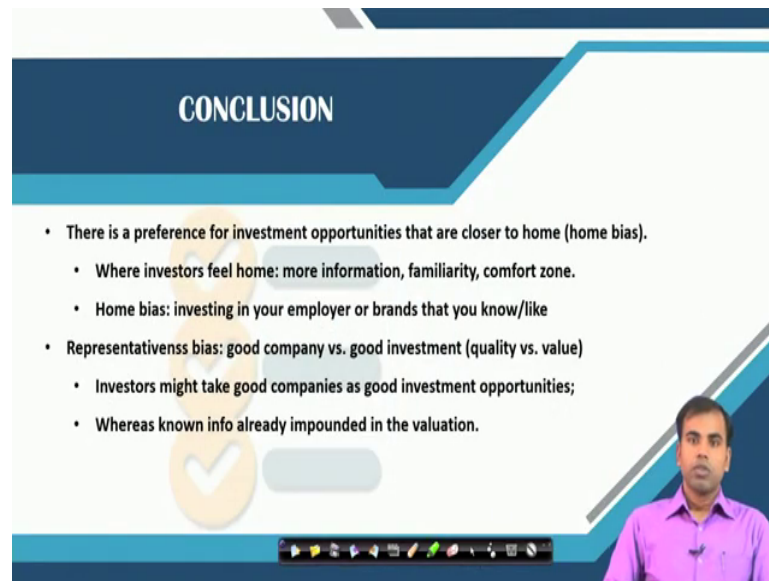
Investors where they are surveyed every fortnightly and asked whether they are positive or negative or neutral about the movement of the stock market.

And it was observed in some research studies that people tend to be more bullish towards stocks which have been performing really well in the recent past, and that is where they give more weightage to the recent experiences or recent performance of the companies. This phenomena has also been observed and empirically proven among mutual fund investors where their decision to allocate the funds across different assets is affected by their recent performance.

For example, if they had experienced positive performance in certain asset classes, they over allocate their funds to that particular asset class whereas, if they had experienced negative performance in some other asset class they under allocate to that particular asset class. The reason for this kind of behavior could be explained in terms of information search which is a very costly affair because the moment you are overlaid loaded with information you tend to find shortcuts or heuristics which will help you in decision making and in the process you rely on the recent information or the information that is coming very easily.

Another explanation could be the bounded rationality because when we are loaded with information we need to understand and analyze the information appropriately. So, we tend to find shortcuts and heuristics and that is why we rely on the information that has most easily available and incorporate that information in our decision making.

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CONCLUSION

- There is a preference for investment opportunities that are closer to home (home bias).
 - Where investors feel home: more information, familiarity, comfort zone.
 - Home bias: investing in your employer or brands that you know/like
- Representativeness bias: good company vs. good investment (quality vs. value)
 - Investors might take good companies as good investment opportunities;
 - Whereas known info already impounded in the valuation.

So, in this session we have discussed two major phenomena of investors behavior. We have understood and explained with the help of some examples where we witness investors preference over companies which are of non non-local origin for companies which are local origin and it is know this bias is known as home bias where investors try to seek comfort zone in terms of investment decision making. And, that is why they rely on more information and proximity in terms of geographical proximity or information availability and prefer to come preferred companies which are local and they tend to invest more investment in local companies or homegrown companies.

This might lead to people's tendency to find shortcuts for information access and this may translate into representativeness bias where people consider one thing to be the other and in the process they might make system it systematic mistakes. In the example that we discussed we highlighted that people might consider good companies to be good of investment

opportunities whereas, the prices of those good or bad companies have already been incorporated all the information and attributes that is publicly available.

So, it is advised to consider this representativeness bias in a positive way when an investor has access to private information and that is where they can have a better valuation of the investment opportunity. That is all for now.

Thank you very much.