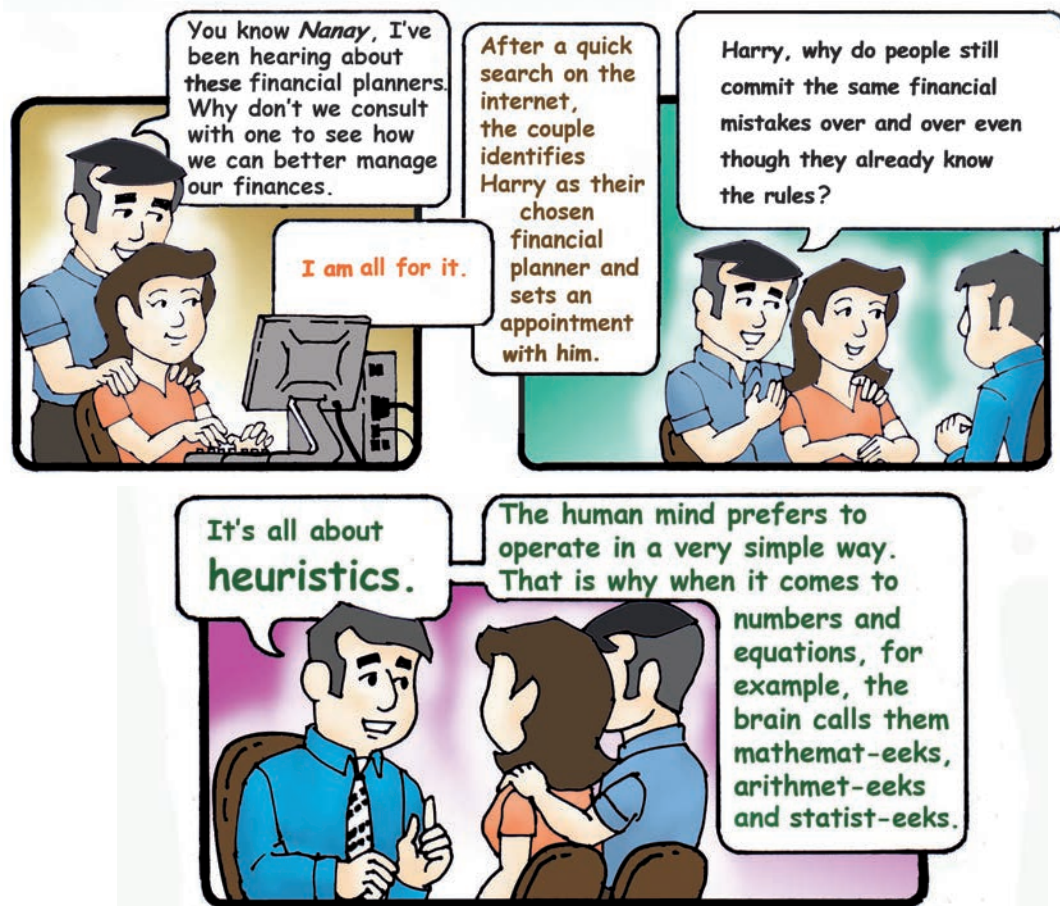


# CHAPTER 4



It's 5:30 AM on a Wednesday, and about four weeks till *Mang* Domeng flies back to his job in the Middle East.

*Aling* Lorna fears that when *Mang* Domeng is gone, they would not be as strong in resisting temptations to spend. While he is here, *Mang* Domeng is the commander-in-chief and everybody toes the line.



“But seriously,” says Harry, “tell me how you would react to the picture I am going to show you.” Harry proceeds to show the couple the following picture.

$$\begin{aligned}
F_p(\bar{x}, \bar{w}, \bar{d}, \bar{v}) = & \Theta(v_{p,\min} - v_{p,\min}) w_{t,\min} \sum_1^{n_t} \Theta\left(\delta_{thres,\min} - \sum_1^b DDC_{ij} x_j\right) \left(\sum_1^b DDC_{ij} x_j - d_{p,\min}\right)^2 \\
& + \Theta(v_{p,\max} - v_{p,\max}) w_{t,\max} \sum_1^{n_t} \Theta\left(\sum_1^b DDC_{ij} x_j - \delta_{thres,\max}\right) \left(\sum_1^b DDC_{ij} x_j - d_{p,\max}\right)^2 \\
& + \sum_{j=1}^{n_t} \left[ \Theta(v_{t,\min} - v_{t,\min}) w_{t,\min} \sum_1^b \Theta\left(\sum_1^b DDC_{ij} x_j - \delta_{thres,\min}\right) \left(\sum_1^b DDC_{ij} x_j - d_{p,\min}\right)^2 \right. \\
& \left. - \delta_{thres,\max} \left(\sum_1^b DDC_{ij} x_j - d_{p,\max}\right)^2 \right. \\
& \left. - v_{p,\min} w_{t,\min} \sum_1^{n_t} \Theta\left(\delta_{thres,\min}\right) \right]
\end{aligned}$$

*Mang* Domeng says that he could barely understand the numbers while *Aling* Lorna says that she suddenly got a headache.

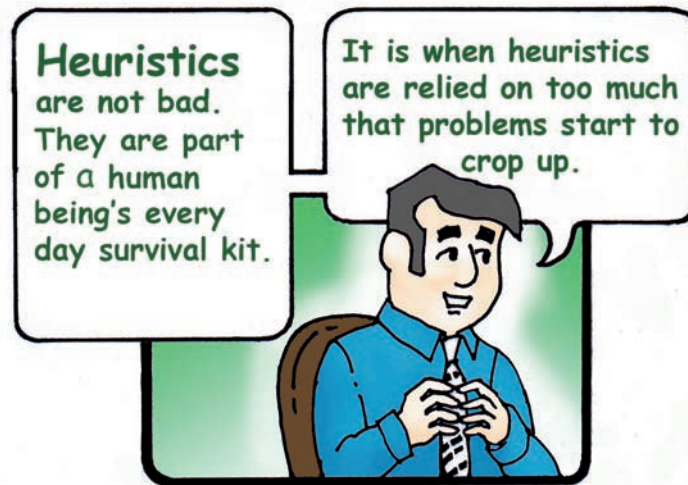
Harry says, “Behavioral economists say that people suffer from number numbness. And the best way for people to overcome this number numbness is to apply heuristics.”

## Heuristics

“What are these heuristics?”, asks *Aling* Lorna.

Harry replies with the following lengthy discourse while the couple listens intently:

“Heuristics are nothing more than educated guesses, rules of thumb, intuitive judgments and plain common sense. Heuristics are necessary for people to get through the myriad of decisions they have to make in a day, some say as much as 35,000 a day. And the way to cope is to use the short-cuts to decision-making that heuristics provide.”



The over-reliance on heuristics gives rise to distortions much like with the overuse of an ordinary magnifying glass. Using a magnifying glass with an extended arm will blow up the image of say, a single letter on a page of a newspaper. But take just one or two steps away, keeping the arm extended and the image of the letter turns from blurred to clear but inverted.

One kind of heuristic is that people usually think in relative terms.

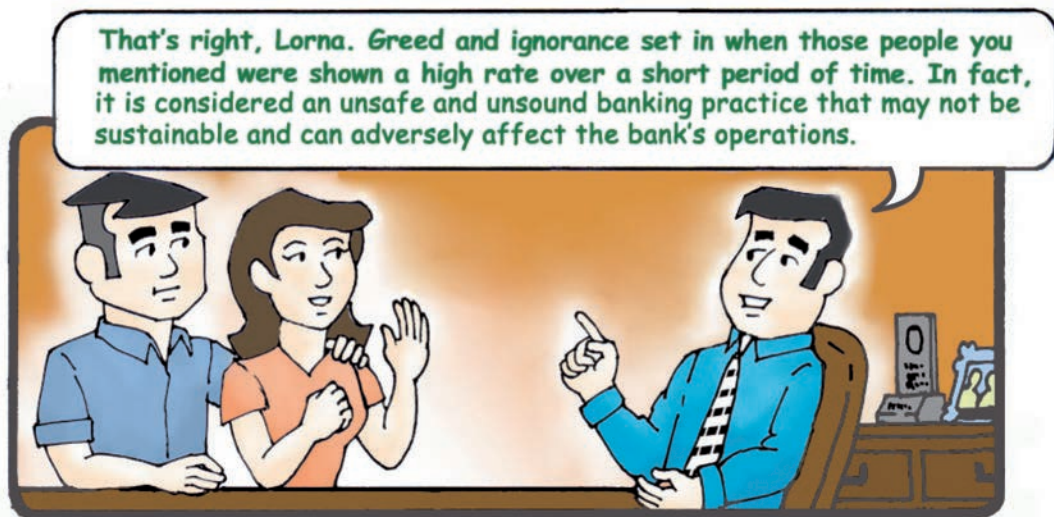
Someone is beautiful or handsome compared to someone else. A building is tall relative to a building that is not as tall. People would not consider the waiting time at a bank long if they did not have the waiting time with another bank to compare it to.

In addition to thinking in relative terms, people also assign a higher value to higher numbers and conversely a lower value to lower numbers. This is probably the reason why more expensive products are given higher model numbers, whether these are cellular phones or cars.

Still another heuristic is that people prefer to enjoy sooner than later. This is why there is a proliferation of instant goods and services from instant noodles, fastfood restaurants, communications on demand via the Internet and many more. In Filipino, it is called "now *na*" (now already).

All three heuristics, thinking in relative terms, assigning a higher value to higher numbers and the preference to enjoy things now rather than later can also apply to money and investing. Economics teaches that postponing present consumption through investing can lead to more consumption in the future. But heuristics says that short-term investment with a high payout will be preferred over a longer-term one even if the risks with the short-term investment are higher.

*Aling Lorna* exclaims, “You know *Tatay* and *Harry*, that is exactly what happened to *Delia’s* office employees’ association. They believed this sweet talk of a bank officer that their money would not only be safe but would also be earning higher than average interest rates over a short period of time. Nobody even dared to question how the bank could make a profit when it would pay a very high deposit rate at a time when average lending rates were much lower. Her co-employees took the lead and deposited their money. When they were asked why they deposited their money even though they knew it was too good to be true, these employees just said that they were hoping to enjoy the ride while it lasted. Unfortunately, the high payouts were unexpectedly cut short with very few being prepared for it. As a result, hundreds of millions of Pesos were lost.”



## Financial Expert's Corner

*Money and investing are quite difficult to comprehend because they invariably rely on computations that can range from simple to advanced calculations. Combine this with how busy people are nowadays and you have a situation where people just ask the following questions in judging an investment:*

- *What is the interest or how much will my money earn?*
- *When do I get my money back?*
- *Are both the principal and interest guaranteed?*

*However, thinking that a promised high return or interest over the short-term is better, makes sense only up to the point before it begins to run counter to the unbreakable law in investing which states that **high potential investment return equals high risk; low potential investment return equals low risk.***

## Risk vs. Return

“OK, Harry,” *Mang Domeng* says, “Please explain to us what you mean by risk and investment return.”

Harry continues with his lecture. This time around, he moves to his whiteboard and writes the following equations while the couple’s eyes are glued to the board. Harry says, “To better understand the workings behind risk and return, look at the formula for computing interest:

### Formula 1

$$\text{Principal} \times \text{Net Interest Rate} \times \text{Time} = \text{Peso Interest}$$

Given the following assumptions,  
Principal = Php10,000  
Net Interest Rate = 2% p.a.  
Time = 1 year

*Aling* Lorna says, “Hey, that’s the savings interest formula that Sir Ed, our bank branch manager, taught me.”

“That’s correct, *Aling* Lorna,” says Harry. “Now after one year,” Harry continues, “the Peso interest would be computed as:

$$\text{Php}10,000 \times 2\% \times 1 = \text{Php}200$$

“Now,” Harry asks, “how do you think the future value of money is arrived at?”

*Mang* Domeng answers, “You simply add the interest you earned to your principal or original investment.”

“Correct again,” Harry says, “To get the future value of the investment, the Peso interest is merely added to the Principal as follows:

$$\text{Principal} + \text{Peso Interest} = \text{Future Value}$$

or

$$\text{Php}10,000 + 200 = \text{Php}10,200$$

Harry rounds up his mini-lecture by saying, “If all of the future value after the first year would be re-invested, the same formula can be applied. But this time around, the starting principal will be Php10,200. The more money is re-invested, the higher the future value will be. This is called *compounding returns*. On the other hand, if the interest would not be re-invested in the second year, only the original principal of Php10,000 will be used in the formula. The interest earned is

## Financial Expert's Corner

*It can be seen from the above formulas that the future value of any investment is dependent on the:*

- 1. size of the principal (re-)invested;*
- 2. level of interest (or return) to be earned; and*
- 3. time money is left to earn.*

simply spent away.

Harry says, “*Mang Domeng and Aling Lorna*, initially, your financial goals will be fixed and you will just play around with the amount of money you invest and re-invest, the rate at which your money earns and the time you allow your money to earn. Please avoid being greedy by running after very high returns or investing too long. As a rule, long-term instruments provide potentially higher returns. And the higher the potential investment return<sup>4</sup>, the higher the risk is as well. This is true for both short-term and long-term investment. This risk can come in the form of returns not meeting expectations and even leading to the loss of principal. It is best to be familiar with the prevailing rate of interest on deposits or bonds and compare them with what is being offered to you. It is also prudent to ask where the money will be invested to make sure these are legitimate activities and to understand whether the proposed yield is realizable.”

“Investing can really be risky,” comments *Mang Domeng*.

“That is true, *Mang Domeng* but short-term investments that seem to be safer also contain risks. Investment returns from relatively safer investments may not be enough to counter the inflation rate,” Harry explains.

“What does inflation rate mean?”, asks *Aling Lorna*.

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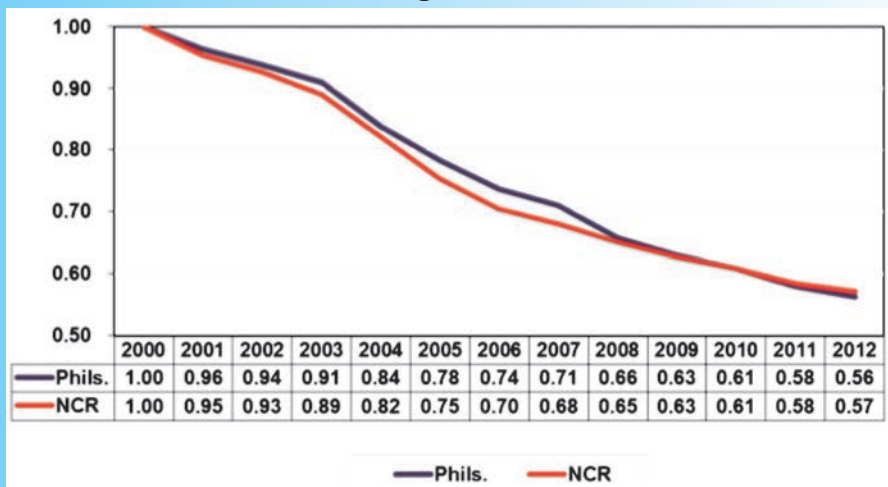
<sup>4</sup> *People desire to enjoy things now rather than later. The only way people can be persuaded to postpone consuming things now is if they would be allowed to consume more in the future. And with investing under normal situations, this means long-term investments should give higher returns than short-term investments.*



Harry says, “Take the case of college tuition fees. If an investor’s child is newborn, it will only be after 17 years before the child starts college. If the investor wants his child to study at a college wherein the tuition fees are currently at Php80,000 a year, the future cost of the first year’s college education at an inflation rate of 5% per year would already be over Php180,000 by the time the child gets there. If the investor saves Php80,000 today and reinvested all earnings but only placed his money in a time deposit paying a net of 2% p.a., he would just have slightly over Php112,000 by the time his child steps into college. All investments bear risk, just in differing levels. And at the point of overemphasizing, the higher the potential investment return, the higher is the risk.<sup>5</sup>”

Just see the value of the Philippine Peso through time as shown in the following figure:

**Figure 7**



Based on data from the National Statistics Office (NSO), a Peso in the year 2000 would only be worth Php0.57 by the end of 2012 in the National Capital Region (NCR) and Php0.56 for the Philippines as a whole. In other words, if Php1.00 could buy one pandesal in the year 2000, it could only buy 57% of that same pandesal in the year 2012 in the NCR.

<sup>5</sup> Please note that only the first year of college tuition was considered in the discussion. Separate investments and computations for tuition fees for the other years of college education.

## Ponzi Schemes and Pyramiding

*Aling Lorna* asks Harry about investment schemes with unusually high returns being offered to her cousin, Esther, a small grocery store owner who already fell victim to the scheme perpetrated by the Ponzi Scheme<sup>6</sup>, which is now under a permanent cease and desist order from the Securities and Exchange Commission.

Harry says, “Time and again, people have been duped by scam artists with the lure of high and guaranteed returns. For the person who is aware of his weakness in decision-making, he would question the promised high return especially if there are no possible outlets to earn more than such returns. Why more? If the operation were legitimate, it would need to earn a profit for itself on top of the return or interest to be paid to the investors.”

“So how is it possible to run such scams?”, asks *Mang Domeng*.

Harry replies, “These operations just pay the high returns of their present investors from the money of future investors. That is why it is critical to such scams that they are able to sell to new investors. This scam is called *Ponzi scheme*. Ponzi scheme artists will even cite some elaborate investing strategies to make the operation look more legitimate and make people stop questioning the operation for fear of looking stupid.”

“I knew my rule of first knowing more about a certain investment was the right way!”, exclaims *Mang Domeng*. Harry agrees.

“In addition,” says Harry, “pyramiding may be applied on top of Ponzi schemes. *Pyramiding* involves an operation where people are invited to become members of a business group and are instructed to recruit new members to realize higher earnings. Pyramiding bastardizes the legitimate marketing strategy called *networking*. The Securities and Exchange Commission declared that an operation that focuses on recruitment and not the actual sale of a product or service is a pyramiding scam and therefore illegal.”

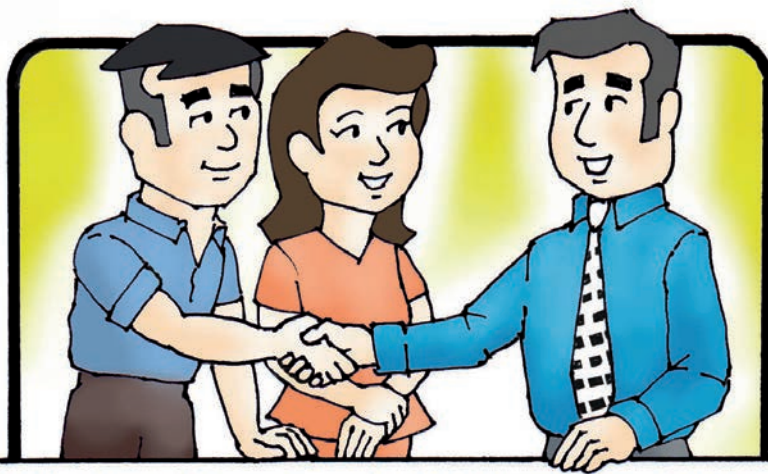
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<sup>6</sup> The SEC ordered a permanent cease and desist order on the said Ponzi scheme, which was found to be selling unregistered securities with unusually high income/dividend rates ranging from 3% to 5.5% per month over a 6-month to 1-year placement term.

*Mang Domeng* relates the story of other OFWs in his workplace who were victimized by a Ponzi scam promising high returns only to lose everything when the Ponzi collapsed just a few years later. Other OFWs had their family members joining pyramiding schemes only to see their investment in such schemes go down the drain when the pyramid could not find new distributors anymore to pay the supposed returns of earlier ones.

But before the couple leaves, Harry gives them one final lesson.

“You know *Mang Domeng* and *Aling Lorna*,” says Harry, “sometimes fraud is committed by certain erring officers and employees of a bank without the



Both *Mang Domeng* and *Aling Lorna* thank Harry for the wealth of information. The couple feels more equipped now to invest their hard-earned money. *Aling Lorna* also promises to share her new knowledge with her friends.

bank as an institution initially knowing. Such erring officers and employees would make fake certificates of time deposit to get unsuspecting depositors to place their money. What really happens is that the depositors' funds merely enter the pockets of these erring employees and not the vaults of the bank. That is why it would be best to get validation of your time deposit from other people within the bank. A statement of account generated by a bank's central office, either in printed form or online via the Internet, is one way as it would be difficult to be conniving with many people within a bank."

"Wow, thank you again Harry. You have truly been a big help to us," says *Mang Domeng*.

## Financial Expert's Corner

*The term Ponzi was adapted from the name Charles A. Ponzi. Charles Ponzi did not invent the scheme. However, he was the first person to dupe a great many people using the scheme in the United States.*

*Charles Ponzi was surely not the last individual to fool people into giving up their hard-earned money for the false promise of high short-term returns. In the Philippines, there have also been many Ponzi schemes that duped people out of billions of Pesos. And whatever the place, Ponzi and Pyramiding scammers are sure to prey on people's over-reliance on heuristics.*

*Ways to overcome these promises of high short-term returns are:*

- 1. Be aware of the propensity to be blinded by high short-term returns and always remember the unbreakable law of investing (high potential investment return equals high risk). The better way to make money is through moderate and sustainable profits than from one-time, big-time gains.*
- 2. Check the registration of the securities being offered with the Securities and Exchange Commission (SEC). It is not enough that a company is registered with the SEC as a corporation. This is called the primary registration. Selling the service of managing other people's money, including any promise of a return, requires a secondary license with the SEC. Depending on the type of product or service being sold, there may be other licenses to be secured from the Bangko Sentral ng Pilipinas or the Insurance Commission.*
- 3. Compare the promised high short-term returns with what banks are currently offering for investments with similar terms. If it is too good to be true, then it cannot be a legitimate operation.*

## More Than Just Interest Rates

1. Heuristics are nothing more than educated guesses, rules of thumb, intuitive judgments and plain common sense. Heuristics are necessary for people to get through the myriad of decisions they have to make in a day.
2. The future value of any investment is dependent on the
  - a. size of the principal (re-)invested;
  - b. level of interest to be earned; and
  - c. time money is left to earn
3. The ideal situation is that financial goals are fixed. And with fixed financial goals, the investor can just play around with the amount of money he (re-)invests, the rate at which he makes his money earn and the time he allows his money to earn. And at the risk of overemphasizing, the higher the potential investment return, the higher the risk.
4. Operations that get the promised high short-term returns from the investors' own money and from investments of succeeding investors are called **Ponzi schemes**.
5. Pyramiding involves an operation where people are invited to become members in a business group and are instructed to recruit new members to realize higher earnings.
6. Ways to overcome these promises of high short-term returns are to:
  - a. be aware of the propensity to be blinded by high short-term returns;
  - b. check the registration of the securities being offered with the Securities and Exchange Commission; and
  - c. compare the promised high short-term returns with what banks currently offer.



## Your Personal Notes

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