

# Have You Ever Thought of Being An Economist?



By  
**Rania Soliman**

**Introductory Booklet Series  
(Issue No. 11)**

**Intended for the Young Generation  
in the Arab Region**





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In the Arab Region



By: Rania Soliman  
Arab Monetary Fund  
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The publication is intended for the benefit of the young generation between the ages of 11 to 18 who have limited prior knowledge of economics and who are willing to discover new professions that they may consider in their future career.

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## 1. Foreword

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This is a book that introduces the young generation to the basics of economics, but more so, it shares lessons learnt from them in motivation to acquire knowledge.

**“Talent can be acquired”** on equal footing with learning and knowledge. These words changed my life. I never used to believe that words could change my life as people used to say. There are moments in life that we never forget. We remember these moments vividly because they have a profound effect on how we view the world, ourselves, and how we treat life.

I can point to some people and events that affected me the most. Mariam, my son’s cousin is one of them; The recent encounter with her and seeing how she approached the learning about economics in pursuit of her university education choices, is yet another event that has really reinforced the belief that talent can be acquired.

But talent without effort and dynamism coupled with the eagerness to achieve, does not help you much in reaching your goals.

Mariam has shown me that however less privileged you may be, as long as you are sound, you can find ways to acquire and achieve. It is true that we are not all born with talent, but it can be cultivated with passion, motivation, patience and practice.

In addressing the young generation to share with them a personal experience on why we should never lose hope. Rather, we have to make every effort and pursue potential routes however divergent that may be to make our dreams come true.

This book is not intended to advocate studying economics, but to educate, presenting a modest contribution in support of all the young generation that are seeking to learn and realize their dreams.

Those young thinking of university programs to pursue in economics may find this book useful.

## **2. Chatting About Economics**

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It's always a good time to chat with your young about their interests, concerns, expectations, and particularly their university education.

Chatting about studying economics is particularly challenging. Expect to be bombarded with questions, the young generation seek straight forward discussions and responses on.

Youssef, my son, though in his early teens, has already been talked to about various studies to pursue, including the subject of economics. A subject that has captured his attention, but he particularly knew nothing about.

He was trying to test my knowledge in the subject, repeating what he seems to have been hearing around at school: It simply starts with choices. Every day, the young make choices, which shoes to wear, which TV show to watch or what to eat for dinner. When a choice is made it indicates that an option was more important than the other options not chosen.

Which would you prefer - a peanut butter and chocolate sandwich or a vegetable and tuna wrap? There is no right or wrong answer, but there is a certain perception or view that one option will make you happier.

Youssef asked, "So, is economics the study of choices?" Yes, I responded. Considering that people cannot have everything they need or want at the same time.

The world around us is greatly shaped by the choices we make and can be the subject of fun conversations with the younger generation. Have you ever discussed with your young why a pair of sneakers from a popular brand cost more than a similar pair of sneakers from a less known brand? This can be a conversation starter about demand and supply.

The availability and price of an item in the market is not simply determined at random but rather determined as a result of supply by manufacturer and demand by the consumer. If a factory produces 100 pairs of sneakers every week, and every week 90 pairs of sneakers are sold leaving 10 pairs unsold, this implies the supply of sneakers is a 100 and the demand is 90 leaving an oversupply of 10.

### **So! What does that mean?**

Acting rationally, the factory needs to be asking itself what measures it takes to ensure that it makes the best income from selling all the sneakers it produces. The factory will consider choices, either produce 90 pairs of sneakers only to sell at the same price or produces the 100 pairs of sneakers or even more, but then it may have to offer them at a lower price so more people could afford to buy them.

That is just how easy it is to chat with the young generation about choices.

Youssef was excited to be spending the weekend with his cousins, we were equally pleased. His cousins Mariam and Yahya were coming over from Dubai, just an hour drive from where we live in Abu Dhabi at aunt Rawya's house, where they will be sleeping over.



It was springtime and Youssef's school were organizing a fair called "Meet Yourself in the Future", which it holds regularly to introduce students to potential university education programs and professions. Students were also encouraged to invite their friends and relatives to join them in this big event.

The "Meet yourself in the future" fair designed to help the young generation experience what it would be like to fill the shoes of their favorite professionals. A chemist, an engineer, a medical doctor etc... representatives from some professions are usually called upon to



share their experiences and explain the nature of their professions. The invited professionals are expected to have some presentations and respond to questions.

Mariam found out about the fair before coming over from Dubai and planned to stay at her aunt Rawya's house to attend the fair with her brother Yahya and Cousin Youssef.

Over dinner and while pouring the soup for Mariam, aunt Rawya could feel the excitement of the cousins being together, but most noticeable was Mariam's talking about the fair. "I feel you are so excited to attend this fair, Mariam", said aunt Rawya.

Mariam responded with a smile, "Honestly, yes I am, because it is an opportunity for me to learn as much as I can about the possible chances for my academic study. You know aunty that I have to start applying to universities soon, and I have not made my mind yet about what to study. I do not want to be late in applying or lose time and money changing studies later. I strongly feel that the more I know about university subjects, the better I am prepared to decide."

"You have lots of options. I would suggest you benefit from your math talent to study something like engineering, aeronautics, physics, or computer sciences", aunt Rawya said.

"But I am interested to know more about social studies such as economics, I hear it is interesting and paves the way for many job opportunities" said Mariam.

"Wow, it's so impressive Mariam, it's so complicated, isn't it? What is this study anyway? What would your job be, or do once you graduate?", Yahya said.

Mariam said: "I do not know much about economics, but I do not feel it is very complicated. You know, I like helping in our society, and I feel this is a particularly good chance for me to know more about people's needs and wants. My understanding is that the study of the economy is called economics, and a person who studies economics is called economist". She tipped her imaginary eyeglasses on after

saying this, everyone giggled. Yehya said, “I will definitely be enjoying being with you tomorrow in the Economics booth, I am interested to know more about this topic too, who knows I may be considering it in two years when I will start applying for university and I want also to choose and decide”.

“Knock knock, I am here as well, I will join you, big people, I will be in two years in your place Yahya”, Youssef said, while standing beside seated Yahya to show him that he is the same height as him. The loud laughter filled the room.

"Good luck for all of you in the fair tomorrow. Now you need to have rest and sleep early", said Aunt Rawya.

Mariam is a very smart, energetic and passionate girl. She loves her family; her black hair is shiny like a trophy. She is sixteen years old who challenges herself in doing everything by herself, as much as she can, minding her physical handicap, as she was paralyzed and was confined to be using a wheelchair after a car accident few years back. Mariam is extremely helpful to everyone and like many youngsters in her age, she loves fashion and cherish her friendships. You feel the world is happy around her. Her big heart moves her body, she taught everyone how to move with love.

At school, Mariam was all the time “Best Student of the Year’s” title. Besides her studies, she was always outgoing and eager to learn about life and contribute to her community, this is probably why she felt for economics.

Not like other girls in her age, Mariam had big dreams to make a difference at her university studies and thereafter.

The next morning, Youssef woke up early and rushed to wake up Mariam and Yahya to take them to the school fair. They were amongst the early students to arrive.

The fair was organized by Youssef's school but the whole neighboring community was encouraged to visit it.

Mariam registered to visit the economics and engineering booth. So did

Yahya and Youssef, who were as excited to be in the fair. Soon the seats were filled in the economics booth, and the 10 am presentation on economics started.



### 3. Defining Economics

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The presenter was Mr. Nabil Najjar, who holds a PhD in economics, in his early forties, well dressed, serious, filled the booth with his charming smile and welcoming words. He welcomed the audience and was keen on drawing their attention by thanking them for coming for the session where he was going to be talking about economy.



“This session will be taking about twenty minutes and then we can discuss your enquiries”, Mr. Nabil said. So, let us start first with the basic definition of economics? What is economics? Well, it might be easier to term it what economics isn’t.

Economics **is not** the study of money or getting rich, although understanding economics can help with that. Economics **is not** the study of the stock market. Economics **is not** primarily about men in bow - ties forecasting what will happen in a given market or the overall economy. Actually, few economists do that, but that is not the main focus of economics.

Economics is the study of people and choices. The famous economist **Alfred Marshall** (1842-1924) whose book “Principles of Economics” was the dominant economic textbook in England for many years, defined economics as “A study of men and women in normal business life. It enquires how they earn their income and how they use it. So, on the one hand it is the study of wealth and on the other hand a study of men and women”.

I will talk more about what economics is. A 17-year-old to be deciding whether to work or go to university and how this can affect his/her future income, this is economics. The company that decides whether to sell smartphones or tablets and how that is affected by

what consumers want to buy falls under economics. The Government deciding whether to cut its spending when a period of reduced economic activity happens and if it is worth borrowing, this is economics.

Despite what you may think, economics is neither dull nor boring. Somehow yes, but not all like that, I promise! (*laughed the cousins and the audience*).

Mr. Nabil continued: Understanding economics can always change the way you think and solve problems. For the next twenty minutes I will attempt to share with you concepts that may help you for more understanding to the world and make it a better place. No matter who you are, or what you do, you will use economics. You are using economics now, you chose to walk in and listen to what I am saying, that means you feel that the benefit is greater than the cost, you may be thinking there is no cost here, but certainly there is. You could have fun with friends or watch a movie instead. The cost of listening to me is the things you do not do instead, the value of the other alternative. Economists define it as your opportunity cost. If you are still here listening to me. That means you think it is the best value of your time, or you will not be listening to me now.

We have just covered the most two important assumptions in economics. First, the idea of scarcity. People have unlimited desires but limited resources. Second, everything has a cost. And if these assumptions are true, then we need a way to analyze our choices and make the most of our limited resources. That is economics.

But let us get back to the idea of benefits and costs. Hundreds of people die each year in car accidents in a certain community. Is there a way to ensure that a traffic accident never occurs again? Yes! We can smash all the cars, close all the roads, and force everyone to walk. That would solve the car accident problem. But this solution is absurd because the cost clearly outweighs the benefit. Traffic accidents are tragic, but we do not prevent them at all costs. You know there are

risks to driving, that you could be in a car accident, but you still drive.

### **Why?**

Who is going to walk home for a long-distance carrying groceries in extremely difficult weather conditions? Faced with the risk of a minimal chance of dying in a car accident? The choice is sometimes obvious, but still the choice is there.



The point is, individuals, companies and countries cannot have everything, they are forced to weigh the benefits and costs of the choices they take and make decisions that they make.

Now after this short presentation, you can understand the definition of economics as; the study of how people, businesses, societies, or nations deal with scarcity.

## 4. What Economists Do?

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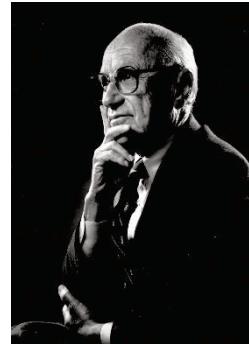
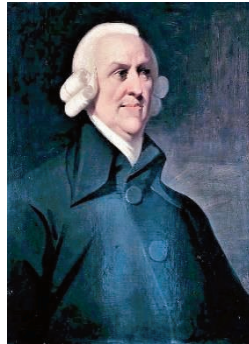
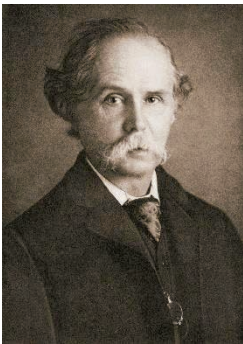
After presenting the definition of economics, Mr. Nabil said with a sarcastic smile: What if you ask what Economists do? If you ask ten different economists what they do, you may receive ten unexpected different responses, the most interesting would be: **Economics is what Economists do.** *Loud laughs filled the place from the Youngs.*

“Well, I am going to share with you my personal views on that”, said Mr. Nabil.

Economists study how and why societies, nations, business and people distribute resources, and the associate implications for human wellbeing. That means we study how people deal with scarcity and how we distribute resources.

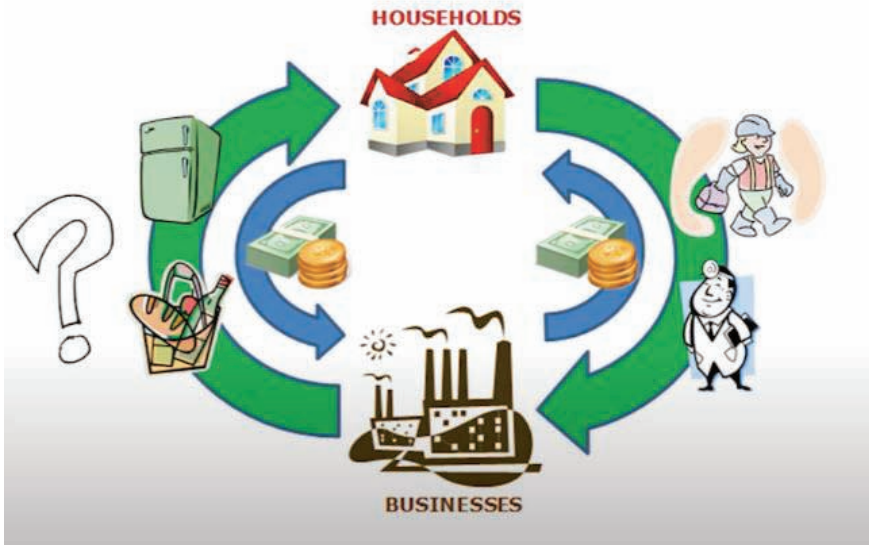
Mr. Nabil shared pictures of three men on the screen for the audience asking: “who are these characters here?”

On the left, **Alfred Marshall** is sort of the father of the supply and



demand model, the market model, he wrote in the late 1800s. In the middle is **Adam Smith** late 1700s, he looked at how rational self-interest sort or promotes social well interest under certain set of conditions. On the right is **Milton Friedman**, perhaps the 20<sup>th</sup> century’s most vocal advocate for free markets.

Mr. Nabil then presented a screen trying to help the audience understand economics, calling it the circular flow.



We have here a diagram that shows certain economics basis, whereby, households providing labor to businesses in exchange for incomes and wages. Business in turn provide goods and services and households pay for those goods and services. So, resources moving around in an economy, and everybody is motivated by incentives, workers have an incentive to do good work, so they get higher pay, businesses have incentives to provide quality products at low costs so that they earn higher profits. But here there seems to be something missing in that diagram, right?

**How does the balancing act take place? What is the system that maintains the flow of resources across all the constituents of any society?**

**How do Economists contribute?** Math, statistics, data, reasoning. And many tools and theories are used. But let us simplify the explanation. A lot of tools probably the same set of tools that most of you in this room use.



Economists try to provide information that will be useful for decision-makers:

What is the nature of cause-and-effect? What would happen if we look at cause and effect?

What are the costs and benefits of an action (or inaction)?

What is the best way to accomplish a particular goal?

Economists use theory, data, math and statistics to help solve real-world problems, to make the world better place for living to help solve problems, that is what we do.

When economists analyze a situation, they tend to do so without personal opinion, with a cold-hearted search for truth, we do not come in typically as advocates, we are analysts.

## 5. Is Economics a Science?

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Mr. Nabil: “I receive this question often, is economics a science? I do not know actually, it is yes and no. if you read what **Karl Popper** said about economics, “Science can be viewed as the study of things that can be proven false (even if the likelihood is very small)”, Science is the study of things that can be falsified, so are we trying to do this? Yes. Do we follow the scientific method? Yes, economists use theory to examine how facts fit together, we make observations about the way the world works, theorize, collect data to test the theory, then we revisit the theory based on the results. But unlike some natural sciences, like for example physics, economists do not have controlled experiments, because it is hard to control everything together. So, we use the facts that are given to us, that are available and rely on statistical analysis to draw conclusions or inferences”.

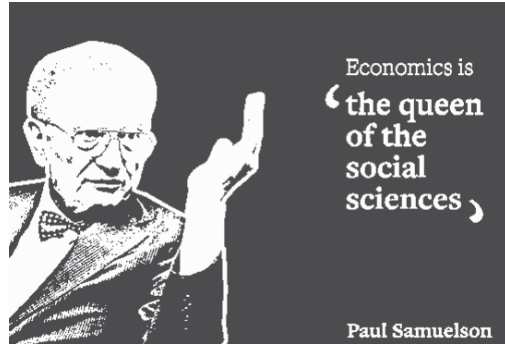
**“The problems that we want economists to help solve, are like predicting how leaves will fall on a windy day than predicting how objects will fall in a vacuum”**

*Daniel Hausman, NYT, 2015.*



Mr. Nabil continued: “I like that analogy a lot, it is messy, there are lots of factors that play, we analyze a subset of those factors. We are not always going to get it right. So, if economics is a science it is an inexact one.”

Most of economists do think of economics as a science. They say, the economic world is a predictable system just like the natural world. This is because it is governed by reliable, measurable motives, which can be treated as causes.



This means that the test of successful economic model is its predictive power. It is because of its ability to make quantitative predictions that **Paul Samuelson** called economics “the queen of the social sciences.” Numbers are its tools.

Most of today’s economics is based on mathematics. That is, it tells its story of equations and statistics. This is because most economists think that reality can only be precisely stated in mathematical form. This cuts economics off from most people’s understanding. Mainstream economists believe that a story which cannot be told in maths, is not part of economics, but of some other disciplines, like history, sociology or literature. Maths enables economics to look like science. **But again, is it actually a science? If so, what kind of science is it?** You can put on the uniform of a policeman, but does that make you a policeman?

In other word, equilibrium is crucial to the claim of economics to be science, like gravity in the natural sciences. But why should economic system tend toward



equilibrium? I mean, what is the equivalent of gravity that keeps market in order? When we look into that, we find many difficulties because it is not clear. We understand that it is a force of nature in the natural sciences, but we are not absolutely sure what is the equivalent

is in economics, but nevertheless that is the claim of economics, that it is governed by laws which are essentially similar to the laws of gravity in physics.

The main idea economics shares with the natural sciences, is the idea of equilibrium, if equilibrium is a groundless idea, then economics claim to be a science would not be true. Equilibrium is absolutely crucial to economics' claim to be a hard science.

The economist **Schumpeter** described equilibrium as the “**magna carta of economic theory.**” The general idea is, that there exist forces in nature which balance each other and any disturbance to the balance will set up an opposing force to rebalance the system. It comes out of natural science.

The same as **Isaac Newton** when described the force of gravity as the field of force which pulls matter together, no one has ever seen gravity.

Mainstream, economists believe that the economic world exhibits something like the principal of gravity. As the economist **Alfred Marshall** wrote “if a stone hanging by a string is displaced from an equilibrium position, the force of gravity will at one tend to bring it back to its equilibrium position.” He wrote that about economics and he was using the analogy of the natural world to explain the concept of equilibrium in economics.

Economics equilibrium is secured by the forces of supply and demand. The quantity of a good which will be demanded, and the quantity supplied at different prices.

If price of something goes up, the quantity sold goes down. If price goes down and the quantity sold goes up, that seems straightforward and probably quite reasonable you might think in a single market in a local place. But economists so extended the notion to the equilibrium of the whole system of independent markets and that is generally equilibrium.

## 6. What Can Economists Study?

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Mariam was so much taken by the explanations of Mr. Nabil, and could not think of anything but what her future job would look like if she studies economics?

She raised her hand and asked: “what do economists really do and what jobs they fulfill? Mr. Nabil responded: “Anything that involves decision- making. Anything that involves choices and tradeoffs.”

Such could be at a high level which is known as Macroeconomics, or at the detailed level which is known as Microeconomics. **Macroeconomics** is the study of the entire economy. Broadly define economic variables, macroeconomics is concerned with relationships the overall price level, total output and unemployment. Macroeconomists might attempt to **forecast** the effects of large-scale unemployment, economic growth, inflation, productivity, and investments. Or we can say, what is the economy going to be like? What is going to happen in the regional economy next year? What is going to happen to the national economy next year? Or even the global economy?

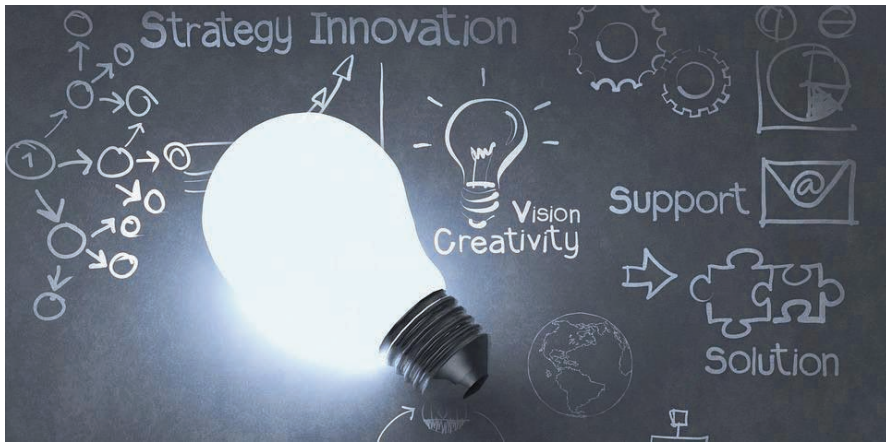
**Microeconomics** is the study of the choices and behaviors of individual consumer and business.

Microeconomists in the private sector can help companies maximize profits, reduce costs, or set prices. Microeconomists in Public sector can analyze the costs and benefits of government programs or policies (e.g., transportation, health care, environment).

If the economy is a forest then the **macroeconomist** is flying over the forest in an airplane, getting sense of the big picture, what is the whole ecosystem looks like. But the **microeconomist** is the one walking through the forest, looking at individual interactions between things in the forest.

### What kind of skills do economist use?

- Critical thinking
- Mathematics
- Statistics
- Data acquisition and analysis
- Technical software
- Writing, reporting and communication



### Where do economist work?

Certain studies have shown that economics is one of the most widely offered study programs in the world universities. Also, various studies have concluded that about half of all the economic degree holders work for government, other areas are in private banking and investments, consulting firms, academia, and international and development organizations.

### Is everyone that studies economics an economist?

Well, this is not an easy question, but as a general response, no, economists need to undergo research work and post graduate studies applying various mathematical and statistical analysis, you do not get to do economics research until your senior year, when you get into more focused and analytical models, statistics and econometrics.

### What do economists really try to achieve?

The following economic issues are viewed to be amongst the key concerns that countries try to address, and economist try to solve and provide advice on, put in simple statements for every person to understand, particularly the younger generation who is being challenged day after day;

- How to provide jobs to people to reduce unemployment



- What economic sectors should the country support?
- What social sectors should receive more funding from government? Health or education for example.
- How to address competition from other countries in services, products, and even education? Is it by improving quality and lowering prices or by putting import taxes? Or both or other?
- How to set the minimum wages.
- What to do in order to obtain currencies to pay for imports, particularly when the currency of a country is declining in value and sometimes it may not be convertible?
- What basic products should the government subsidize, meaning to bring prices down to affordable levels for a large portion of the population? Is it wheat? Or sugar? Or fuel? Or others?



- Why trade deficit has taken place, measuring why are we importing than exporting in general or specific products or services? And what do we do about that?
- Should the government borrow money? How much? In which currencies? How to pay back?
- How should governments plan the future wellbeing of the people?
- What to do to attempt money from foreign countries to develop certain economic sectors such as the roads infrastructure (this is called foreign direct investment).
- Should the government interfere when prices are increasing (this is called inflation) and how and to which extent?
- What would be the country's longer-term strategic view on certain economic issues, such as; would we be the number one country in that case? Or the best place for tourism? Or the place to attract students from all over the world? Or to have the quality products and many other questions that drives the government actions in the future.
- When people have money at the bank but are not spending. Economists are asked to provide advise on how to induce spending to move the market.
- What would the government do to reduce the gap between spending and revenues? Shall it be by increasing taxes? By reducing spending on certain projects? By reducing government employees? Or many other variables.



Mariam felt more and more that economics is what she truly believes would be her passion because it deals with people's lives and wellbeing. She could not but say it out loud, Yes! This is what I want to do. I want to help my society to be well. I want to be an economist!



Mr. Nabil smiled and said, “sure, I am happy you do. It may also be really enjoyable to study economics because you will have the chance to learn many theories in economics, get to know the interesting works of well-known economists, but most importantly you will be able to explore and research many social issues by yourself.

“Yes, yes, yes” Mariam said, “I think I am good in math and I like to apply this in my future studying and work later on, I have critical mind set up, so that may make me a good economist.”

Mr. Nabil was pleasantly surprised as Mariam kept in asking him questions on economics till the end of the session time.

## 7. What Is Econometrics?

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The Youngs were so loud and noisy while leaving the booth, some were thanking Mr. Nabil, some else were excited and talking about their insistence to be an economist but Mariam was silent while leaving, her mind was working in full speed that silence is hiding it.

Yahya confessed that he did not understand much of what was said, he wished Mariam good luck. Youssef was observing Mariam in silence. They all went out to the cafeteria.

“Now I am more confused” said Mariam. I thought I understood a bit about economics but now I feel I need to learn more particularly if I am aiming to be a distinguished economist.”

“Why? isn’t it what you were looking for? You were so excited about studying economics and coming here to learn more about it” said Yahya.

Mariam responded, “I thought it will fulfill my hopes for using my talent in Math as well, it’s all researches and talks, couldn’t you feel that?”

“What’s up Mariam, I was watching you most of the time, you were so focused and seemed interested in what you were listening” Youssef said.

“Guys, of course I am very interested in economics; but my interest now has taken another dimension. I wish I could do math and calculate all the time” all were laughing on what Mariam said.

“Look who is there?” Youssef pointed stealthily to Mr. Nabil.

“let’s go ask him about what you were saying Mariam” Yahya suggested, “Maybe he has a good suggestion for you”.

The guys walked through the tables and approached Mr. Nabil who was surrounded by Youngs asking him about his presentation.

“Hi Mr. Nabil, excuse us”. Yahya said.

“It’s ok guys, how was the session, did you benefit from it?” said Mr. Nabil.

“It was very interesting.” Mariam responded.

“But Mariam has a concern” spontaneously said Youssef.

“Good to know you guys, I know now Mariam” then he turned to Yahya.

“I am Yahya in grade ten, I am the brother of Mariam and he is Youssef our cousin who brought us here” Yahya said with a large smile.

Youssef said: “I am in grade eight in this school, but Mariam and Yahya are coming from Dubai to attend the fair”.

Mariam said addressing Mr. Nabil: “Yes, I am the one who is late to apply for university so far, I am approaching the end of this school year and have not made my mind yet, I should have decided from last year already”.

“It’s never late, as long as you want to make the right decision, it took me long time also to decide how to continue in my studies, it is not easy to decide what you are going to spend your life doing.” Mr. Nabil said. “For me studying economics was by chance. I was late in deciding what to apply for and the university in my hometown had no vacant places in the faculty of economics, but then I liked the subject so much and I continued my journey in econometrics now”.

“So, you are not an economist?” Youssef said.

Mr. Nabil responded with a smile and said: “I am an economist all the way. Econometrics support economists in doing their work and provides certain advanced skills and analyzing and interpreting data, but it all works together.

Mr. Nabil attempted to explain the relationship between econometrics and economics, “Econometrics literally means 'economic measurement'. It is a combination of mathematical economics, statistics, economic statistics and economic theory”

Mr. Nabil continued, “econometrics helps us to confront theory with real world data, it is a very interesting subject which may be defined as the social science in which the tools of economic theory, mathematics and statistical inference are applied to the analysis of economic phenomena.

Econometrics involves applications of mathematics, statistical methods, and computer science. It aims to developing skills to analyze data and derive useful information. Econometrics is the way that economists work with data.”

**“Is econometrics studied as a separate discipline?”** Mariam asked.

Mr. Nabil was keen on explaining the relationship and the main objective is to fill gaps between “being a student of economics” and “being a practicing economist”.

First, Economic theory is mostly qualitative in nature that is mostly theoretical. Law of Demand shows an inverse relationship between the price and quantity demanded of that commodity. But there is no numerical measure of the relationship, it is the help of economic theory we know that there exists a negative relationship between price and quantity, but we do not know how much the quantity will go up or down as a result of certain change in the price of the commodity.



Econometrics is all about answering the question “*how much*”. This is the first fact that tells us that econometrics helps in giving empirical content to the economic theory.

It is the job of an econometrician to provide numerical estimates or to give empirical content to the economic theory.

Second, Mathematical economics express economic theory in mathematical form that is equations, without regard to measurability or empirical verification of the theory. So, in mathematical economics, we do not have any empirical verification.

Third, economic statistics is concerned with collecting, processing and presenting economic data in the forms of charts and tables. The data collected constitutes the raw data for econometric work, but the economic statisticians are not concerned with using the data to test economic theories, who does that? The one who does that is an econometrician.

“Why we need to study econometrics and what is its importance?” Mariam asked.

Mr. Nabil explained further that, “econometrics is a part of the university curriculum, and adds value to in many real-life applications.

A large part of econometrics creates simple models and images in the real world. These models are used to predict what will happen in the real world. An example of econometrics is looking at the houses’ prices in a city. The economist may try to look at the city's housing prices and indicate that houses near the market cost more. The economist could then say that if a new market were created in another part of the city, houses’ prices could rise. Applying econometrics adds value to the overall vision by trying to quantify the price change.”

“I am more interested in studying econometrics. I need to learn more about it to set up my mind” Mariam said with a smile.

Mr. Nabil replied, “I can help you writing some names that you may be interested to read about in the coming days. The first known use of the term "econometrics" (in cognate form) was by the Polish economist **Pawel Ciompa** in 1910.

**Jan Tinbergen** (1903-1994) is considered by many to be one of the founding fathers of econometrics.

**Ragnar Frisch** (1895-1973) is credited with coining the term “Econometrics” in the sense in which it is used today, and he is one of the founders of the society, according to Frisch econometrics aims at giving empirical content to economic relationships. The three key

ingredients are economic theory, economic data, and statistical methods.”

Mariam took the small note from Mr. Nabil as if she took her ticket to the bright waiting future.

They all bid farewell Mr. Nabil and waved with very thankful and grateful words.

## **8. Find your way!**

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A long day passed, and it was time to return home, Mariam, Yahya and Youssef were feeling hungry thinking of the delicious dishes that Aunt Rawya had promised to cook for them that day.

They were all talking and laughing while leaving the school. Mariam suddenly turned silent. Her silence was not because she was tired, but because she was thinking what to do next, econometrics is now on her mind more than anything.

Before getting in Aunt Rawya's car heading back home, Youssef asked Mariam about what she was thinking? She smiled to him and moved slowly towards the car in silence. Youssef continued, "I know now what you chose, I bet you are thinking of econometrics.

Talking about the basics of econometrics deserves a book on its own. Why not, Mariam could join in writing it, another talent one could acquire.

## 9. Afterword

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After Pursuing an economics course, young generation graduate with strong analytical and problem-solving skills. They also obtain the commercial acuity necessary to succeed in this profession. Therefore, it is not surprising that the economics is required by professionals in almost all industries, not only business.

Young generation who will consider economics course resulted in getting:

Various programs: The fact that economics is part of almost every aspect of everyday life explains why most universities offer different units to reflect this. From the environmental economy to economics policy, everything can be part of the economy certificate.

Focus on real life: The focus of economics is to learn from real case studies. As such, understanding how a concept or theory can convey a real-life message is easy in economics.

**You are a unique and scarce resource with tremendous value –  
make choices that serve you.**





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