I, Mechanical Pencil

Steven Kates
Introduction

Many years ago, one of my early ancestors wrote his own life story in a wonderful autobiographical tale titled *I, Pencil*. He told the story of how he came to be, how he had been the result of thousands of many independent decisions made all over the world by many tens of thousands of individuals. Their collective actions explained how he came to be the pencil he was.

His aim was to explain why socialism doesn’t work. Whatever name you associate the idea of ‘socialism’ with — whether it is ‘democratic’, ‘scientific’, ‘utopian’ or something else — socialism inevitably brings poverty and privation to the vast majority who are robbed of their political freedom as well. His aim had been to explain how our free market economic system brings us both freedom and prosperity; how a market economy is indispensable if we are to live our lives as we wish and in our own way, while also becoming more prosperous with each passing year.

Yet I fear his message has been lost in the modern world; in part because we live in different times with different kinds of problems, but also because many fail to separate out the political side of socialism from the economic. Socialist economies are always run from the centre and inevitably become a dictatorship with democratic constraints on the government crushed by those who take control. That is the certainty of it. Political freedom disappears when a socialist government takes over. The loss of freedom is straightforward and unmistakeable. There are no exceptions.

But hidden away beneath the political dimension are the reasons behind the economic catastrophe that follows the introduction of a socialist regime. These outcomes are visible at every turn. There is no disguising the massive reductions in income and personal wealth that are inflicted upon virtually everyone in a socialist economy, other than, of course, those who run the country. Everyone sees it, but virtually no one understands why so many things go so wrong everywhere within the economy and almost all at once.

I have therefore set out to explain why this happens, because we take the prosperity we have so much for granted. We now live in far and away the richest communities that have ever existed. Even the poor are only relatively poor, and live better than all but the royalty of earlier ages — in fact, probably even better than royalty then did as well. I won’t say things are perfect or could not be improved. But I will say that any solution to our problems that tries to make things better by introducing a socialist program of some kind is not only doomed to failure but is absolutely certain to make conditions far worse. Of this, there should be no doubt whatsoever.

Political oppression is easy to see, but economic oppression is much more difficult to identify and understand. Anybody can see without difficulty that socialist economies are inevitably poor, but many people need a bit of instruction to understand why that is. That is the reason I have written this, to continue the story my ancestor began those many years ago... to explain the causes behind the economic nightmare of socialism that accompanies the political oppression that is its twin.
The Story *I, Pencil* Told

His story began this way.

“*I am a lead pencil — the ordinary wooden pencil familiar to all boys and girls and adults who can read and write.*

“*Writing is both my vocation and my avocation; that’s all I do. You may wonder why I should write a genealogy. Well, to begin with, my story is interesting. And, next, I am a mystery — more so than a tree or a sunset or even a flash of lightning. But, sadly, I am taken for granted by those who use me, as if I were a mere incident and without background. This supercilious attitude relegates me to the level of the commonplace. This is a species of the grievous error in which mankind cannot too long persist without peril.*”

And then he said this, which was both absolutely true but completely surprising to almost everyone who read what he wrote.

“*I, Pencil, simple though I appear to be, merit your wonder and awe, a claim I shall attempt to prove. In fact, if you can understand me — no, that’s too much to ask of anyone — if you can become aware of the miraculousness which I symbolize, you can help save the freedom mankind is so unhappily losing. I have a profound lesson to teach. And I can teach this lesson better than can an automobile or an airplane or a mechanical dishwasher because — well, because I am seemingly so simple.*

“Simple? Yet, not a single person on the face of earth knows how to make me.”

No one on earth knew how to make a pencil? How nonsensical could such a statement be when there were billions of pencils all across the world then, just as there are today. Yet he told the absolute truth. And here was his point.

A pencil, a simple pencil as these things used to be, with a piece of lead surrounded by wood and an eraser at one end held on by a small strip of metal, is to all appearances really hardly anything at all. As he said:

“*Pick me up and look me over. What do you see? Not much meets the eye — there’s some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser.*”

But then he went on to demonstrate that this apparently simple object is actually a complex piece of technology that requires the combined efforts of tens of thousands of individuals, producing hundreds of kinds of output in thousands of different locations all across the world to finally end up with this writing instrument that can be found nearly every place you go.

Just take this description of only one of the components.

“*My ‘lead’ itself — it contains no lead at all — is complex. The graphite is mined in Ceylon [Sri Lanka today]. Consider these miners and those who make their many tools and the makers of the paper sacks in which the graphite is shipped and those who make the string that ties the sacks and those who put them aboard ships and those who make the ships. Even the lighthouse keepers along the way assisted in my birth — and the harbor pilots.*

“*The graphite is mixed with clay from Mississippi in which ammonium hydroxide is used in the refining process. Then wetting agents are added such as sulfonated tallow — animal fats chemically reacted with sulfuric acid. After passing through numerous machines, the mixture finally appears as endless extrusions — as from a sausage grinder — cut to size, dried, and baked for several hours at 1,850 degrees Fahrenheit. To increase their strength and smoothness the leads are then treated with a hot mixture which includes candelilla wax from Mexico, paraffin wax, and hydrogenated natural fats.*”

He then went on to explain all of the work around the world to shape the wood, the metal, the eraser and the printing technology in just the right way so that they could all be brought together to produce a pencil. So the question he asked was how could all this be done? And this is what he said.

“*Here is an astounding fact: Neither the worker in the oil field nor the chemist nor the digger of graphite or clay nor any who mans or makes the ships or trains or trucks nor the one who runs the machine that does the knurling on my bit of metal nor the president of the company performs his singular task because he wants me. Each one wants me less, perhaps, than does a child in the first grade. Indeed, there are some among this vast multitude who never saw a pencil nor would they know how to use one. Their motivation is other than me. Perhaps it is something like this: Each of these millions sees that he can thus exchange his tiny know-how for the goods and services he needs or wants. I may or may not be among these items.*”

And then he said this, which brought us very close to what we needed to understand.

“*There is a fact still more astounding: The absence of a master mind, of anyone dictating or forcibly directing these countless actions which bring me into being. No trace of such*
a person can be found. Instead, we find the Invisible Hand at work. This is the mystery to which I earlier referred."

And getting even closer he said this.

"For, if one is aware that these know-hows will naturally, yes, automatically arrange themselves into creative and productive patterns in response to human necessity and demand — that is, in the absence of governmental or any other coercive master-minded — then one will possess an absolutely essential ingredient for freedom."

But then that was it. Things will just "automatically arrange themselves." If there is no government or no central body directing the economy, pencils — and everything else — will just happen, just come into existence. The entire apparatus of an economy that provide us with food, clothing, houses and every other good and service will just materialise as if by a miracle.

And while I know what he meant, and I agree with everything he said, I don't think he said everything that needed to be said. He just didn't go far enough. There is much more that needs to be explained if people are to understand how all this happens. And that is what I intend to do.

Understanding How Things Work

Because what I find so tragic is that everyone can see that things to buy do flow towards them, but still do not understand how this happens. They can see we live better than those who were buying pencils back then. They can see our lives have been improved by the many products that have been invented since those times. They can see all that; but I fear they do not understand how all this comes into being. Because these are not miracles. They are the result of the operation of the economic system in which we live, which is as difficult for most people to understand as the workings of the phones everyone now carries around in their pockets.

And because they do not understand how the economic system works, they may, in their ignorance, ruin the very processes that have brought all this prosperity into their lives. That is why I have decided to explain the parts of the story my illustrious ancestor left out.

But before I do that, I would like to tell you a little bit about myself. I am a direct descendant of that I, Pencil who told the original story. I am a much more sophisticated writing implement than he had been. If you had known him back in the day, in every school room and office there were these gizmos called 'pencil sharpeners' attached to desks and bookshelves so that if your pencil became blunt, you could carve away a bit of the wood and bring the lead back to a very sharp point. Some of these sharpeners even used electricity. Nowadays, the only sharpeners are tiny hand-held versions kids still keep in their pencil case — if they still have a pencil case.

I, however, am a Mechanical Pencil. Much improved from how things used to be. I often look like the pens you often see me with as part of a matched set. You no longer have to sharpen me but just put in new leads. And these leads come in different sizes and different levels of hardness. We are a long way from the kinds of writing implements that were once so common.

And that is the story of everything. Everything has gotten better and better. Slowly, year by year, there are improvements here and improvements there — and then when you look back over the space of only a few years, the products we used then seem so inferior to the products we use now.

What happens with just about everything is a series of innovations that take place almost invisibly but which eventually add up to quite a bit. But even then, with this process of improvement and innovation, we have to step back a bit and come to understand how all of that happens. Because unless people do, they really won't understand much at all. And what is truly sad, is that most people don't understand what I am about to say.

For you see, none of this is miraculous; but the outcome of deliberate decisions made by millions of people around the world who produce goods and services and sell what they produce to others as their way of earning a living. And these are not just sold to consumers to use in their daily lives. These very importantly are also the goods and services produced and sold to other producers to use as inputs into the goods and services they produce themselves.

This is the process people have to understand. Without understanding this, they will know almost nothing about what goes on in the world that allows them to enjoy the goods and services they find on the market.

Yet almost no one understands any of this even though they live right in the midst of it all. They never see what is going on below the surface. It is what is going on there that I wish to explain to you now.
Making the Invisible Hand Visible

These are the elements that go into the entire social apparatus that makes an economy work.

1) There are first the entrepreneurs who own and run our businesses.

2) There is then the provision of finance. Entrepreneurs must have some means to access the inputs they need before they have earned the revenue to pay for them. Given the sequence in which production and then sale takes place, entrepreneurs must have access to part of the economy’s store of available resources, which is not itself money, but consists of labour, capital and other forms of input, such as electricity and technical know-how which can only be acquired if one has money. Therefore, to get their hands on all of these inputs, entrepreneurs must first find someone to finance their business by lending them the money they need to spend to buy those inputs.

3) Beyond this there is the ‘price mechanism’. This is so important that almost nothing is as crucial as this for ensuring our prosperity continues. Without a functioning price mechanism, in which businesses set their own prices for themselves without government involvement, an economy absolutely will not work. Unless businesses are permitted to set their own prices based on their own production costs and customer demand, you are guaranteed to live in poverty.

4) There is then the role of profits, which has an absolutely crucial social role, not only in telling us which products buyers want but also by providing the incomes for those who own and run our business firms.

5) Next there is the role of governments. Government regulation of an economy in just the right way is essential to ensure everything is able to keep trundling along without your ever having to notice what is going on.

6) And while one could bundle this into the role of government, an absolutely essential separate strand is the protection of property rights. Property rights are not just a fundamental element in protecting personal freedom, but are also as essential in promoting prosperity and economic growth. Unless private property is protected not only from all forms of theft, but also — and possibly more importantly — from the predations of government, capital will not accumulate; and wealth, either personal or communal, will never grow.

These are the absolutely essential elements of a market economy. Without each and every one of these as part of the framework of how an economy operates, the result is certain poverty. Take any one of these away and an economy grinds to a halt. But to understand why, you have to understand how the abstract freedoms we value are translated into prosperity.

There is, of course, more to it that is part of our ethical, moral and legal heritage. Our values, our sense of right and wrong is crucial, but differs from one community to another. It is the six elements listed above that are an invariant necessity. Absent any of the six and an economy will not work.

The Errors of Socialist Theory

And to emphasise how important all this is, let me provide the contrary propositions one hears all the time by those promoting the socialist alternative. Each of these is a fundamental error that if followed by a government will plunge an economy into deep recession and leave its population in poverty. And I don’t mean all of them together. I mean each one on its own would create economic chaos and poverty. These are, according to socialist doctrine, the elements in the operation of a socialist economy.

1) The economy is run from the centre by the government itself. Central planning replaces ‘the anarchy of the market’. Where the private sector remains, massive and intrusive regulations constrain its operation at every turn.

2) Finance and national savings are allocated by the government into the sectors of the economy it believes are the most productive. Little, if anything, is left for the market to determine.

3) Prices are administered by the government, with the prices of the most important consumer goods — such as for food, housing and energy — strictly controlled.

4) Production is ‘for need and not for profit’. Guiding an economy according to profitability is sharply restricted, if not actually eliminated.

5) Planning of the entire economy replaces the adjustment processes of the market. The government does not just watch over the
economy, it runs the economy. Where private firms are allowed to exist, a high level of regulation accompanied by high taxation becomes the rule.

6) Property rights are abolished, or at the minimum strictly curtailed. ‘The resources of the nation belong to the people’ becomes the principle underlying the laws relating to property. Only the ownership of one’s personal belongings is permitted. Every major enterprise either belongs to the state, or if nominally still owned by private entrepreneurs, has all its decisions overseen by government bureaucracies and subject to political direction.

This has been the socialist blueprint tried over and again; a form of economic management that has never succeeded. A guaranteed disaster, certain to fail. Let us therefore look in more detail at the six elements that must be included in an economic system if it is to succeed. No one suggests a life of bliss and perfection — there is more to life than just economics. But with these in place, one will at least live in an economy that provides a standard of living as high as is possible, dependent on the ingenuity of its entrepreneurs, the skill level of the workforce, the capital available to industry and the level of technical knowledge embodied in its productive population. Here are the six absolutely necessary elements if an economy is to succeed discussed in greater detail.

The Entrepreneurs

First in importance are an economy’s entrepreneurs. Entrepreneurs are just ordinary citizens who decide to earn their living by producing goods and services they can sell to others.

And it is crucial to understand that these entrepreneurs are not government employees, nor have they been selected by the government. They are independent members of the community who seek to earn their incomes by running business firms.

And in running their businesses, they not only need to decide what to produce, how to produce, which capital goods they need, and which employees to hire. They must also secure the finance they absolutely require to pay for all the inputs they need before they are able to earn revenue by selling what they have put up for sale.

This is so important, that I will say the same thing again but in a different way.

The order in which things happen is that first someone — the entrepreneur — decides to produce some good or service to sell to others. Once that decision is made, other decisions have to be made on how to produce what they intend to sell. And once those decisions are made, they need to find some means to pay for the inputs they are intending to use before they have sold anything at all to anyone.

Finance

This is where the role of finance enters. An entrepreneur in starting and running a business needs money or lines of credit to pay for the inputs being used. Access to finance is an essential so that these available inputs can be used by the business. Without finance, virtually nothing can ever occur.

And this is what must be very carefully understood. Both the entrepreneurs and the individuals providing finance have no certainty whether a business will be successful or continue to be successful. Both take large risks in running and financing an enterprise because business failures are not uncommon.

If a business fails, the entrepreneur will lose the time and money invested. Similarly, those who provide finance are very careful in what they decide to do. It is the personal responsibility plus the fear of loss that are absolutely essential for the business success that helps to propel an economy forward.

This risk of failure and loss is an element in the process that cannot be dispensed with. Without the personal responsibility that such potential financial penalties create, businesses would not be managed as well as they are, nor would lenders be as careful in deciding to whom to lend. No business is guaranteed to return revenues greater than its costs. Nor is any business that has done so for a number of years guaranteed to do so in the future.

And it is because of these pressures placed on both entrepreneurs and lenders that our free market economies work as well as they do. Without such pressures, our economies would hardly work at all.
The Price Mechanism

What comes next is the part that is the most difficult to understand: the role market-determined prices play in deciding how to produce what entrepreneurs decide to sell.

What prices must do is reflect how much something costs. And what information about costs does is help entrepreneurs work out which is the least costly way to produce whatever it is they produce.

It is important to find the least costly way to produce because the fewer resources used up in making each particular good or service, the more resources are left over to produce something else.

Keeping production costs down is essential to maintaining and building our prosperity.

This is why prices matter so much. If prices are properly set in the market, the revenue received by each entrepreneur will cover all the costs of production. If every producer sets their own prices, then the prices charged for every input will provide the essential guidance to entrepreneurs on how to keep production costs down.

Should, for example, a producer use steel or plastic? Should walls be made of timber or brick? There are choices to be made everywhere, and compromises too.

In the end, a business must find the best combination of inputs that keep its own costs as low as possible while still producing the best possible product within this cost constraint.

You may not think keeping prices down is what businesses are doing, but that is exactly what an economy forces them to do. They are compelled by competition of the market process to sell whatever they produce at the lowest prices they can.

Of course, as quality improves, so too will the prices charged. Better products cost more to produce, which is why their prices are higher, but also why fewer people will buy the higher priced products.

People must understand this, or they will never understand how an economy works. Market-determined prices that reflect the underlying production costs are essential if an economy is to function.

Governments often believe they are helping their citizens by ordering that some prices are lowered. And as pleased as many people are when such actions begin, the reality — shown time and again — is that governments that stop prices from adjusting (which usually means they have stopped some prices from rising), create damage that not one person in a thousand can understand. The result of such price controls, rather than people being able to buy the things they want at lower prices, is that they find instead they are unable to buy many such things at all.

I will go through this a third time, again in a different way. Because if you understand this, you can never again be lied to about how an economy works.

As my ancestor wrote, no one can make a pencil. All the bits and pieces have to be brought from all over the world so that a pencil can be put together. But why should the makers of wood, lead, metal and rubber produce all the various components to sell to the pencil producer? How do they even know these are the bits and pieces pencil producers need so they can make pencils?

In fact, they don’t know anything at all about making pencils. Pencil producers know, and are always thinking about, how to make pencils better. That is why nowadays adults, if they use a pencil, mostly use mechanical pencils such as myself, which often have no wood in them at all.

Makers of mechanical pencils make decisions about the kinds of pencils they believe buyers want, and then work out how best to bring these ideas into reality. And in doing that, they look at the prices of the different possible inputs they might combine to work out how to achieve their ends at the lowest possible cost.

But without a production system in which every single input sold on the market has a price that reflects its cost of production — which is a measure of its scarcity in relation to demand — this calculation cannot be done. It becomes literally impossible to do.

And not only is this true for pencils, it is true for everything else in an economy. Every price must reflect its production costs if an economy is to function. There can, and will, be government subsidies here or there; but if the economy is to adjust to changing circumstances, the price system must be left to itself to guide the economy in the direction it needs to go.
Profits

But beneath all the adjustments made across an economy is the absolute necessity that businesses must earn profits. No one will run a business for long if it is being run at a loss. But there is much more to it than that.

A business has costs and it has revenues. Unless those revenues exceed production costs, the value of what has been produced has not compensated for the value of the resources that have been used up.

And this is not an issue restricted to the outcomes in individual firms. This is an issue that relates to the economy as a whole.

The total value of everything produced must exceed the total value of all of the resources used up in production if the economy is to grow. That, in a nutshell, is what economic growth is.

Unless more value is created than used up — which is what profitability measures — the economy cannot grow. Growth occurs when the value of output exceeds the value of all of the inputs used in production.

Some businesses may lose money. Some government outlays provide no return, often by design. But across an economy, there can be economic growth and increased prosperity only if more value is produced than is used up.

An Interim Summation

Let me now bring everything so far together:

• Only if the individual entrepreneurs across an economy are collectively able to earn profits by creating more value than they use up will the economy grow.

• The only way entrepreneurs can earn profits is if they are able to calculate whether they have created more value than they have used up.

• And the only way an entrepreneur can make such calculations is if everything produced and sold in an economy is sold at prices determined in the market by those businesses themselves.

If you live in an economy that keeps ticking over, you may be sure it is exactly this that is going along in the background. It cannot be done in any other way.

The Role of Government

Governments mostly don’t produce anything, and what they do produce they usually do not produce at the lowest possible cost — even if that is their intention. There are just not enough commercial pressures on a government enterprise to ensure costs are contained and more value is created than used up.

However, what governments do that is essential is make the rules in which entrepreneurs and the businesses they run must operate. It is how well or how badly these rules are made that determines the success of the economy and the prosperity of the people who live in the community on whose behalf the rules are being made.

The best-run economies are managed by governments who understand how markets work and how important it is for businesses to make profits. They also understand the best way to ensure businesses are driven to their peak performance is to allow as many independent businesses as possible to compete in the market. Crucially, they do not interfere with the operation of the price mechanism.

Government rules that foster an institutional environment in which entrepreneurial activity and as much competition as possible spontaneously occur will create an economic environment in which both prosperity and personal freedom are the result.

There is, of course, a need to assist the sick, the old (and often the young), the unemployed and others. There are some forms of production — such as roads and public transport — that are themselves often best done by governments.

But if we are looking for an economy that grows, and makes individuals self-sufficient and increasingly more prosperous, allowing the market to operate is the only way it can be done.
Property Rights

And while such regulations are essential, at the very height of what matters is the protection of property rights, which are of particular importance in making sure an economy is able to work.

Rights are inherently individual. And while there are many aspects associated with property rights, and especially personal freedom — which cannot exist unless the right to one’s own property is guaranteed — so far as the economy goes, the importance of property rights is paramount. Unless those who build our enterprises feel secure in their ownership of what they have built, they will not build those assets in the first place.

No one will outlay their own wealth, or allow others to borrow from them to accumulate productive value-adding assets, unless they believe they will themselves make a positive return on their outlays of time and capital. Running an enterprise, even in the best of times, is high-risk. Even in the best of times, only a small proportion of new business ventures end up paying their own way. Most end up shutting before they even earn their original capital outlays back, while many others make only a small return before closing down. And this happens even where the government does all it can to ensure businesses are protected from theft by those who try to plunder the wealth created by others.

Yet possibly more important still is that governments should not look upon the wealth of the populations they govern as a target from which they are able to enrich themselves and their friends. The coercive powers of the state should not be trained on the individual owners of wealth, as targets to be pillaged by the government. Punitive taxes and other means of confiscation, such as nationalisation of various firms and industries, will put a quick end to economic prosperity, but are often, for all that, a temptation for government officials seeking wealth for themselves — irrespective of the future consequences for the communities they govern.

A government that can be made to restrain its rapacious demands — which almost inevitably means some kind of popular control of public officials — is essential for an economy to succeed.

And it is not just the rich who are made better off by a rigid defence of property rights, but every member of the community; both rich or poor, whether or not one owns property oneself. The defence of property rights is an essential element in the generation of wealth. In any community in which property rights are not defended, there will be a massive fall in the real standard of living for everyone, rich and poor alike.

The Process of Change

Of course, nothing stands still. Just as there have been newer and better kinds of pencils, there have been newer and better kinds of everything else. There are new products and services being invented, along with improvements made to products that already exist. There are also many new ways to do the same kinds of things that were once done one way and are subsequently done in another.

And because of such change, entrepreneurs and the market are essential to ensure new products are introduced into the economy, and then once introduced are continuously improved.

Such changes are almost always introduced by businesses who see opportunities for profitable enterprise. Without entrepreneurs who commercialise new ideas, almost nothing would change.

If the goods and services produced are what buyers want, they make profits and provide competition for those enterprises that were already in the market. Everyone then has to adjust to allow these new enterprises to both sell, and buy, inputs.

And this is where the price system comes into it again. Sometimes these new enterprises produce goods to be sold to final consumers, and sometimes they produce new forms of input.

Once there was steam power and then there was electricity. First there was the horse and then there was the car. The telephone was once new and so was the internet.

Innovation often disrupts everything about the way we live and work. This is why the price system is essential, because the changing of prices makes every user of our resources take notice and react.

The economy just keeps on adjusting as newer and better products are developed one after another. And not just consumer goods but producer goods as well.

But this happens only in an economy that is designed to encourage change and then compel adaptation to these changes as they happen.
**Signing Off**

In its own way, it’s sad that no one really appreciates just how complex even a pencil actually is. We, like the countless other products available today, are just there. No one really thinks about where we came from, what our origins were, how we were developed and how we will become even better as time goes by. It is sad for me to realise just how taken for granted we are.

But I hope that now that you have read this you will have a deeper understanding of the way our market economy works, and will never be bamboozled by anyone who tells you that you can become more prosperous by getting rid of our economic system; based as it is on entrepreneurial decision making, the price mechanism and the incentives provided by the desire to earn profits.

And you should especially make sure you realise that the market economy is the source of your own personal freedom as well. Without the one you cannot have the other.

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*Steven Kates is the author of Free Market Economics: an Introduction for the General Reader now in its third edition in which all of this is spelled out in much more detail.*

You should also read the original *I Pencil* which was written by Leonard Read and published by the Foundation for Economic Education in 1958.
About the Author

Steven Kates

Dr Steven Kates is currently an Adjunct Associate Professor at the RMIT University in Melbourne where he has taught since 2005. He however spent most of his working career as the Chief Economist for the Australian Chamber of Commerce and Industry where his economic ideas were tested in the midst of national policy development. His main area of research since returning to the academic world has been on classical economic theory with particular focus on the classical theory of the business cycle which has meant he has also undertaken a great deal of research into the deep flaws in Keynesian economic theory and modern macroeconomics. He is the author of *Free Market Economics: An Introduction for the General Reader* (Edward Elgar – third edition 2017) which is a restatement for the twenty-first century of John Stuart Mill’s 1848 *Principles of Political Economy*. In his text, he explains what economic theory looks like if the supply-side of the economy is placed at the centre of economic analysis and in which Say’s Law is brought back as the core principle underlying macro theory.