**Fusion 2:**

**A Grade 12 Introductory Class in Economics**

When I was your age, my father decided to venture into the bread-baking business. A strange decision, since he was a pub-owner, of the style you may still see in that part of your town, Sydney, called The Rocks. I checked it out earlier in my visit by glancing in the door: "The Last Hero of Waterloo". I could have been in Dublin of my teen years. In those teen years, too, I heard, and loved repeating, a joke which I share with you now. We will find, at the end, that the joke sums up our venture here into economics in that it takes a stand against the direction of your textbook. But even if it didn't I have always found that a pause of humour is important. For one thing, "once upon a time" regularly lifts us out of the stale state of classroom trance, and if you get the joke that you have at least one insight, you were alive once during the unholy hour.

Once upon an afternoon, a two-wheeled horse bread-van pulled up at the side of the street where there happened to be a swaying drunk fresh from a liquid lunch. The van-man chained the wheel: I am talking now of the type of van we had in our little bakery, one I worked on myself in those days. The van-man then carried forwards the feed-bag to tie on the horse's head. The horse was a little frisky, so there was a struggle with the bag. While the van-man struggled, the drunk observed and swayed. Eventually he - women didn't drink publically in the afternoon in those days - he remarked, "You'll never do it .... you'll never do it." he repeated his message, to the annoyance of the struggling van-man, who finally turned to him and asked "What will I never do?" "You'll never get that big horse into that little bag".

Not a bad old joke: but for me, in Australia, there was the added humour of finding, fifty years after hearing it, how that final question sums up Lonergan's claim about present economics. And there is some advantage, despite my deep dislike of summary, in pausing over the seeds of dissent as we struggle here to sow the seeds of consent and choice in the considering of horse and feed-grain.

The problem is a problem of two types of pricing. Let us say that our horse is now too old, is to be retired today - and I mean in the sense that, yes, this did happen in the family business on which this telling depends. We need to buy another horse today, and we need also to buy feed for that new horse. So, we have to spend twenty pounds for the horse and one shilling for the grain: a total of 20 and one twentieth pounds. But does the adding make sense? Well, yes, its money laid out in the business. But do the two purchases, so to speak, fit in the same bag? Suppose we in the business are, as we did, estimating outlay for this week, this next month: we certainly estimate that we need to buy grain for the horse each day. But we don't estimate buying a new horse each day. We don't fit the prices in the same bag.

Let us leave it like that for the moment, and get back to much more elementary reflections on running the little business of supplying bread to a portion of the community. Let us pin down our enterprise in a diagram:

It is a simple diagram, representing the supply of bread, going from our bakery to some sub-group of the public. But let me nudge us forward a little by asking, where did we get our own bread for the table? We got it from our own bakery. Good business, moreover, would require that we purchase it: we did not, but let us slide past that indiscretion. The point I wish you to notice and brood over is that when we think supply and demand we think functionally, not locally; or some such. That brooding is a lift towards getting ourselves into a scientific mode of thinking, and moreover noticing that science is not a departure from reality, but a reach for understanding.[1] A good

[1]A key point here, which relates back to the problem of *haute vulgarization* of the end of chapter one, is that made in *The Triune God: Systematics* (University of Toronto Press, 2006), 725, "*Only in an intermediate scientific stage are relations divided into predicamental and*

soccer coach thinks functionally, with the overall function of winning meshing with and flowing in the sub-functions of striker and goalkeeper, and the further sub-functions of heads, legs, insteps. The issue here is the human teamwork that would issue in the goal of well-being. But we are not going further into that at the moment, unless someone has a question. The big point here is for us to start thinking about function: function as an orientation, a direction, towards achieving something. It will take us time to soak in this: and that is something important about the type of thinking we are getting into. It takes time, and we have to fight the tendency we have just to remember, or to repeat something so that we remember it for longer.

What we are interested in is the various functions of money, so let us begin by modifying the diagram so we that are talking about the flow of money, not the flow of goods like bread. We switch our interest by simply reversing the arrow in the diagram:

It is useful to pause again over function, functions of money. It I helpful to think of the direction or orientation as not necessarily a matter of flowing. Sometimes it is a matter of designation: the money is resting in your pocket, but you have your ideas of where it is to go: some is needed for bus-fare, some for chocolate, some for Christmas presents. In the latter case, the money may "rest, designatedly" for quite a spell. The latter case is one that occurred in our weekly bakery fund. You have to imagine us, in our small family business, accumulating money - payment for bread - during the week,

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*transcendental, and even in that state such a division is not very suitable*"(italics are Lonergan's; *state* should read *stage*). I refer to this volume later as **Triune God, Systematics**.

and at the week's end designating money to pay bills: for flour, for the van-man's wage, for the horse's feed. Forget about banking: we could handle the whole set of transactions ourselves. But, as with the Christmas present problem, we needed foresight. We had in fact two vans: a motor van, and the two-wheeled horse van. We had to keep those two assets in working order, like feeding the horse, paying the van-man. But we also had to anticipate slow wear-and- tear.

We were not always good at checking out wear-and-tear. I recall once being in the passenger seat of the motor-van on a Dublin street - I was helping my brother with deliveries - and the back wheel on my side of the car passed us on the road. Luckily the car was balanced weight-wise so that we rolled on. The nuts holding the wheel has been eaten through. Anyway, you can see that money was needed for such eventualities: dead nuts and dead horses.

Let us keep things simple for the moment by thinking just of regular replacements. And let me start using numbers to help us hold our thinking together. Here we can think in terms of that single business or we can broaden our thinking to include a whole city or even a whole country. We have an arrow in our first diagram: let us put in the definite number 1,000,000, calling it dollars, to represent income from sales over a period, say, of a year. If you are realistically unhappy with its size, then add three zeros to make it a billion (six zeros for a British billion!).

You and I may keep thinking of one small business, like the bread-supply business, or we can think more broadly, but what I want us to hold to for the moment is thinking about businesses that supply what we normally call consumer goods.

We need patience here, the patience of scientific discovery slowly shifting our thinking. Let us go back to the joke about feed-bag. The horse consumes the grain, but didn't we in some way consume the horse over the years? So, let me say that by normal that I mean what we normally mean. Bread is a normal consumer good, but so is a family car, even though it lasts longer. But what about a bread-van, or even a car used for delivering pizza? These are **used** in the business of providing normal consumer

goods.

We have to pause over this. It is unfamiliar. It needs illustration and a question time. It is no good just remembering what I am saying. We have to move the mental muscles, and, if we have never done serious scientific thinking before, this is a shocking strain. And you may find a larger shock here, in that you find out that you have in fact not done any serious scientific thinking before.

But let us leave that for the next class. And to prepare for that class, think perhaps of your learning that acceleration is $d^2s/dt^2$.[2] You may find that the learning was not scientific thinking at all. And it may come as a further shock to find that one can do economics, and become a teacher of economics, without doing any serious scientific thinking.[3] That, sadly, is part of the present situation in economics, and we are going to have to face it when we push on into Reilly's text.

I raise these larger topics, curiously, so as to encourage: this is difficult work; serious human thinking is difficult work that most humans are unused to in present times.

Back then to our consumer-good businesses. It can be really entertaining to start looking at the street in terms of normal consumer goods and what I call for the moment abnormal consumer goods, like bread-vans or cars used in business. When I first had a

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[2]See the text at note xx of chapter one.

[3]I cannot resist giving you a favorite quotation from Joan Robinson, "The student of economic theory is taught to write O = f (L,C) where L is a quantity of labor, C a quantity of capital and O a rate of output of commodities. He is instructed to assume all workers alike, and to measure L in man-hours of labor; he is told something about the index number problem involved in choosing a unit of output; and then he is hurried on to the next question, in the hope that he will forget to ask in what units C is measured. Before ever he does ask, he has become a professor, and so sloppy habits are handed on from one generation to the next"("The Production Function in the Theory of Capital," *Review of Economic Studies* 21(1955), 81). Lonergan is brilliant in handling both the determinate and the indeterminate in economic measurements, even to generating a solution to the old problem of the quantity theory of money. See McShane, "Trade-turnover and the Quantity Theory of Money," *Pastkeynes Pastmodern Economics: A Fresh Pragmatism,* Axial Publishers, 2002, 137-53.

shot at teaching this stuff - in June of 1977, to university teachers - I invited them to look out the window at the flow of automobiles and try to detect the two flows of normal and abnormal consumer goods. Quite a piece of detection. And it cannot be hurried. It leads to a very odd view of, say, city life. It should be a main task, in the introductory economics of grade eleven, to come to grips with that reality in the few blocks around the school.

That illustration was of the function of automobiles. Let us get back to the function of money. Think again of the simple business of suppling bread that results in an income of $1,000,000 each year. Now, can you stay with me in your thinking when I suggest that it is pretty realistic to think of needing to set aside one twentieth of that income to replace pieces of equipment, like the motor-van, the two-wheel, the horse? Horse-lovers should not be upset: that piece of equipment was almost a member of the family. Why do I say one-twentieth? Because, before built-in obsolescence became fashionable, things were assumed to last longer? Here you have a chance to note the transition that occurs in becoming adult about facts. Sometimes, when teenagers are asked what would happen e.g. to the time of the swing if you shortened the length of string of a pendulum. They guess. But the adult thing is to gather relevant experiences: try it! So, here, the one twentieth gives a reasonable connection with actual events.

Back to our $1,000,000 income then. I have suggested that $50,000 somehow be diverted for those long-term events like buying a new van, a new dough-mixer, a new horse. I would have you notice here that I am leading you on, but also leading you away from related questions and sub-questions: I don't mention these, precisely because they would distract you from my simple tracking. If our situation were tutorial rather than classroom, the distractions and sub-questions would be built in.

The main thing now is that you accept as plausible the need for this diverting. Indeed, that is the central question of this first class. Still, there is an evident distraction here that many of you have about the income. I have been focusing on the abnormal and relating it to this diversion. But we are sliding past normalities here. I am talking

about $50,000 being diverted, but what of the non-diverted $950,000? What do I mean by non-diverted?

Let us go back to the diagram and think of the normal goings-on of a little business. The normal goings-on involve wages to workers and the buying of ingredients such as flour. Are you with me here? Can you think of other elements of what we are calling normal goings-on?.....

By thinking this way, you not only add to your concrete grip on what we are dealing with, but you also discover what we are leaving out, conveniently or by trickery. So now, I introduce a piece of trickery when I suggest that the $950,000 can be thought of as being the outlay of wages. This includes the wages to the people running the business too, some of which are used to buy their own produce (recall my earlier point about us eating our own bread).

So let us now modify the earlier diagram by thinking of business outlay as split between wages, $950,000 and the diverted $50,000. How do we diagram the diverted $50,000? Well, it doesn't matter, as long as we get it away - arrow it way - from the circuit that we are focused on. The circuit is, first, the buying and selling of bread, but as we broaden our reflections we manage to think of buying cars or bicycles or tea or cinema tickets or .... whatever we think of as normal consumer goods.

Now a couple of distractions that should help here, to show that there is something to the trickery. First, think of a very primitive non-urban economy, where various groups in the wilderness simply collect different foods: coconuts, goats-milk, bugs, berries, and exchange them for some standard "coin of the realm", like a certain number of seashells. That set-up is very like our set-up, but there is no diverted block of seashells. Now simply shift to the various groups in our own city that supply what we want in our consumer lives: we get close to our new diagram now, except for that curious diverted $50,000. But notice an oddity: for the primitives, a 1,000, 000 shells go back and forth. With us, the diversion leaves us in the curious state that $1,000,000 is used to purchase all the consumer goods of the community but the outlay, the wages, is

only $950,000. So, it really doesn't work. Any ideas, suggestions, reactions?

One good suggestion here: divert the $50,000 back. And indeed, that is the way it works. And I suspect that if we paused over this for a few days or weeks, we could work out the way.

Let us get back to the reason for diverting the $50,000. The reason is that stuff that we use to make consumer goods - a problem that the "collecting" economy does not have - does not last for ever.

Notice here a difference between what we are doing and what the primitive group of collectors might do. They might, for example, invent ways of collecting and delivering: baskets, say. We live in a world where such inventions are taken for granted, and much later we have to tackle what that does to the simpler economy. But, at any rate, we are only trying to understand our situation, not invent it. Still, notice that we are trying to invent an understanding, which is always difficult.

The key here is to spell out the character of the diversion. Spelling it out sends us back to the idea of abnormal consumer goods. We can jump right into the beginnings of an answer by using a word that is so familiar to us: the word *capital*, which comes from *caput*, Latin for head. The diversion of $50,000 over a period is called a build-up of capital in the sense of money and that build-up has the function - that notion again - of enabling us to buy from, yes, **another circuit of production.**

But we must take this very gently and slowly. Unless we are simply dong it ourselves, and every other baker too, then some group has to be into the business of making dough-mixers. Perhaps I need to describe dough-mixers, what they are like, how they are made, how they wear out? I can certainly do it for the dough-mixers of my teen years.

Now we can move, as we did with normal consumer needs, to consider the provision not only of dough-mixers, but of all the various other abnormal needs. But the main thing is that we thinking of this new circuit of money and supplies. We could mess around various ways of diagraming that second circuit, but certainly it is going to

look and work pretty well like the first circuit, and you will notice that the similarity even goes to the need for diverted money. Think, for example, of the tools needed to make dough-mixers: they too wear out. But let us not push on into complications we in fact don't need. So what seems best now is to add the second circuit in a way that adds a curious mix of numbers that will give us enough to puzzle over for the rest of this class and open us up for our next session. I have a page of exercises for you to battle with before that next class.

So, here is the diagram, a doubled diagram. Why is the top not the same as the bottom? No serious reason: but if I put suppliers in the new circuit right above suppliers in the old one, you would notice that the $50,000 would have to cut across the page or board. Later, we shall see other advantages, when we build a more complicated diagram that brings in banks. But we have enough here to get the basic insight and to consent to the need for two circuits and the minding of the two circuits. Here, then, is your homework diagram, about which we'll talk for the rest of this class.