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## Permanent aggregate demand and fiscal policy

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### Abstract

A tax policy entails a manual and plastic control of the budget. Such control requires an omnipotent management of public matters (*res publica*). We believe in the existence of Leviathan and it is obvious that Leviathan is ungovernable, thus any practical possibility of conducting a tax policy is born dead. An even better and more extreme idea than that of Leviathan is our mechanistic concept of the State as an impersonal, amoral and autonomous Machine. No one controls it. From here on we will speak of The Machine in order to invalidate the practical possibility of conducting a tax policy.

In general, tax policies seek to control the budget: control public taxes and expenditure in order to manipulate aggregate demand and by doing this achieve GDP growth goals, full employment and/or control inflation. It means that the State plays the role of a buyer or influences other buyers to further influence producers. Such replacement is not wanted because the consumers' behavior follows an stable social and psychological path that determines a permanent demand, which producers use as a guide. The State's behavior is neither permanent nor stable but erratic, and it causes trouble in the system in a much larger proportion than it offers solutions.

Budget manipulations have an impact on the monetary market: the amount of money and interest rates. Such impacts are not wanted and neutralize the supposed accomplishments of a tax policy. Offsetting monetary activities intersect with fiscal activities and disconcert the goods market.

**Keywords:** The Machine, permanent demand, passive budget, relative money supply, permanent interest

### Introduction

Political power is the capacity to act in State matters. It is a legal capacity and a forceful reality, which combine in the power of the executive. Basically, the power can be defined as the opportunity of presaging the nation's and the Administration's necessities and thus implementing the public spending which meets these necessities. 1. It establishes the level of taxes, which fund public spending. In short, we can say that the Executive draws up the budget with the implication that it can be modified according to political and economic interests. The other side of Executive power is the implementation or application of the budget at a national level. This rationalization serves to show that the technocrats can draw up the budget however they wish, calculate it and the State does the rest. This is fiscal policy. We shall see that the politician is dominated, when he is not overcome, by external and internal forces which we call Leviathan, a phenomenon which, without wishing it, creates the budget in the same way as a storm causes disruption.

Macroeconomics has served as a powerful tool for technocrats to be able to create fiscal engineering. The essential component is the income multiplier and by multiplying public spending on the one hand and de-multiplying taxes on the other, production expands inexorably and mathematically, while income and employment, conversely, cool the economy down 2. Thus, fiscal policy is not only infallible, but also necessary.

We forget that before the multiplier, the economy was born from hominids who feel rushes of adrenalin, have a brain and instinct, and find tranquillity in certainty and unchanging facts. Nothing is permanent or constant in public finance activity. When public spending goes up and/or taxes go down, producers do not increase production, they raise prices. The multipliers multiply nominal income not real income.

Whatever the budgetary situation, be it automatic or discretionary, it causes upsets in the monetary market. Deficits, whatever their source of finance is, or surplus, cause unplanned and involuntary movements in the money supply and interest rates. These effects overlap with fiscal phenomena and disrupt the market for goods, especially investment.

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Monetary activity designed to oppose these undesirable effects causes defensive effects among the economic players and causes monetary policy to fail.

The diagnosis, planning and enforcement of timetables and the effects on monetary policy and fiscal policy are dissimilar and asymmetrical. The discontinuous effects in time in each of the policies cause tides which are sometimes contradictory and sometimes overlap in the movement of money and income. The discontinuity in the waves of effects on demand and supply send the market wild on the consumption, investment and production sides. From any point of view, it can be stated that fiscal engineering does not exist. Budgetary policy is only a neat but unreal academic game.

### **Leviathan or the Machine**

La Civitas or The State is made up of people: mainly politicians and bureaucrats drawn from different professions who carry out multiple activities with differing goals. It is composed of several organisms with diverse functions who form weak or powerful alliances, fight and oppose each other and out of all that immense complexity comes public activity. If we admit this reality, who can say that the executive governs? That a single direction and homogeneous decision-making is the result of such a process?

What we call human activity is another thing, since its purpose is production and the satisfaction of human necessities which is guided by an invisible hand. The question becomes distorted in the field of public activity when, by some mysterious process, we believe and are made to believe that the politician stops being a selfish, economic *homo* and is transformed into a social *homo*. 5.

Hobbes' great contribution was the explanation and description of the Leviathan. Men gave up their liberty to protect their liberty, a pact which created a great monster. It is a concept which arises from physics. Power in politics is an idea which comes from physics. It is a simple objective criterion. One final vector arises from thousands of human and institutional vectors, it is the sum of the latter. This constitutes the power of Leviathan. There is no brain, no thought and no will. There is only action and energy like a sea current or an earthquake. 6.

Our contribution of The Machine is a more radical and impersonal extreme than that of the Leviathan. The Machine is the version of a mechanical theory of the State, where millions of fingers type away, some alone, others in association, and others contradicting the previous orders. The result is a message which does not come from a brain, which is written, without knowing why but knowing what for.

Electrical energy is selfishness and ambition which is instantaneous and energetic, not accompanied by production in this case.

The *screen* disguises the behaviour of humans who are ashamed of revealing their true intentions. It is very similar to the Marxist superstructure or the illogical behaviour of Pareto and even the Freudian subconscious. In our work the screen is the ideology of ghosts which was explained earlier: fiscal policy and social and cultural activities. The pictures on the screen are the result of the keyboard on the computer (the Machine) in which, the State is merely the casing, a structure or a model. 7.

Whether we work with the Machine or the Leviathan, the

conception of the State is mechanical and impersonal. The role of executive power is almost zero in the raising of taxes and public spending. The budget is tapped out by a multitude of fingers; by ideological and ghostly legacies, the trade union forces, the very executive power, political opposition, the banking groups, industry, Galbraith's techno-structure, the secret services, military powers, international and military political alliances etc. In our conception of the Machine, there are more fingers than the Leviathan has fingers, but at the same time there is less or no will at all. The budget is drawn up in the same way that the four forces of nature govern the atoms and the stars without any human intervention. Nothing could be further removed from the financial planning, calculations or decisions made in the finance department of a company.

In the budget, pensioners wish to maintain the real power of their pension, consumers want to pay less tax, the military want more money to spend, the insidious intelligence services want to handle more information which is of interest to those in power who will buy it, bankers to have more money to finance politicians and industrialists to sell goods to the State.

There is no calculation, no plan, nor any will of an autonomous executive. What exists is arithmetic in its two simple forms of adding and subtracting. There is no fiscal policy and it has probably never existed.

However, we can state that the vector forces or the key-tapping fingers want to create a budget since they intuitively believe fiscal policy to be appropriate. Such a thing occurred in the Great Depression when the business, political and military powers, after intuitively perceiving, rather than understanding, The General Theory of Employment Interest and Money, sought to spend as it would mobilize inactive savings. It has happened in the Treaty of Maastricht in Europe – the fingers of a powerful hand – which forced countries to reduce public deficit and to maintain the independence of the Central Bank with respect to the executive.

The following points will explain that the executive's attempts to carry out a fiscal policy are doomed to failure since it collides with the will and power of other groups. Even if they managed to overcome this obstacle, and could achieve a fiscal policy, they do not have the necessary skills to carry it out. And even supposing that they did have the wisdom and ability, their instruments, taxes and public spending, are rudimentary and brutal. A blind person with Parkinson's disease is never going to become a heart surgeon nor is King Kong going to play billiards.

### **Market tranquillity and permanent aggregate demand**

The market is the institution where human needs are satisfied. Producers maximize their profits by responding to these needs. This productive activity demands continuous study of those needs which are normally steady and with little short-term variance. The producer's compass, and consequently that of income and employment levels, is demand which indicates when, how much and in what form to produce and supply. Seafarers find their directions by use of a compass which is guided by a steady electromagnetic vector force whilst producers are guided by the steadiness and composure of aggregate demand. It is reasonable to assume that the steadiness of aggregate demand is necessary since it generates a basis of reasonable expectations among producers. 8.

What do we use to show that aggregate demand is steady?

We use the major element, consumption, which relies on social and cultural factors and, of course, income level. This demand is steady and is acknowledged both theoretically and empirically in the short and long term. It would appear that capital demand or investment seems to be irregular and unpredictable. It is dependent on rational expectations which get mixed in with the frame of mind of business. However, this statement, which macroeconomic analysts tend to believe, is not completely true. Replacement investment which covers or compensates depreciation is indeed steady and is a stable proportion of the volume of the stock of capital. This investment, which is so assured, that we can even say it does not depend on the businessman's behest, must be maintained unless the businessman wants to destroy his capital equipment. Net investment, on the other hand, is variable. But if we let our idea of steady aggregate demand intervene, net investment is a proportion of the periodic variation of that aggregate demand. 9.

Net foreign demand, exports minus imports is double. Imports are normally stable and depend on income but they do not have a direct influence on production. Exports can be unstable and do not depend on the level of national income. Both are excluded from our considerations.

That leaves us with public spending and taxes since both influence production and income. Analysis of these items is extremely important since it validates budgetary policy. For the moment we shall not enter into considerations of whether fiscal policy is possible or not. We shall limit our considerations to the effect the budget has on the market and in particular on aggregate demand.

Public spending satisfies the demands of civil servants, social, health and cultural legacies which, given a certain level of civilization, are constant even in the long term. It is true that there are variations in some public spending items such as military spending, but once it is established, it remains steady. Spending on pensions, for example, tends to vary (although slowly) over the years.

Wagner's Law demonstrates this steadiness in public spending and it is not difficult to see that this steadiness also exists, more logically, in the short term. 10. Musgrave's arguments and Peacock and Wiseman's hypotheses also have a bearing on this point. In general, public spending belongs to a permanent part or category of permanent aggregate demand.

Taxes influence permanent aggregate demand given a certain level of income. The effect on income is reciprocal and contributes to stabilizing it (without stating any positive or negative implications). The question is whether its effect on aggregate demand is steady and generates permanence in that demand. The answer is yes. In the first place, the executive has little power to collect a lot or little tax since that depends on incomes and the will of the tax payers (basically what Laffer states). 11.

Given that tax on income is what mainly causes income to be regular, then the aggregate demand that depends on income also becomes regular. If the executive modifies the tax rates, it is true that *temporary* disposable income varies and aggregate demand could also vary but not in the same proportion.

But does business interpret this information as permanent demand? It is almost certain that rational expectations will be altered and business will not trust this temporary

variation. In that case, stocks will diminish or increase with greater intensity than the variations that will occur in production. 12.

General taxation, without any fiscal variations, are monetary and psychological conditioning factors which cause aggregate demand to be regular.

Given the existence of the public sector and a budget in an economic system, over time, that existence will produce permanence or regularity in aggregate demand. Their activity will not disturb the market, in the sense that the uniformity of aggregate demand acts as a guide for the generative activity of production and income.

We should warn that the existence of a budget does not necessarily mean that the economy is put on the road to maximization of its potential for economic growth - that is another question.

There remains the monetary question. In principle, and while nothing is said to the contrary, neutral budgetary activity and deficit financed by the private sector, do not alter the money supply. If, as we have seen, budgetary activity causes aggregate demand to be regular, as a derivation of this, the demand for money, and more specifically transactional demand will also be constant. And given that, in principle, the money market is constant or steady, the price of money or interest, will not undergo much variation. And net investment, which in part depends on prospects of a permanent interest rate, will be stimulated and will not be disturbed.

### **The Fiscal Question, Permanent Income and Permanent Demand**

In this section we assume that it is possible to draw up a budget and carry out fiscal policy. Fiscal action is implemented through the careful modification of tax *margins* and /or spending on a determined budget. That means that not all the budget comes into play in fiscal policy, which means that not all the budget influences economic activity. The budget is the political plan of the political group and as such the executive fulfils it but that implementation does not necessarily imply that a fiscal policy is being applied. This is a *passive budget* which has little or no quantitative or organic variation year after year, since social and political demands only vary in the long term. The passive budget does not enter into fiscal policy. What is important is the influence of the passive budget, which is by nature, stable. It affects permanent income in a permanent way and permanent demand in a derivative manner. This is the subject under analysis. The executive *positions* its fiscal actions, which are the modifications in the tax and/or public spending *margins*, on this passive budget which is of a mechanical, administrative nature. This is indeed what fiscal policy is.

Macroeconomics first analyses permanent income and then its behaviour in the context of consumption. Until now we have contemplated the near entirety of aggregate demand and we have baptized it as being permanent.

For this to be true, income must be considered as permanent, and in turn, for our purposes, so that there is permanent income, the economic players in general must consider fiscal action to be temporary. Before we continue, we are not stating that fiscal turmoil is the only cause of temporary disturbances.

Once permanent income is determined, aggregate demand becomes regular and permanent and the market is steady.

Permanent aggregate demand, we insist, orients producers and the general production of goods.

If a discretionary tax variation occurs, there is generally no expectation that the action or its effects will be permanent. It is true that transitory income, for example, varies. However, individuals can defend themselves in many ways, for example, delaying consumption or asking for loans. Liquidity restrictions can be avoided. Moreover, there are goods, like basic consumer items which must diminish, replacement investment capital (which compensates for consumption of fixed capital), not to mention working capital too. Basic necessity goods which form a considerable part of consumption are resistant to reduction or increase with income variations. Replacement investment is obligatory and inevitable in a company which does not wish to disappear. Modern industrialized economies have dense capital formations. They are lofty, complicated cathedrals which require constant maintenance work, that is, constant replacement investment. Companies need working capital for their day-to-day running and this spending is generally inflexible with the temporary ups and downs of demand. Generally speaking, we can say that aggregate demand tends to be stable unless it is upset.

A rise in public spending deals an undeniable first blow in aggregate demand. That same spending is a part of aggregate demand which will cause a repercussion in production and employment. The classic examples being public works or a war.

2 questions need to be understood;

Firstly, is public spending is going to continue in the same volume and in the same economic sectors? We don't believe this is so because it demands the control and manipulation of State Administration in every sector, in every location, at every moment in time and that, we have seen, is virtually impossible.

Secondly, we wish to know if the effects are lasting. The reality is that the effects are explosive, like a detonation or starting up a motorcycle. They manage to temporarily spark production and employment in certain sectors and it is even possible that there are other spill-over effects elsewhere in the economy. But once the initial cause, the first blow weakens, the flame goes out. That is to say that ignition effects in permanent income, and consequently in permanent demand, are not produced. Once more we can see that the temporary fiscal disturbances, which we generously call fiscal policy, produce transitional effects, although their ambition is to be lasting. These transitional variations in income and demand do not prompt steady effects in production and employment.

At the end of the day, the secret of any economy is the metabolic process whereby money is turned into production.

### **Action on Margins and Partial Integration**

Our conclusions in the previous section about the scant participation of fiscal policy in income and permanent demand are reinforced when we analyse the integrated effects of tax and public spending. Partial integration refers to the effects of tax and public spending together and individually, without taking into account the effects of the money market for the moment.

Fiscal policy on top of a passive budget means acting on budgetary margins: a variation in taxation and / or a variation in public spending. A passive budget, we insist, is

the section of revenue and spending which the State receives for compliance with its social and political commitments which does not imply pondered fiscal action. Integrated effects on aggregate demand can have 2 directions, rational and irrational. Rational ones, which act in one direction and irrational which act in opposite directions. Rational ones which are taxes and spending in the same direction on aggregate demand: reduction of taxes and increase in public spending or increase in taxation and reduction in public spending. We will examine its effect, if there is any, on income and permanent aggregate demand.

Let us examine an expansive fiscal policy. The reduction in taxation produces an immediate increase in disposable income and a potential triggering of purchases. For that to happen, individuals must believe that this will be a continued or permanent situation. Even so, we can think that although they don't believe it, a fraction of it will go to consumption and, why not, to investment in working capital. In following sub-periods, within the period of reduction in taxation, this stimulating effect on aggregate demand will diminish. It is not to be expected that companies will increase their plans for production. They do not trust the increase in purchase as being permanent. In that period too, there will be a simultaneous increase in the public spending margin which is a direct, instantaneous increase in aggregate demand because it is part of aggregate demand. Through the multiplier effect, income begins to expand through converging waves from aggregate demand. There is a subsequent succession of sales and income in this expansive effect. This expansion is by sectors which should, more or less, spread globally. But does this mean that business, in a chain reaction, increases production and employment? It would be better to ask ourselves if this expansion will be helped by the stimulus from aggregate demand caused by a decrease in taxation.

This expansion generated by partial integration fiscal policy of income and demand is transitory. What we are trying to discover is if this produces effects on income, production and employment.

2 arguments limit the theoretical effects of fiscal policy:

1. Consumers will move part of these increases to the temporary acquisition of financial assets and other forms of saving. As we have seen, it will have a small, induced effect on consumption which will quickly fade, since fiscal policy is, by nature, transitory.

2. Business will respond to the first explosion by offering their stocks. With successive effects, they will respond by increasing production although it is not sure whether they will increase employment proportionately (Okun's Law). To increase production, in turn, they will resort to their stocks of transitory productive resources, that is, working capital, which they have in their factories. In general we can state that the basis of companies' strategic plans in the face of the expansive effects of income will not vary since they are, by their very nature transitory and are considered as such.

Next we must consider the question "How do we explain the size of the income multiplier?" "It is true that there will be a chain of spending, but this spending is met by the increase in prices to a much greater extent than the increases in real supply. By this we mean that nominal income increases much more than real production. If this integrated fiscal policy produces insignificant expansion in income and transitory real demand, the successive effects

are less intense. Thus we can say that if permanent aggregate demand drags production and employment with it, fiscal policy is not operating since it has very little influence on income and transitory demand

**Fiscal Policy and Permanent Aggregate Demand**

Let us examine 2 situations. One, in which fiscal policy is expected. The other, in which, from beginning to end, it is unexpected.

We acknowledge that fiscal policy only produces transitory effects in income and aggregate demand and that these transitory effects have little repercussion on production, income and employment. We wish to know if these transitory disturbances are expected or not, since if they are, fiscal policy is an unexpected reality.

Consumers and investors will not react to the variations in transitory income if they know that it is transitory. But, if there is a variation in transitory income which is unexpected and is, for example, positive, it is highly likely that aggregate demand will increase which will no longer necessarily have that surprise effect on the producer.

Is fiscal action unexpected? If the answer is positive, we still have a long path to tread which starts with its proclamation, its legislative authorization, its application and the subsequent tidal wave of effects. Fiscal action follows a lengthy institutional and legal process which goes from the diagnosis of the problem to the intrinsic political process of the budget and its application. A warning effect and a defence effect will be generated in the system. In short, if fiscal action on the margin is unexpected or not, the effects on income are not totally out of the blue, but are foreseen and to a certain extent, expected, and as such, their impact on production and employment is slight and short-lived.

We can even state that the system ; consumers, investors and suppliers protect themselves in the face of such fiscal action by changing their own behaviour in the opposite direction. However, in spite of everything, we do not wish to be so radical and we conclude by saying that there are short-lived, explosive effects which affect nominal income more than real income, and in a transitory manner.

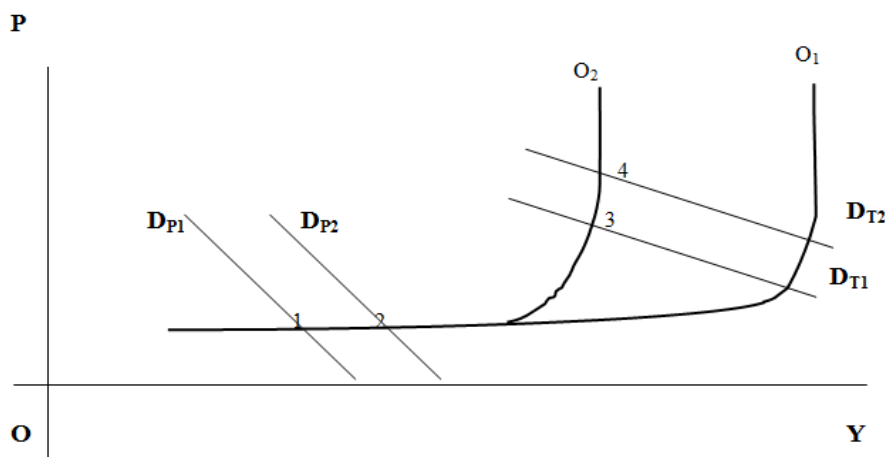
At this point let us conduct a science-fiction exercise. Let us suppose that the institutional and legal process of the budget's life and even its application is reduced to an instant. What would happen? Undoubtedly the impact on income and demand would be unexpected. The question is, would it be transitory? We shall respond from 2 angles: that of tax reduction and that of a rise in public spending. Let us suppose a reduction in tax. The surprise at obtaining unsuspected higher disposable income will be converted into a greater increase in aggregate demand, which will, moreover, be of a global nature and not necessarily sectorial. This increase affects production and employment. However, it will not affect it much, since unless it repeats itself period after period, which is almost impossible, it will not generate reasonable expectations. In particular, investment will be anything but automatic.

The unexpected increase in public spending will be a pleasant surprise for business. But as we have been arguing, it will take time in consolidating itself into permanent aggregate demand and provided that the pumping of public spending repeats itself continuously in volume and by sector.

There will be no warning effect., as in the previous case, nor will there be a defence effect. However, there will be a response in the form of an increase in prices and real production. The increase in prices will be unequal and will be greater in the sectors where nominal income is multiplied and thus in the economy in general, there will be a change in relative prices.

We stated in sections 2 and 3 that it is impossible for the executive to control The Machine or The Leviathan and so conduct fiscal policy. In the application of margins in fiscal policy it is difficult, if not impossible to achieve, that this is maintained during successive periods of time which allows it to be considered permanent. It is necessary to create permanent elements in the expectations of business so that a belief in permanent income and demand is established. However, no-one will believe in continuous, homogeneous action in aggressive budgetary activity. Nor is it desirable that this occurs because of the powerful, confusing effects it has on economic stability.

**GRAPH.1.**



The step from point 1 to point 2 is caused by variations in permanent aggregate demand which generates a positive response in business in terms of production and income. On the other hand, the step from point 3 to point 4 is due to the

variations in transitory aggregate demand (fiscal policy) which causes distrustful and comfortable responses from business in terms of price increases, but not in production or employment. The aggregate supply curve  $O_2$  with

idleness and unemployment is similar in form to  $O_1$  with full employment. In other words, the economy acts strangely as if there were full employment. Business could produce more but it does not.

Aggregate supply, that is, production and income, is created by aggregate demand more by stability than by size. Thus we can establish an approximate, intuitive relationship between production and demand in the following way:

$$O = f(D' / \sigma_d^2)$$

where  $O$  is real aggregate supply,  $D'$  the arithmetic average of demand and  $\sigma_d^2$ , the variance or deviation from the demand with respect to its arithmetic average.

### The Accelerator

The accelerator model associates investment for the period with production variations. Investment is a component of aggregate demand and as such deserves analysis. Investment, it is said, is changeable and erratic. However, we can add 2 conditioning factors: the interest rate and the existence of savings in the system. But, even so, investment is a marriage practically without divorce, it ties the businessman to his capital equipment for life and shows itself to be independent on occasions from these 2 conditioning factors.

The accelerator model ties the businessman's investment behaviour in the short term to variations in production. It is preferable to say that investment depends on income and sales variations which are correlative, to a large extent, with the variations in production. Production generates income which brings sales and profits to companies and, as such, the previous correlation is easily explicable. Profit, which in some of its versions, may not be a conditioning factor for investment, in our explanation does play a part together with variations in production. The accelerator model is, moreover *very clean* since it can be independent of the cost of capital. 13.

We believe that the accelerator functions, to a large extent dependent on the variations in income and permanent demand since it implies a considerable time frame. Investment, it must be understood, is a double marriage for eternity: one with new capital equipment and the other with the bank to whom loans with interest will have to be repaid. It is logical to think that this investment will be made in accordance with the prospect of expectations formed over a long period of past experience, in other words, variations in income, production and, more or less, in demand, which are considered to be permanent. If Friedman's version of consumption as a function of permanent income is true, then that of investment which depends on income and permanent demand has considerably more validity.

In short, the mistake in the shopping made by a husband at the weekend is trivial and the only cost may be a row at home, this is not the case with an error in investment. The accelerator model is only true if we consider income and demand as permanent. An intense reduction in the price of credit and an unexpected, transitory rise in demand does not launch businessmen into investment, which, by nature aspires to eternal dimensions. If fiscal policy, as we have seen, affects transitory income and derivatively, temporary demand, we must ask ourselves if it influences investment. The answer is no – a statement which we maintain even without taking into account the perverse effects on the money market. Moreover, can business consider fiscal

action as permanent? It does not. We know that fiscal action on the public spending side is biased towards very specific sectors and geographical areas. This provocative, transitory action does not stimulate business to invest. The accelerator model becomes inoperative because investment does not take place in the face of variations in production and income which are almost always transitory. The only variations in demand that business will make in the face of income and transitory aggregate demand variations will be in working capital destined to increase production which will, necessarily be transitory.

The other investment, replacement investment is inevitable, necessary and does not even depend on the expectations of business. It depends on the life of the company, that is, unless it is destroyed by the consumption of fixed capital. It is proportional to the volume of capital which companies maintain. In modern industrial economies it is a practically fixed proportion of the volume of capital which is kept and as such is a continuous force which determines the constancy of permanent aggregate demand. Frankly, we do not believe that fiscal policy has anything to do with this type of investment.

### The Money Market

#### Introduction

The money market will find itself in an stagnant situation due to the variations in the demand and supply of money, both caused by fiscal policy which will influence the demand for money, affecting transitory aggregate demand and possibly, permanent aggregate demand. It will also alter, in some cases, the money supply, which will influence aggregate demand according to the bases we establish. And both, the demand and supply of money, determine the interest rate which greatly influences investment. Fiscal activity, whatever it is, goes inseparably linked to the money market. For methodology, we shall separate them. In this market we shall analyse the demand and supply of money separately and then as a whole.

### The Money Supply

#### Deficit and Total Money Supply

The money supply is affected depending on whether there is a budget deficit or surplus. Let us look at deficits. They, in turn, depending on their financing will alter the money supply. In those cases where the deficit is financed by the central bank or by the foreign sector, there will be an increase in the money supply. In the first case from the making of new money, and in the second, from the entry of foreign currency which will be transformed into an expansion of the national monetary base. If our idea of budgets and the possible scope of the executive's manipulation is accepted as being unsystematic, the creation of money is also unsystematic without anything to do with a rational monetary policy. 14.

If we also accept the possibility of carrying out a fiscal policy, the consequences are not permanent in the same way as the possibility of managing a budget is not permanent. As for the rest, it is known that when there is no independence of the central bank from the executive, the executive imposes its dictatorship on the money making machine and deficits are financed with incredible ease. It is the first and foremost reason for hyperinflation. 15.

Subsequently public spending rises irresponsibly because it is known that we can always drink from the everlasting

spring of money.

When deficits are financed by the foreign sector, new money enters the deficit size which has nothing to do with the amount of money which has to be created to finance GDP under rational monetary policy. What is more, in the future, that money will have to be paid back by acquiring foreign currency with the national currency which almost always causes a plunge in the value of the national currency. ("the tequila effect"). 16.

The conclusions we obtain from these 2 financing situations are:

1. The growth of money is irregular.
2. The growth of money is abundant.

Therefore it is difficult for the market to build up expectations of a stable money supply which is permanent and expected. Money flows which provide force for aggregate demand are irregular and low in real terms (due to inflation) causing irregularity and weakness in aggregate demand. Steadiness in aggregate demand cannot be established on the monetary side.

### Deficit and the Relative Money Supply

In the case of deficit financed by the private sector, the money supply remains stable but through circumstance becomes diverted. This means that there is a continuous diversion of savings towards the public sector which deprives the private sector of its finance. Why is there a continuous diversion? Because the deficit of one period guarantees the deficit of the following period. If we assume an expansive fiscal policy demonstrated by a deficit, in subsequent periods it will be necessary to issue more public debt to pay back the principle debt plus the interest. There will be a constant diversion of savings towards the public sector whilst the money supply remains stable.

This *diversion* of savings causes a similar effect to the reduction in the real money supply in the private sector.

In these cases it is preferable to work with percentages between the total money supply and the savings diverted towards the deficit ( $M/\text{deficit}$ ) as a measure of the money flow which irrigates the private sector. As the deficits are repeated this coefficient will get smaller and we understand that the relative money supply will diminish. At this point we must consider the following questions; Given a provoked or discretionary deficit, are we sure that the subsequent deficits are also provoked, or rather, induced? The majority will be induced and not provoked. To check this statement the arithmetic rule of cumulative compound interest will help us. Assuming the existence of continued deficits, a steady decline in the relative money supply occurs (temporary decrease of the coefficient:  $M/\text{deficit}$ ). This decrease deprives the private sector of necessary finance, in particular of investment, which falls. Several arguments could go against this idea. One is that the real, total money supply does not contract but remains steady and the other is that the investment expulsion effect is not 100%. Against this statement we put forward our argument of the *diverted* money supply ( $M/\text{deficit}$ ) which is better than the total money supply, to understand the effect on the market for goods. 17.

The problem is not only that the relative money supply coefficient decreases, but that it occurs in an irregular manner. The part of the *free* money supply, which is the total minus the diverted, flows irregularly towards

aggregate demand which also flows irregularly.

The irregular advances of demand are interpreted as transitory advances which do not guarantee steadiness. They are temporary ripples of spending which try to hide the steady river of permanent aggregate demand. Since the supply of production of real goods responds, within a framework of rational expectations, to permanent aggregate demand, it ignores the transitory variations of spending.

### Deficit and the Demand for Transactional Money

The effects on the demand for money which derive from fiscal policy are as equally varied and arrhythmic as in the money supply. Let us consider the cases of deficits financed by the central bank or by the foreign sector. Whether they are due to a reduction in taxation and/or a rise in public spending, an income multiplier effect is produced which causes an increase in the demand for money for transactional reasons, and why not, for speculative purposes. Before we touch upon the money market in section 9, we shall examine the purely fiscal effects, and we know from these effects that income is multiplied by a greater proportion nominally than in real terms. The fact is, that whatever the situation, if income increases, it always does so nominally which results in the need for greater financial balances on the part of economic players to pay for their monetary transactions. When deficits are financed by new money, this intentional activity is not necessarily due to an aggressive monetary policy.

The situation is the same as if the deficit is financed by the private sector. The demand for money increases by the aforementioned multiplying effects on income. But if we consider *relative* money supply ( $M/DF$ ), which in our view contracts, there will be a greater demand for money chasing a relatively scarce money supply.

### The Effect on the Interest Rate

#### Introduction

Joining together the consequences of fiscal policy on money supply and demand, we determine the interest rate and are able to understand its effects on production and income.

Of all the arguments put forward so far, the most substantial of all is that of the permanent interest rate.

### Deficit and the Yo-yo Effect of the Interest Rate

In the case of deficits financed by new money, there is a confrontation between plentiful, uncontrolled creation of money and a demand for money for transactional reasons which varies in accordance with income multiplier effects. They are the 2 blades of a pair of scissors: money supply and demand not only have different strengths, but also different paces, so that their effects occur at different times. It is highly unlikely, if not impossible, to think that both growth rates are exactly the same. The increases in the demand for money tend to be satisfied by a greater quantity of money. If that is so, the renting of money or, interest, would tend to remain steady, to fall or to rise. Anything is possible in any unexpected way. In short, this big dipper effect, even if it is on a downward slope, does not set any reasonable expectations on the horizons of business. 18.

In the case of a deficit financed by the private sector, we can contemplate it from 2 perspectives which are not dissimilar: one from the traditional monetarist perspective which states that the money supply remains steady, and the

other, which we have indicated, that states that the *relative* money supply (caused by the *diversion effect*) diminishes.

We acknowledge the effects of different paces in money demand for all deficits, whatever their financing, which according to the traditional approach, produces a rise in the price of, or renting of money. In our situation of *relative supply*, that effect would be even more intense which would make loans more expensive and drive out investment. If we add this perverse rise in credit rates to the yo-yo effect, the possibility of creating horizons of reasonable expectations becomes faint. 19.

If consumption means an act of buying something and forgetting about it (because of its lack of importance), which depends on permanent income, what do we make of a wedding which is, in principle, for life, such is investment. It is a wedding with a protector thrown in, which is the bank, to whom the loan must be repaid over the long term with an interest rate that rises and falls erratically. We can state that permanent aggregate supply and demand depend on permanent real interest to a much greater extent than on absolute real interest. 20 What we mean by this is that although there is a falling interest rate, whether because of a deficit financed by new money or because of a compensatory monetary policy, it is permanent interest which has greater influence on investment. And what is permanent interest?

### **Permanent Interest**

If we accept that fiscal activity on the margin causes distortions in aggregate demand, we must nullify its activity and once nullified let the money market intervene freely. Growth in real production demands an increase in income payments. That increase allows greater demand to acquire the greater production. In a dynamic sequence, a higher demand for transactional money will occur and simultaneously greater money supply in real balances which satisfy it (which necessarily will not reduce interest to zero). For this monetary growth, caused by the monetary authorities, to generate optimal reasonable expectations, it must be steady and above all regular and proportional to an expected and moderate rate of real growth. Hence permanent interest will be that which equals that demand for money with that money supply, both caused and produced by the real, restrained growth of production.

The reality of the situation is that when the money supply is established in a fixed way, the interest rate usually moves about according to the yo-yo effect. This adverse effect confirms our suspicions about the negative effects of fiscal

policy. 21 If the interest rate goes up and down it is because one or both of the blades of the scissors are trembling: the money supply and/or the demand for transactional money. The former through deficit financing and the latter through the income multiplier effects intrinsic in fiscal policy. This yo-yo effect produces a state of anxious uncertainty among lenders and borrowers-investors. The latter will not know for certain if they will be able to repay loans with erratic interest rates.

The lenders, on the other hand, will find themselves at the mercy of the uncertain expectations about the interest rate and from the permanent pressure which comes from the eternal borrower, the public sector, which continually diverts savings. The lenders are also borrowers as in the case of the banks who will be reluctant to generously hand out credit. It is very likely that it will be rationed, and when this happens, as Ben Bernanke and Gertler said, production will slow down.

But it is possible that the authorities wish to, and are able to maintain a permanent interest rate which is basically what matters. Since it is a question of renting money or the price of money, the authorities should act from the other side by varying the money supply. If they vary it, the plot could become flooded or dry up whereby the discretionary control of the money supply is lost. That is more or less what Poole wanted to say in 1970. However, what we are not sure of is whether, according to the monetarists' perception, this always generates inflation. A depression could be caused if the money supply is reduced.

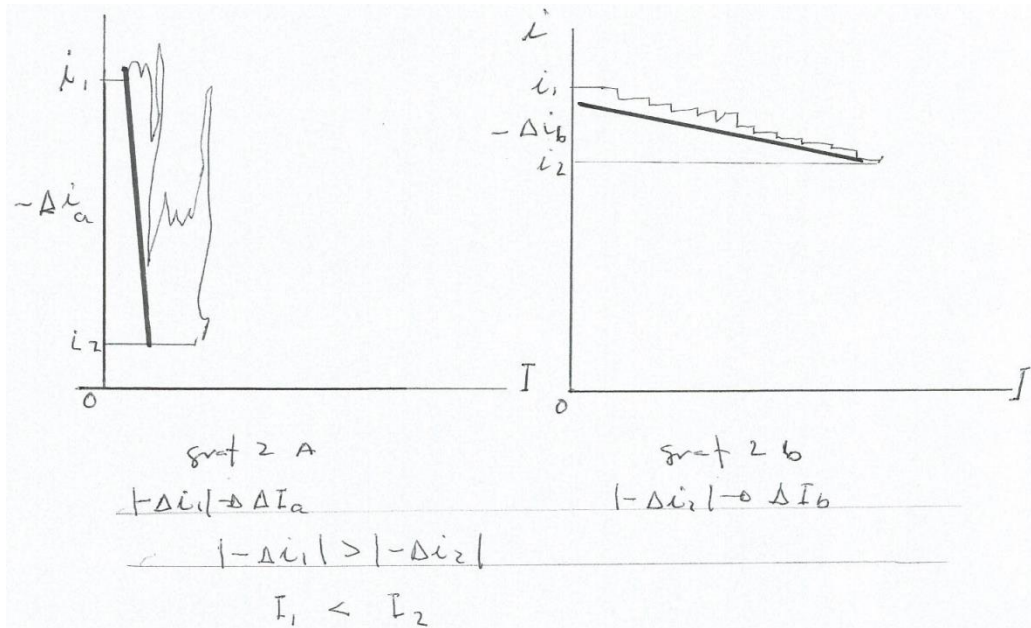
In the case of a deficit financed by the private sector the interest rate will rise. The monetary authorities will intervene to force it down through a policy of sourcing money supply. It is true that in this case it will cause inflation. In the case of a deficit financed by new money, the opposite could occur, since there will be more money than demand, at least in the short term. This is a situation where paradoxically the real financial balances of the system are scarce although the authorities see them as plentiful. The monetary authorities will apply a contractionary monetary policy and will cause a contraction in production.

If we acknowledge the importance of a permanent, adequate interest being constant, fiscal policy avoids that permanence. But if the monetary authorities intervene to avoid it, they cause uncontrolled tides in the money supply and these affect production and income unpredictably.

Graph.2.



P



Graph 2.A.

Graph 2.B.

In graph A interest has fallen to levels much lower than those in graph B but in an unequal yo-yo effect way. However in graph A, investment's response is weak and is more elastic in graph B. Business trusts in a permanent, stable interest rate for the present and the future in graph B which stimulates greater confidence in investment. We can establish a dependence or functional relationship between investment and the interest rate in the following way:

$$I = f(\hat{i}/\sigma_i^2)$$

where  $\hat{i}$  is the average interest rate and  $\sigma_i^2$  the variance or deviations from this average interest rate.

**Schedules**

Fiscal policy has its schedule, monetary effects have another schedule and compensatory monetary policy also acts with its own timing. A schedule is an agenda of events which link up in time and signal expectations in demand which are also temporal. This process will only be temporary and will influence transitory aggregate demand (in an unexpected way), not permanent aggregate demand and in the long term, will not influence production. Fiscal policy is set inside a complex institutional process within a legal framework. The problem will have to be diagnosed: recession and /or inflation, a budgetary plan prepared through comings and goings between each administrative unit until *the great budgetary document* is drawn up. Then it will have to go to powers of legislation to be approved and after its subsequent birth as a law, it will finally have to wait about another year before it is implemented. Fiscal action is vast, moved by thousands of hands like a game of billiards with thousands of players; consumers, investors, banks and the stock exchange, with an infinity of balls in the form of countless taxes and public spending. The table may be lop-sided or not; budgetary deficit, surplus or equilibrium. It is difficult to bet on who will win without any rational expectations criteria. The most serious thing is that it is a gamble taken on the move. In billiards, the balls must stop moving before we can take

a shot. From when a budget is established or designed until the game begins (fiscal implementation), the balls will have changed their position. And the cue will have to strike moving balls. It is an impossible game. The schedule, *its* schedule will no longer have any point. What about the monetary effects that occur after the fiscal schedule, which block the initial objectives: inflation control and/or an increase in production.

Let us imagine that at the same time as these perverse monetary effects occur, an active compensatory monetary policy is implemented: money supply variation, reducing it when the deficit is financed with new money or increasing when the deficit is financed by the private sector. Monetary policy has a schedule which does not tie in with that of fiscal implementation. The variation in real balances causes, in the first phase, adjustments in portfolios and makes the price of assets and interest rates change. In the second phase, the different interest rates influence aggregate demand and this, in a third phase influences production (that is, if it does indeed influence it). This chain of links in the phases of monetary policy is also subordinate to the cause effect, which is fiscal policy. These uncoordinated chronological schedules form the ultimate theoretical argument which explains the failure of fiscal policy. The lack of coordination between the monetary policy schedule and the fiscal policy schedule, both in their design and their implementation prevents business from establishing permanent aggregate demand.

**Conclusion**

We believe in the existence of permanent demand which has its origins in Friedman's permanent income and, why not, in Modigliani too. Permanent income implies an intuitive and rational calculation of that income over an intuitively long period of time. What is of importance to us is the reaction, in general, of production, income, employment and/or price stability in aggregate demand. Productive activity, and in particular, that of investing, implies considerable cost and risk. This can be avoided if

the estimation of aggregate demand is considered permanent with *desires of achieving eternal dimensions*. The transitory variations in demand are satisfied temporarily with variation in production stocks. Domestic economies and business behave naturally in a stable way, that is, with desires of permanency. Consumer demand is greater and is, moreover, very stable. Capital demand for replacement investment is proportional to capital stock and behaves in a steady manner (a phenomenon which macroeconomics dedicates very little attention to).

Another thing is net investment which is said to be variable. It would not be so if there was a permanent, stable interest rate. This investment, moreover, depends on the variations in income and production or more accurately, on variations in sales, a relationship explained by the accelerator. It is preferable to say that net investment depends on the permanent variation of sales or income. There is nothing more certain than stating that production depends on permanent demand, which depends almost entirely on permanent income. It is better to have a steady state of mind, without nerves, in business, than an *entrepreneurial animal spirit*.

In order to explain and evaluate fiscal policy, we must ask ourselves the question, "Can politicians really command?". Let us make public the existence of the Leviathan or the Machine, which declares that the state is a powerful, mechanical, impersonal force which cannot be governed by politicians and therefore renders the drawing up of a budget impossible. This denial rules out the roots of the existence of fiscal policy. Our second basic point assumes the theoretical possibility of fiscal policy but not of its success. This activity implies aggressive executive or political activity on the budgetary margins: variation in taxation and/or public spending, on a previous neutral budget or inertial budget which we call *passive budget*. A passive budget is the integration of taxes and State spending derived from ordinary, cultural and social needs of a society which, by inertia, repeats a previous budget without the discretionary activity of fiscal activity.

Tax or public spending manipulation can neither be steady in time nor in quantity, nor by sector, nor even in a macroeconomic direction. It is fundamentally irregular and as such, its effects, even those studied theoretically and separately (taxes and spending) cause somersaults in income and derivatively in aggregate demand. These somersaults have nothing to do with the idea of permanent aggregate demand which business contemplates. This is the main conclusion, the unequal, arrhythmic effects on aggregate demand. The multipliers which we study, which basically concentrate on deficit, multiply nominal income but not real income, which means that they cause price rises.

### Notes

1. Hobbes initial purpose when he arrived on the continent was to transform political science into an objective science such is physics. In fact, his first contacts were with European physicists. Out of this came the idea of force or more accurately vector force which defines Leviathan.
2. The multipliers represent an inertial, mechanical magnitude of economic reality. It is unavoidably simple mathematics, mathematical and false, whose existence has deceived economists.
3. The Crash of 1929 meant the demolition of the stock market and caused panic. The economic players turned to the banks, withdrawing their money and leaving some in bankruptcy. The surviving banks increased their reserves and the money supply diminished. Credit became difficult to obtain. In brief, part of the monetary circuit, that is savings, suffered a heart attack and the money supply diminished. Keynes saw intuitively and demonstrated that it was necessary to increase public spending by whatever means. It was an exceptional remedy in exceptional circumstances. The mistake was believing that this open heart operation to insert a by-pass was valid for any country at any time.
4. This is the dictatorship of ethics and value judgements. There are no objective criteria to evaluate ethics and value judgements, despite the works of Rawls and Harsanyi. The most efficient dictatorship is one which imposes itself with indisputable, socially pre-established values criteria.
5. The economic homo of A. Smith is not uncompromising, but is defined. However, the social homo is of an ambiguous identity. The fact that taxes are raised violently and not pacifically shows this.
6. To a great extent, the conception of The Leviathan is of a force which governs human activity and to a greater degree social activity. The idea of the The Machine implies complexity, energy for its functioning and the result of something which is different from the elements which make it up. This result are the suits and other fanciful decorations which appear, in our example of the computer, on the screen.
7. Formally, the State is a legal and institutional suit of armour in a democratic state. In itself, it is not the force which Hobbes attributes to the State. Those tapping fingers are outside The Machine, what they do is put into print its message and force. Since they find themselves outside, we cannot state that taxation and public spending, the presumed *will* of the State, is fiscal policy.
8. In real terms, aggregate supply does not exist a priori, instead it builds up as it gets swept along by permanent aggregate demand. On the other hand there is a link between the input suppliers and companies which produce finished goods. They all rely on the stability of permanent aggregate demand.
9. The stability of aggregate demand is supported with the criteria of permanent income for 3 reasons ; first, because consumption is very stable, practically lineal if it depends on permanent income. Secondly, because the decline, through use, given a volume of capital, is logically stable and proportional. Thirdly, because the accelerator mechanism exists if we acknowledge permanent income and its permanent variation.
10. What we basically are interested in studying is that public spending is an important part of aggregate demand in modern times, and that pert, in the short term, is steady and in the long term its growth is also steady. In recent times it has slowed down once it has reached gigantic proportions. Wagner's declarations, Musgrave's studies and Wiseman and Peacock's hypothesis are acceptable to us without going into its organic composition or causes. However, in order to explain it, universal integration which we apply in our mechanistic version of The Machine is valid.

11. In this point we should remember that Laffer was worried that the influence of a reduction in taxation would cause workers to increase the number of hours worked. But, on the other hand, we believe that it also influences aggregate demand and income, although this was not Laffer's initial purpose.
12. The theory of reasonable expectations concentrates on the prudent, expectant activity in the face of inflation and derivatively, in the defence effects in the face of monetary policy. But we can easily apply this to our purpose of defining aggregate demand. We pose the following question about these effects, "Is it not true that anyone who demands goods supplies money?" so aggregate demand is an intelligent version of the money supply. "What money supply?" The permanent money supply which will be directly related to Friedman's version of the steady speed of money circulation.
13. The accelerator model is much more stable and mechanical when sales or profits occur constantly over a long period. These variations imply the existence of stable permanent aggregate prospects. Its combination explains the economic dynamics in Samuelson's model which does not determine a level of stability or income and permanent aggregate demand. We could object to this by saying that the accelerator does not occur in all periods since investment is slow and uncertain for business due to its cost and lengthy financial amortization. We should add that the impact on income is not necessarily real but nominal and in the long run, real income may be more stable as Samuelson suggests.
14. The political problem, or the fingers which operate the computer in our "Machine" also control the money printing machine without it having anything to do with monetary policy. At this point, political and social necessities invade technical monetary criteria.
15. The uncontrolled creation of money caused by deficit monetization strongly increases liquid balance monetary demand for transactional purposes. Individuals and, especially the whole public sector, the community at large, urgently cries out for the creation of money to preserve the capacity to pay. Public spending must increase in terms of inflation, while the deficit rises and a continuous process of creation of money and inflation occurs. Nominal income and nominal aggregate demand always vary transitionally, period after period and it will be impossible to define a stable aggregate demand perspective.
16. In a perfect market, with automatic information and infinite wisdom, individuals immediately know future falls in exchange rates and their influence on external aggregate demand. This confirms that it is impossible to define stable demand when a deficit is financed by the foreign sector.
17. It is possible that the diverted money supply, as well as budgetary finance are both produced in a regular way. We may be inclined to think that such regularity occurs normally in the case of a passive budgetary deficit without any aggressive fiscal activity. In this situation there will be permanent aggregate demand, at all times less than its potential if there were no deficit.
18. We refer to nominal interest stating that it is variable. If we were to consider the real interest rate, the variation would be even greater since the variation in prices and monetary balances are not only different but out of step in time. Returning to the nominal interest rate, it is impossible that this is stable, despite all the monetary policy accuracy and manageability in the world, it remains practically impossible to provide money supply at the same level and at the same rate as the demand for money is growing.
19. It is preferable to have a permanent interest rate which is slightly high than one which goes down arrhythmically to very low levels. When the interest rate goes up and down like a yo-yo it creates nervousness among lenders and borrowers and gets in the way of credit supply. Professors Ben Bernanke and Mark Gertler also expounded this idea in their study on financial intervention (1983-1988). This work on interest and financial intervention as well as the origin of macroeconomics can be found masterfully described by the Spanish economist Germán Bernácer (Alicante 1883-1965) between the years 1916 and 1926.
20. Interest and financial intervention, which are of such importance to GDP, are influenced to an enormous extent by the level of accumulated public debt. Given an amount of new issue financial assets on the financial market, public debt deprives monetary disposables from these assets. This argument is not exactly the same as public debt or deficit for the period. Accumulated public debt can saturate the financial market and hinder the transfer of savings to investment, a transfer which is rationed by interest.
21. It was Lee Iacocca, the Managing Director of Chrysler Corp. Who severely criticised the yo-yo effect. We cannot malign the yo-yo effect enough. He stated that its negative effects on industry were much more serious than those of high interest rates. It was impossible to plan ahead in such conditions, he said. His words from his book "Iacocca, Biography of a Winner (pp.420 Spanish version) "However damaging a 20% interest rate may be, it is much less than the so-called yo-yo effect. Between the 6<sup>th</sup> of October 1979 and the same month in 1982, interest rates went up or down on no less than eighty six occasions or one variation every 13.8 days." With these words we shall rest our case on permanent interest rates which may be slightly high but are preferable to low, discontinuous and erratic ones. This statement can be found in my article "Aggregate Supply as a Function of Permanent Aggregate Demand".

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