teoria neoklasike është ajo dominante. Sipas kësaj teorie, duke qënë se shumica e mallrave dhe shërbimet prodhohen me kosto më të ulët dhe vijnë nga vende si Kina apo vende të tjera ku kostoja e punës është tepër e ulët, mënyra më e mirë është të reduktohen kostot e punës duke reduktuar përqindjen e kontributeve shoqërore dhe shëndetësore dhe, duke limituar rritjen e pagave.

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THE KEYNSIAN CROSS MODEL AND ITS DERIVED ECONOMIC MODELS ARE WRONG

Alqi NAQELLARI
As.Prof.Dr (Republic of Albania)
In.Prof.Docent (Republic of Northen Macedonia)
Mediterranean University of Albania
Alqi.naqellari@umsh.edu.al

ABSTRACT

The object of this analysis will be the IS-LM Model (IS curve) derived from Dornbusch, Fischer, Starts(D,F,S) and the Keynesian Cross, from which this model is derived. This model will be analyzed: firstly, related with the Cost-Volume-Profit Model (CVP) and secondly with the investment curve on the Keynesian Cross. The CVP model does not aim to determine the equilibrium level of a product, but to determine in which unit of production, the profit is zero. Also, the purpose is to determine how fixed and variable costs are transferred to the cost of the product. In consideration is taken a manufacturing sector, costs of producing a particular product, which has a certain value, a use value, a certain utility. The Keynesian Simple Expenditure Model is the opposite of this model; it is not a production model but a consumption model, it does not create a product but destroys the product. Through this model, macroeconomic equilibrium is created. On the Y axis are the autonomous costs and revenues indexed by the marginal propensity to consume. On the X-axis is real GDP. The equilibrium is still narrowed down to two investment-saving elements. These limitations make the model incorrect. The model does not represent the real balance of the economy. It is inapplicable. From its application the conclusions are incorrect. This has also affected the IS curve model. Investments, in this model, are taken not autonomously but depended to interest rate. The conclusion of the analysis is: the Cost-Volume-Profit model cannot be fitted to the Keynesian Cross model. Adaptation derives an incorrect equilibrium model, and consequently, models built on this basis are also incorrect. Also incorrect are the conclusions drawn from the analysis of these models. The method used is the method of analysis and synthesis, of comparison, statistical methods, etc.

KEYWORDS,

investments, equilibrium model, IS-LM curve, AD-AS curve, Keynesian Simple Expenditure Model, loans, deposits, GDP, etc.

1. INTRODUCTION

The IS-LM equilibrium model was originally built by Hicks-Hansen[4]. These authors constructed the model based on the savings-investment indicators used in the Keynsian equilibrium model, and the real GDP indicator. Their aim was to observe the impact of monetary policies on the economy, using the Keynsian model's conclusion that the economy is in equilibrium when I = S.

The first indicator is the Savings indicator, which we identify with Deposits in national currency. It is denominated in national currency in order to see the effect of the Central Bank's monetary policy that affects the monetary market through the base interest rate (REPO). The increase in deposits is related to the growth of the credit base, so the larger the amount of deposits, the greater the possibility of lending, and the opposite, the smaller the amount of deposits, the lower the possibility of lending. The savings indicator, according to Hicks-Hansen, has a positive relationship with the income indicator (Y). This link is reflected in the IS model they have built.

The second indicator is the Loan indicator that we identify with the Investment indicator. This indicator is also taken in national currency (All) in order to see the effects of the Central Bank monetary policy. Loans are linked to increased output because they are linked to increased investment. Increased investment increases capital stock. Increasing capital stock increases output. In the Hicks-Hansen model, the investment indicator was taken with a negative relation to the interest rate.

This model, despite its limitations, which are not the subject of this study, is more representative of the monetary policy effect, compared to models built by other authors.

This paper will analyze the IS Model built by Dornbusch[5], Fischer[6], Startz[7].

The idea of this model was taken from Keynes's General Theory, published in 1936. This idea was developed by other authors such as Dillard, Hansen, Samuelson, etc., and was built the Model, called the Keynesian Simple Expenditure Model, or Keynesian Cross. This theory and this model, along with classical theory, have been studied and continue to be studied in all countries, and in all universities of the world. Hundreds of studies have been done based on this model, studies are underway and studies will continue. This paper aims to prove that the Keynesian Model of Equilibrium, built by Keynesians on the basis of Keynesian theory, is untrue, and consequently the models based on it are wrong.

The Keynesian Equilibrium Model and the theses raised on it form the theoretical basis for supporting government spending. In this theory, government spending is just as important to the growth of the economy as investment.

The paper notes, that this is not true, but it is required to be true by applying the

4 John R. Hicks (1904-1989) and Alvin Hansen (1887-1975), Hicks and Hansen's theory, is known as the Hicks-Hansen theory of interest. They have built the IS-LM macroeconomic equilibrium model.

5 Rudinger Donbursch. Co-author of the text "Macroeconomics". Eleventh Edition.2011

6 Stanley Fischer. Co-author of the text "Macroeconomics". Eleventh Edition.2011

7 Richard Startz. Co-author of the text "Macroeconomics". Eleventh Edition.2011

Keynsian Expenditure Model, which, in a growing economy, assumes absolutely always the total expenditure (AE) curve, below the total revenue curve (Y). Government spending is necessary, but to apply a new model of equilibrium, which truly represent the market and the economy. On the basis of the analysis comes to an important conclusion; The Keynsian model is flawed, improperly constructed, out of economic logic.

It should simply remain as an effort, as a good wish, to create an equilibrium model. It has not been applied to any country in the world because it has so many abstractions that it makes the model wrong and not representative of the economy. We have not seen any such model, built with concrete data on the economies of different countries. This model should remain in the history of economic thought because has come the time for a revision of world macroeconomic thinking, revision of monetary policy, in the context of financial markets of 21st century.

2. WHICH MODEL WAS CONSIDERED TO CONSTRUCT THE KEYNESIAN CROSS MODEL?

In General Theory John Maynard Keynes did not build any Graphic Model, did not build any figure to reflect the conclusions of his ideas. He has done some analyzes and used some common mathematical formulas, often expressing the same indicator in two forms but interpreting them as two different indicators, or interpreting one indicator in both microeconomics and macroeconomics. We will analyze Keynes's General Theory in another study. Here we will focus on the models built by neo-Keynesians after him that have been in dozens. Neo-Keynesian models are constructed according to the judgments of different authors, in their own way of interpreting Keynesian concepts. Generally, they have taken into account Microeconomic models. They have extended concepts of microeconomics to macroeconomics, in a static way, according to the interests of the purpose they had to achieve, in support of the thesis they wanted to prove. Keynes did this first with analysis and some simple mathematical formulas, then he was followed by other economists with graphical models.

In Keynesian theory the main economic model is the Keynesian Cross Model, or the Simple Expenditure Model. The model assumes that when AD (aggregate demand) = AS (aggregate supply) the economy is in equilibrium, and this is reflected in curves I and S, when I = S the economy is in equilibrium. A number of other models derive from this spending pattern. From the Keynesian Cross Model is derived the Aggregate Demand Curve Model, in the AD-AS Equilibrium Model. Derived the IS Curve, in the IS-LM equilibrium model, according to D,F,S. Is derived the IS curve from the equilibrium of I and S according to the Hicks-Hansen Model. Is derived the IS-LM model from S-I and NX, according to Mundell-Fleming.

The problem is: where are based the other post-Keynes authors who built the Keynesian Cross Model? Were they wrong in relying on a production model? What are the features of this model? Why can't a consumption model be applied based

on a production model? What are the mistakes? Why can't interest rate impact autonomous investment, etc?

2.1 What is a CVP Model?

In our opinion, to building the Keynesian Cross is used the Microeconomic Model of Total Cost Curves, Total Income and Total Product. This is a mistake that has had negative consequences on economic analysis and conclusions, at all times, since its creation.

The Model of Total Cost Curves, Total Income and Total Product are analyzed on the topic Cost-Volume-Profit or CVP. This analyze is called; dead point analyze, break point analyze (BEP, Break Even Point) or parity point analyze. Here, in these analyzes are determined the reasons why it serves, and what are its advantages.

(Salvatore D, 1989. Pg.364). "Cost-volume-profit or dead-point analysis examines the relationship between total incomes, total costs and total firm profits at different levels of production. Cost-volume-profit or dead-point analysis is often used by business executives to determine the volume of sales required by the company at the point of death, and the total profit and loss at other sales levels ".

This model serves managers in their current and prospective work. Specifically through this analysis:

- Managers determine production units where total income equals total costs, where economic profit is 0. -To look how total costs vary in different production volume alternatives. - Determine for each unit of production the total income, total expenditure and total profit. - Determine the unit of production where profit is maximized, by the difference between total income and total expenditure. - Determine fixed unit costs, TFC /TC ratio, TC/TVC, DOL operating lever indicator, etc. - In terms of average costs determine price, production method, production structure, distribution channels etc. - Allows the firm to operate on a budget to meet production obligations. - The firm can compare income and expense indicators with those of other competing firms. - Allows the firm to continue the analysis by focusing on the most important items.

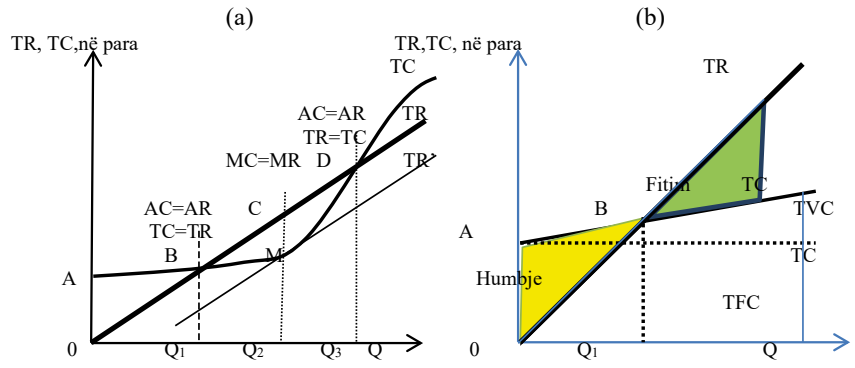
This model takes into account several definitions:

- The variable cost per unit (AVC) is assumed unchanged. It only changes if we add in the variable factors.
- Total Fixed Cost (TFC) is assumed unchanged for short-term.
- The product is supposed to be all sold.
- The price is fixed.
- Tax application is not considered.
- Market structure is taken as "Pure Competitive Market".
- The firm will produce only one type of product.

2.2 What is the BEP model from which the Keynesian Cross was built?

We construct the TR, TC curves related with Q to perform the Cost-Volume-Profit analysis (CVP = Cost-Volume-Profit).

Fig N_0.1 The curves of total revenue and expenditure. Break-Even-Point



Symbols are used in the diagram and formulas.

TR=Y=TotalIncome,TC=TotalCost,TFC=TotalFixedCost,TVC=TotalVariableCost, C = Total consumption expenditure for goods and services. Td = Direct tax. $\bar{G}$ = Autonomous government spending. $\hat{C}$ = Autonomous consumption expenditure. $\bar{A}$ = Total autonomous expenditure. $\bar{I}$ = Autonomous investment. BEP, dead point, breaking point. AD = aggregate Demand. AS = Aggregate Supply. G = Government spending as part of GDP. I = Total business investment. L = License, F = Fine. AR = Average Revenue, MR = Marginal Income, AC = Total Average Cost, AVC = Average Variable Cost. MC = Marginal Cost. MPC = c = Marginal propensity to consume. b, θ = Investment sensitivity coefficient against i. i = nominal interest rate. NBI = REPO = Base Interest Rate. IS = Investment and savings curve. The equilibrium curve of goods and services in relation with the interest. t = Tax rate. $\bar{(NX)}$ = autonomous net export.

In part (a) of the figure, on the Y-axis, are set the Total Costs curve (TC) and Total Revenue Curve (TR). On the X-axis are the output units (Q). Total Revenue Curve is for a Pure Competitive Market, where P = AR = MR. Total Revenue Curve in a Monopoly Market is a curve. Total Revenue Curve (TR) is not a right-angle halve, although it starts from the origin. The Total Cost Curve consists of, the Total Fixed Cost Curve (TFC) and the Total Variable Cost Curve (TVC).

TVC = costs that increase as production increases or decreases as production decreases.

TFC = all costs are included which do not change with the change of the product, do not increase with the increase and do not decrease with the decrease, they remain fixed.

TC = TVC + TFC. In Figure 1, point B and D are the points where TR = TC, where AR = AC, that is, total revenue equals total costs, average income equals average costs. At these two points Economic Profit is zero. These points are also referred to as points of indifference, or "Break Even Point" = dead point, parity point, break point, etc. At point B the economy separates from negative profit, while at point D separates from positive profit.

The firm that results in a positive profit must produce between point B and point D. Between these two points, there is the amount that the firm must produce to maximize its profit. This point is in that unit of production, where the difference between total revenue (TR) is greater than the amount of total expenditure (TC). This point coincides with the vertical segment, the longest between the two TR and TC curves. This point is found by subtracting a tangent to the expenditure curve (TC) parallel to the revenue curve (TR). This means that profit is maximized in that unit where Marginal Income equals Marginal Cost, or MR = MC. In this way the equilibrium of the firm is not set at point B or D, but is placed where the firm maximizes its profit, at point C, where the expenditure curve (TC) is further from the revenue curve (TR).

Part (b) of the figure shows the partial scheme of the BEP, only with point A. This part is separated to show that the Keynesian Cross, or the simple Keynesian Expenditure Model, which is a macroeconomic model, generalizes expenditure and income in economic scale, takes precisely in consideration this model, which is a Microeconomic Model.

What features does the CVP Model have?

1. It is a production model and not a consumption model; economic factors(labor and capital) are spent on a given production.
2. The Total Revenue Curve is not half angle of 90°, but an ordinary slope curve.
3. The Y-axis reflects Total Revenues and Total Costs in cash, while the X-axis reflects units of production rather than cash.
4. The space from the X-axis to the point of intersection of TR with TC represents; on behalf of expenses, subtraction of total fixed costs and variable costs; on behalf of revenue, production multiplied by fixed prices.
5. In zero production units, there are fixed costs only, while in every other production unit there are fixed costs and variable costs. This means that output growth is not created by multiplying fixed costs by a multiplier. Here we can calculate an indicator, the amount of total costs in relation to fixed costs. Total costs over fixed costs give us total costs per unit of fixed costs. We can name this indicator as we like, but that does not mean that production is increased by turnover, but that production is increased by the increase in variable costs. So even at BEP (TR = TC) point there are fixed costs and variable costs.
6. In this model, where the firm results in profit, the total expenditure curve should always be below the total revenue curve. Absolutely TC should be smaller than TR.

It is precisely these features that make it impossible to apply this model to the equilibrium Keynesian model.

2.3 Defining the Concept of Fixed Costs.

It is very important to classify Fixed Costs by different authors. The classification of production costs is done in several ways. These definitions have evolved a little over time, as have the operations in accounting. The classics, the Marxists, the Keynesians, etc have spoken of the expense. For expenses studies and classifications continue till today. They are generally grouped: by the way they are spent on product costs, by surplus value, etc. We will present these concepts according to different authors, because interpretation is important in building graphs and in determining the unit where profit is maximized.

Marxists have analyzed expenditure in order to determine the source of the surplus value. They have defined living labor and materialized labor and have determined that the surplus value, or profit, derives from living labor and not from materialized labor. Materialized labor, in the form of tools and objects, is putted into production and exits from with the same cost. In this way the only source of profit is the living labor. Other economists differentiate expenditures into fixed and variable, where labor is included in both. This difference of expenditure grouping has its effect on the determination of the derived costs such as AVC, AFC and MC, on the basis of which a series of economic analyzes, are performed.

Below we will quote some authors. Their determinations on fixed costs and BEP.

Some authors call the point where the revenue curve intersects with the expense call the dead point.

"Level of income at the point of death: after referred to as the level of equilibrium income; the point at which consumer spending is exactly equal to income. This is often illustrated by the point at which the consumption function intersects the line at 45^{0} angle, in the income and expenditure model. Above this point consumption is lower than income, meaning savings: below this point consumption is greater than income, meaning non-saving". (Shim K.J. and Siegel J.G.1995. Pg. 39)

Death Point Analysis. "A technique used in evaluating a decision that takes into account sales income and costs and determines the level of sales at which the business will begin to profit. If this level is well below the expected level of sales, the decision is thought to be less risky than it otherwise would be." (A Dictionary of Finance and Banking. Pg. 54).

In another dictionary the concepts of fixed and variable factors are given, but the concept related with Macroeconomic is also given. Specifically: "The costs of producing a good can be divided into two main parts. FIXED COSTS are those that remain the same for the firm even though many goods are produced, e.g. fixed capital interest, factory maintenance, etc.

VARIABLE COSTS vary with the number of units of commodity produced, e.g. raw materials for goods, labor to produce them, etc. From a cost calculation point of view, the volume point of death is the one that provides coverage of all fixed and variable costs, given a given selling price.

It is precisely in this dictionary where is explained the pattern of turning this expenditure model into a Macroeconomic model of equilibrium between aggregate demand and aggregate supply.

The point at which consumption is exactly equal to income as illustrated by the point at which the CONSUMPTION FUNCTION intersects 45^{0} line of the INCOME-EXPENDITURE model. Below this point consumption is higher than income, which is a NON-SAVING

condition; above this point consumption is lower than income, which is a SAVINGS condition (The Myth Dictionary of Modern Economics.1992. Pg.44)

"Costs associated with fixed factors are called fixed costs. Fixed cost is the cost that does not change with the change in production." (Arnold S.R. 1998. Pg.156)

The point of death. "The product at the breaking point is the amount of product in which the total income equals the total cost such that the firm earns normal profit but not economic profit." (Orley & Amos. 1987. Pg. 414)

"The Keynesian Cross. The graph containing the Keynesian aggregate expenditure line is used to illustrate the balance between aggregate expenditure and national output. The Keynesian Cross contains the essence of Keynesian economics."(Orley & Amos. 1987.Pg. 242)

"Equilibrium. The situation in which opposing forces exactly compensate each other and there is no tendency for change. In macroeconomic terms, equilibrium is achieved when the aggregate costs of national production are equal to the amount of national product produced. .." (Orley & Amos, 1987.Pg. 242)

"Autonomous government purchases are purchases from the government sector that do not depend on the current level of production and national income..." (Orley & Amos,1987. Pg. 226)

"Autonomous investments are investment costs that do not depend on the current level of product and national income..." (Orley & Amos,1987. Pg. 214).

(Lipseey G.R, 1992 ,Pg.183). "They are those costs that do not change with production; they will be the same whether production is 1 unit or 1 million units. These costs often refer to "overhead" or "unavoidable costs". The specific of this determination is that Lipsey also determines the general expense group as part of the fixed costs.

(Henderson & Poole, 1991. Pg.250) "Total fixed costs are the costs of the opportunity of fixed inputs, such as structures and machines" . The authors in this definition state that fixed costs are the release on the cost of products of fixed inputs, so fixed costs are an expression of fixed capital.

(Roger A. Arnold. 1998. Pg.155). "Fix Factor, An input whose quantity cannot be changed as output changes in the short term.".

(Samuelson A.P, Nordhaus D. Ŵ.1855. Pg.462). "Fixed cost" represents the total of dollars spent that continues even to be spent when zero output is produced. This is a sunk cost that is completely unaffected by any change in Q ... Fixed costs (sometimes called "overhead costs" or "sunk costs", represent costs that the firm has to pay even if it does not produce any products." ... "Example "fixed costs" include bond interests, rents and directors' salaries." (Samuelson A.P, Nordhaus D. Ŵ.1855. Pg.478). Authors herein in fixed costs include sunk costs, in addition to overhead costs.

(Schiller R. B. 1986. Pg.416). "Cost of production that does not change when the rate of production is changed - e. g., cost of basic equipment". The authors relate fixed costs to enterprise equipment.

(Mankiẇ N.G, Taylor P.M. 2016. Pg.370). "Fixed costs. Some costs do not change with the amount of output produced. They are caused even if the firm does not produce at all "..." costs that do not change with the quantity of product produced ".

(Brue McK.2002. Pg.421.). "Fixed costs are those costs that do not, in total, change with changes in production. Fixed costs are associated with the very existence of a firm and therefore must be paid even if its output is zero. Such costs are rent payments, interest on a firm's debt, part of the depreciation of equipment and buildings, and insurance premiums; they do not increase even if a firm produces more." The author, besides defining the concept of fixed costs, also gives some concrete names of these costs.

(BROŴNING K.E & BROŴNING M.J.1986. Pg.196). "Total Fixed Costs (TFCs) are the costs incurred by firms that do not depend on the output to be produced. These costs are associated with fixed factors of the firm that cannot change in the short term, usually machinery and equipment. They include return of own capital (depreciation), fire insurance, property taxes". In addition to the general concept of fixed costs, the author gives concrete examples of them.

(FRANK H. R. 1994. Pg.350). "The fixed cost does not change in the short term from the change in production level. ... Other examples of fixed costs include property taxes, insurance payments, interest on loans, and all other payments that the firm has contracted in the short term that does not change with production change".

(Bernier B, Vedie Louis H. 1995. Pg.76). "Fixed Total Cost. It is the sum of the costs that do not change with production, for example all capital-related costs (depreciation, interest, insurance, taxes, etc".

(Stiglitz J.1999 .Pg. 185). "The costs associated with factors that do not change with the change in production are called fixed costs". Firm will also pay: "If it does not produce or produce at maximum capacity, the firm faces the same fixed cost" .

The conclusion of all citations by various authors is: Fixed costs represent fixed factors. There is no production without fixed cost. Fixed costs are not an aim in themselves, but they are transformed into production. They are made to produce a particular product and not to consume, not to annihilate a particular product. From them is realized production, is not consumed production. It is the production first to assume this type of expenditure, no matter how it discharges its value into production. Fixed costs are those costs that do not change with the change in production. Fixed costs exist, in the same magnitude, for certain periods of time - until the full value of the facility or machinery is discharged. Fixed unit costs represent the discharge of total fixed costs in the form of quotas for a given period of time. Fixed costs are passed on production by being discharged over the amount of units produced, over periods of time that have been determined. Thus, the more units of production are realized, the lower the fixed unit cost. In this way the cost of the product generally reduces the fixed cost as well. In this group fixed costs for a given period (usually 1 year) are mentioned; annual depreciation quota of production buildings, depreciation quota of machinery and equipment, insurance quota, property taxes, land taxes, taxes and obligations excluding income taxes, annual interest rate quota, annual payment quota for Television, cleaning quotas, Chamber of Commerce registration quotas, non-production fixed administration salaries, marketing quotas, production-inde-

pendent contract quotas, sunk costs, external consultants when not affiliated with sales, different rents, heating costs, usually central, etc.

All these, and others of this nature, are collected and discharged onto production units. The quantity Q where TR = TC is found by the formula:

$Q = \frac{TFC}{P-AVC}; unitQ = \frac{TFC}{P-AVC}; unit$ This formula is derived from the equation TR = TC. We break down total revenue and expenses and we will have TC = TFC + TVC. TVC = AVC * Q and TR = P * Q. Q * P = TFC + AVC * Q and beyond Q * P-AVC * Q = TFC, Q (P-AVC) = TFC. Here TR and TC are expressed as a function of production, one through price and the other through a variable average cost. Such an expression is normal because it is a production process. Here is the total cost with fixed and variable costs. There is no gap to insert any other elements. If we divide side by side with Y = TR we get Y / Y = TFC / Y + TVC / Y, 1 = f + v. *This indicates that the realization of the revenue unit requires fixed and variable expenses, in certain ratios, f and v.* The question is Can the product be realized by eliminating one of these cost groups? The answer is no. If we exclude fixed costs or variable costs there is no production.

Production cannot be accomplished by simply multiplying the fixed costs by a multiplier.

The work in this model is a factor that materializes other factors in the value of production, in the utility of goods. Labor cannot be replaced as a factor in product creation, with consumer spending as a factor in eliminating the product. L (expense for purchasing labor) is different from C (expense for consuming finished goods). In this paper we will argue why L is different from C.

The production curve starts from the origin of 0. Thus the firm begins the activity with a loss. Constantly increasing variable costs increases production. In this way, the increase in variable costs increases production by materializing fixed costs into realized output. Without variable costs there is no production, there is no production growth, consequently no income. They grow steadily until the firm maximizes its profit.

The firm's expenditure curve cannot represent the aggregate expenditures or aggregate demand curve. It represents the amount of expenditure needed in each production unit to achieve a certain level of income. This curve is below the revenue curve. If it is high as in the first part, up to BEP, the firm loses.

3. How is the Simple Keynsian Spending Model constructed?

D, F, S aim to build the model of an equilibrium economy, considering it as a point of equilibrium, the point where the Aggregate Demand Curve (AD) intersects the Aggregate Demand Curve (AS). At this point where total expenditure equals total revenue AE = Y, also I = S. In building their model they were based on the Simple Keynsian Spending Model, or the Keynsian Cross. This model was built before them by Dillard[8] and Hansen[9].

8 Dudley Dillard(1913.-1990, 77 years). His main book, "The Economics of John Maynard Keynes," (1948).

9 Alvin H.Hansen. (August 23, 1887 – June 6, 1975), contributions to IS-LM model.

Some abstractions have been made in the construction of the Simple Keynsian Expenditure Model.

- Equal: Gross Domestic Product, GDP = GNP = Gross National Product, GNN = National Income, NI = Personal Income, PI. All of these indicators are marked with Y. With Yd the Personal Income Available is marked. It is obtained by subtracting the total revenue Y- (Td (direct taxes) + L (patent licenses etc.) + G (fines). Yd, by model, is the income that can be spent on consumption and savings, or on consumption and investment.
- Government expenditure is assumed autonomous and is denoted by $\bar{G}\bar{G}$.
- Investment costs are assumed autonomous and are marked with Ī.
- The EX-IM external sector has been eliminated.
- The monetary market, labor market, foreign market, etc. have not been taken into account.

D, F, S have included in this simple model, the effect of monetary policies, by incorporating the interest rate, turning Investment from an autonomous aggregate to an interest rate dependent aggregate. The material will also analyze the investment group, which is the basis of building the IS-LM Equilibrium Model.

3.1 What is the way of building IS curve, from D,F.S?

The authors emphasize "From equation (2) we see that an increase in the interest rate reduces the aggregate demand for a certain level of income, because a higher interest rate reduces investment costs. Note that $\bar{A}\,\bar{A}$ which is unaffected by aggregate demand, income level or interest rate, comprises a part of investment expenditure, and precisely $\bar{I}\bar{I}$. As mentioned earlier, $\bar{I}\bar{I}$ is the autonomous component of investment spending, which is independent of interest rate (and income)". (Dornbusch - Fischer-Startz, 2011). In their conclusions the authors are based on the relationships of the following indicators:

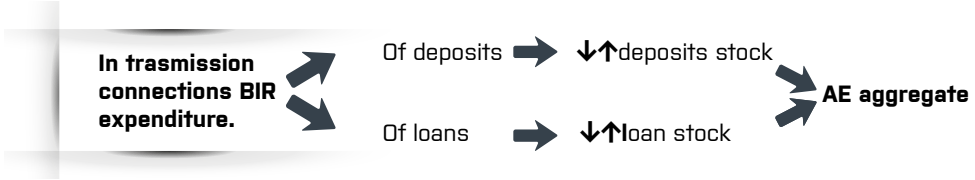
$$AD \equiv C + I + G + NXAD \equiv C + I + G + NX \text{ (equation 2)}$$
$$= [\bar{C} + c\overline{TR} + c(1-t)Y] + (\bar{I} - bi) + \bar{G} + \overline{NX}$$
$$= [\bar{C} + c\overline{TR} + c(1-t)Y] + (\bar{I} - bi) + \bar{G} + \overline{NX}$$
$$= \bar{A} + c(1-t)Y - bi = \bar{A} + c(1-t)Y - bi$$

By making this assertion on autonomous investments $\bar{I}\bar{I}$, the authors detach these investments from the growth of National Income, that is, from the growth of Gross Domestic Product. This implies that both GDP growth and GDP decline will not affect autonomous investment, so even if the stock of investment increases as output increases they will not change. They are also detached from interest rate dependency. This assumption on the independence of autonomous investments from interest rate disconnects them from the effect of central bank policies operating in the monetary market through the Base Interest Rate (BIR or REPO, repurchase agreements). Thus any decrease or increase of the BIR will have no impact on the increase or decrease of the Autonomous Investment $\bar{I}.\bar{I}.$ Its action may have an im-

pact on increasing or decreasing non-autonomous or general I investments without including autonomous investments. (Orley M. Amos, Jr.1987. Pg.214). "Autonomous investment is investment expenditure that does not depend on the current level of national income and production.".

In this way, every action of the Central Bank will have an effect on the commercial banks' interest rates, the deposit rate in All and the loans rate in All, but not on autonomous Investments. BIR decrease from Central Bank's will either increase or decrease the Deposits stock (savings) but will also decrease the interest rate on loans in All, resulting in an increase in the annual stock of loans (investments) in general. Increasing these investments will affect production growth. In this way, the Central Bank does not directly affect the growth of loan stock but indirectly, through the transmission effect, from the *BIR to i* and consequently to the loan stock.

The use of loans for direct investment is one of their uses because they can be used in other non-investment related ways. This, of course, will also affect the extent of economic growth.

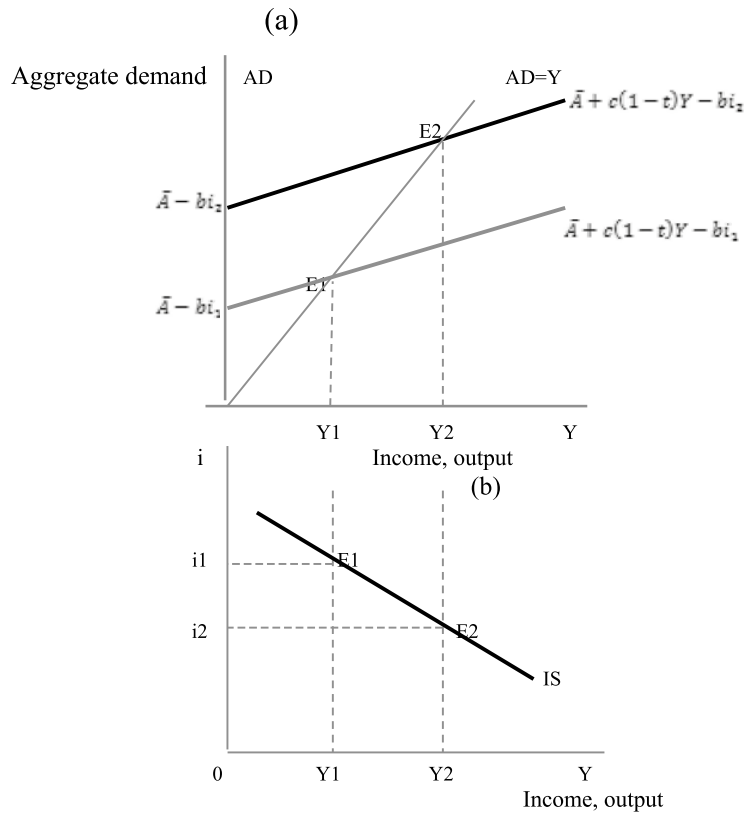


This reflects the relationship between the two policies, the policies of the Central Bank that are related to its objective of "achieving and maintaining price stability" and, on the other hand, the policies of the Commercial Banks, which are related to maximizing their profits. In this way, Commercial Banks do not always reflect, and to the same size, the change that the Central Bank makes to the REPO rate. Commercial Banks aim for their objectives and not the objectives of the Central Bank, aim at maximizing profit, expanding product markets, etc. Commercial banks decrease the interest rate on deposits more than they reduce the interest rate on loans. They maintain the magnitude of the difference between these two interest rates because it is directly related to their profits.

In the Albanian monetary market, the euro and the dollar circulate freely, covering for over 50% of total deposits and loans. Given this position and the government's need for money to cover its deficit, Commercial Banks are destined for the money, buying government debt instruments, Bonds. In this way they are less interested in decreasing the interest rate on loans in All. The interest rate on loans in euro is much lower than the rate on loans in All. This also derives from the European Central Bank Interest Rate which is less than 1.

The authors (Dornbusch-Fischer-Startz, 2011) construct this figure, which is also the IS model:

Fig.N$_0$.2 Derivation of the *IS* curve.



The figure, by the authors, was constructed by this judgment:

"For a given level of interest rate, let's say i_1, the last term of equation (2) is a constant (bi_1) and in Figure 10-5a, we can draw the aggregate demand function... but this time with an ordinance at the origin $\overline{A} - bi_1 \overline{A} - bi_1$. The equilibrium level of income earned in the usual way is Y1 at point E1. Since the level of income equilibrium is derived for a given level of interest rate (i_1), at the bottom of the figure we plot this equation (i_1, Y_1) as point E_1. This gives us a point, E_1, on the IS curve, that is, a combination of interest rate and income that cleans the commodity market." (Dornbusch-Fischer-Startz, 2011)

Once the authors have fixed this point, above the IS curve, as the equilibrium point, they ask to construct another equilibrium point. This leads them to merge the two and form the IS curve.

They find the other point of equilibrium using the interest rate. Here comes another question. Which interest rates will consider, the Central Bank BIR = REPO or ***(i)*** nominal of Commercial Banks? Given this rate we cannot include all the elements of the two curves in a graph, in a model. In our opinion, the BIR, which expresses the Central Bank's policies towards the monetary market situation, should be taken into

consideration in order to achieve its main objective of "achieving and maintaining price levels". D,F,S considers the nominal interest rate. i (nominal interest rate on loans) of Commercial Bank's is a reflection of the Central Bank's BIR but related to the narrow interest of Commercial Banks, which aim the profit.

However we take into account what the authors have taken, the decrease of ***i*** affects the increase of the loan stock because it makes them less expensive. This decrease in ***i*** does not affect I Autonomous Investments, because they are not related to interest rate and income, as the authors pointed out above, when giving the concept of autonomous investment. In this way overall investments can be increased but not autonomous investments. The authors contradict the concept given by them. They said that it does not depend on the interest rate, while in determining the equilibrium point they get it dependent on the interest rate. While building the figure, they have linked autonomous Investments to the interest rate because they point out that when interest rates decreases Autonomous Investments $\bar{I}\bar{I}$ and consequently the AE aggregate expenditure curve shifts up. Its shift upward leads to an increase in Income or GDP. Specifically they point out:

Consider a lower interest rate, i_2. Investments are higher when interest rate decreases. In terms of Figure 10-5a, this implies a high displacement of the aggregate demand curve. The curve shifts upwards because the cutoff point $\bar{A} - bi\,\bar{A} - bi$ is increased. Given the increase in aggregate demand, equilibrium shifts to point E_2, with a level of income associated Y_2. At point E_2, in panel (b), we note the fact that the interest rate i_2 implies the level of income equilibrium Y_2 - equilibrium in the sense that the commodity market is in equilibrium (or that the commodity market is cleared). Point E_2 is another point on the IS curve." (Dornbusch-Fischer-Startz, 2011).

These points that are constructed in this form according to the authors express the same relationship: the relationship between interest rates and income, when the goods and services markets are in equilibrium. In this way they build the equilibrium curve of the IS goods and services market, including monetary policies.

Interestingly, another author's (Jose De Gregorio) interpretation has the effect of monetary policy on the growth of I and the shift of its high curve. "Marking at r the real interest rate, IS corresponds to the set of points (r, Y) at which the commodity market is in equilibrium, ie, output (Y) equals total demand (A). Given that the investment depends on the real interest rate, the IS will be determined by the following relationship: $Y = \hat{C} + c(Y - T) + I(r) + G$. On the right side we have the demand for economy goods and on the left side production. Since they are equal in equilibrium, we can assume a relationship between the product and the interest rate "(De Gregorio J.2012. P. 507). The author gets the investments dependent on the interest rate. The same is true of Felix Jimenez. "The relationship between the product and the interest rate is negative. "[...] A higher interest rate reduces investment costs, so a lower savings stream is required to maintain a balance between savings and investment. Accordingly, it will be necessary to lower the product in order to restore equilibrium in the commodity market "(Jiménez F. 2006, p. 415).

The Keynesian Cross model has also been used by other authors to create the AD-AS model. Mention here Colander. Colander derives the aggregate demand curve AD precisely from the Keynesian Cross model. He uses for building the model, wealth effect, interest rates and foreign trade. Does not make any use of any concrete variable. It derives the AD curve with a negative slope. This Colander model is also wrong in my opinion because increasing the amount of money in circulation increases the price level and does not decrease it. Expansionist policies increase the price and do not reduce it. In this way, the increase in prices has the same impact on GDP as decrease of interest rates. The increase in prices is associated with GDP growth and the decrease in interest rates is associated with GDP growth. Colander in the model, also gives the multiplier effect. In this way, not only autonomous spending but also the size of the multiplier will affect GDP growth. This effect is also in the case of the Model applied by D,F,S. It is therefore necessary to give consideration to the multiplier.

What are the disadvantages of the Keynsian Cross Model, that makes it invalid.

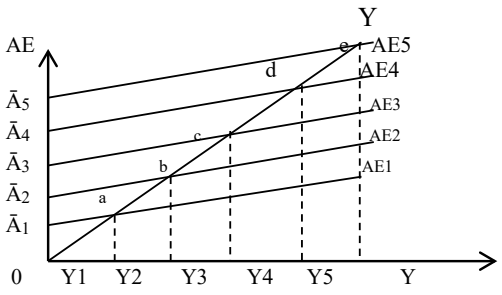
1. The Keynsian Cross model is an expense model based on a production model. Say makes this definition for the production process and for the consumption process: "just as production is an exchange which is made from the cost of production to a product, consumption is the exchange which makes a product to a pleasure" (Say JB 1803). Pg. 13.Book 3). In this way, these are completely opposite processes. The product cannot be created from destruction, much less, to grow from the function of money as a means of exchange, or as an intermediary.

2. Compared to the BEP Model; the output is not set on the X axis. On the Y-axis there is no total revenue and expenditure relative to production units. In this model Aggregate Expenditure (AE) is placed on the Y-axis and aggregate income is placed on the X-axis (real GDP). The bisector represents the equilibrium curve, with Y = AE at each point. In this model, the sbisector represents GDP expressed by expenditure (Y-axis) and income (X-axis).

3. The angle bisector is taken as the Aggregate Income curve. The aggregate expenditure curve starts, just like the fixed expenditure curve, over the Y. In this way, after the breakpoint, the Expense curve is always below the Income Curve.

This means that autonomous spending must always be increased to balance earnings. It is here that the peculiarity of this theory, of its survival over 80 years, lies. This model justifies autonomous spending, justified government spending, justified loans, justified debt, justified PPP agreements, justified concessions, etc. This growth mode is shown in figure Nr. 3. In this figure, autonomous spending has steadily increased, as the only way to increase production.

Fig. No.3 Economic growth in the Keynsian model



Source. author

On the X-axis Y revenue is set, on the Y-axis are AE costs and autonomous costs Ā, for 5 cases. Cutting the AE curve with Y (which represents the half-angle) the income is equal to the expenditure, and the economy is in equilibrium. This way balance is always achieved by increasing autonomous spending. In this model MPC (marginal propensity to consumption) is assumed unchanged and less than 1.

4. The division of total income is only made into two groups C + S (consumer spending, plus savings) and C + I (consumer spending, plus investment spending). Consequently, in equilibrium, it equals S. Investments are called inflows while savings flow.

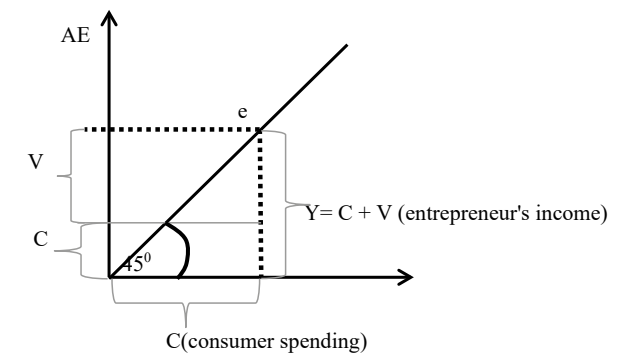
Some considerations on saving. The annual income received by economic entities is not only divided into consumption for final goods and services and savings. They go in many other directions as well. They go for investment; in debt instruments, in securities, in bank financial and non-bank financial companies, contributions to various charities, for gifts, etc. From the banks they go for direct investments in production, investments in securities, investments abroad, etc. In this aspect, also saving, which includes many voices, is a delayed consumption or a delayed investment, for the growth of the economy or in the unreal product. "What is saved every year is consumed as regularly as what is spent every year, and almost at the same time; but is consumed by a different group of people. . "... Consumption is the same, but consumers are different" (Smith A.1997.Pg.112). In this way, saving is a flow, just like investment, but a stream of redistribution. The investment is materialization directly from the firm, while the savings go to the investment with the intermediary of the bank or other entities. In this way investing and saving are both inflows and not outflows. Saving is not an immediate investment and not by investors but by users.

My concept of inbound and outbound is different. I consider the outflow of currency outside the territory, regardless of destination of use, and I understand the flow of currency from outside the territory, no matter what its destination.

In the relation between C + S and C + I we will mention some definitions of J. Keyns. Note carefully, in both of these amounts we have C (consumption costs). "Consumer spending during any period should mean the value of goods sold to consumers during that period, ..." To the best of my knowledge, everyone agrees that saving means exceeding income over consumption expenditure (Keynes MJ 1997). Pg.56). "After we have already defined income and consumption, the determination of savings, which is the excess of consumption income, flows by itself" ... defines current investment as ... "current real capital addition" ....."Is equal to what we just described as savings". "This for the period represents that portion of the income that was not used for consumption." (Keynes M.J. 1997. Pg.57). "While - says Keyns - the amount of savings is the result of the collective behavior of individual consumers, and the amount of investment is the result of the collective behavior of individual entrepreneurs, these two amounts are necessarily equal, since each is equal to the excess of income to consumption "(Keynes M. J 1997. Pg.57). It connects consumption with both expenditure and revenue, so it connects both consumers and producers. This is a completely wrong designation, because when we talk about investment, in relation to entrepreneurs, we mean spending on economic factors. With investment, as a factor, it is not consumption but the labor force, the cost of labor force that the entrepreneur has used in production, or living labor as Marx has pointed out."So, in the work process, human activity through the work tool makes a predicted change to the object of work. The process disappears into the product .... Work is joined to its object "(Marks K. 1976.Pg.248). So the work process ... "is an activity aimed at creating value for use, it is an adaptation of natural elements to human needs ..." (Marks K. 1976. Pg.251). In this way, we do not have equal amounts on both sides. In production, there is an expense of factors, a creation of consumer goods, and a consumption expense of consumption of goods, disposal, or value utilization.

The income generated by the sum C (constant capital) + V (variable capital) yields Y. This is a consumption commodity which at "equilibrium" = BEP equals the cost of acquiring it, that is, C. In this way (C + V) of the entrepreneur = Y = C (consumer spending). This way, we cannot create equations such as C + I = C + S. These equations are tautologies, which will be the subject of another study. As we said above we can build this model(F.4).

Fig. No.4 Simple model of equilibrium, production and consumption



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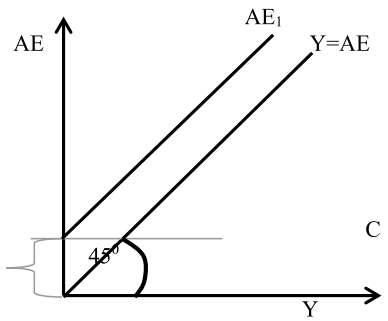
This figure clearly shows that; the whole product goes to market, and its costs include fixed costs and variable costs.

5. According to the Model, the slope of the exenditure curve is given by the Marginal Propensity to Consume (MPC). The MPC indicates how much ALL will go for consumption of the additional 1 ALL of disposal personal income. This means that the larger the MPC the higher the output by increasing autonomous costs. If we take the marginal propensity to consume 1, the expenditure curve will be parallel to the bisector, with no cut-off point. So where will the equilibrium between expenditures and income be? According to the model the product growth will be infinite. Could this be the case? Taking MPC unchanged, the only factor contributing to the growth of the economy is autonomous expenditure. Is this true? Graphically this situation is shown in Figure 5.

Fig. No. 5. Keynsia model when MPC = 1



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According to the DSF "...Thus, the equilibrium level of production is higher, the greater the marginal propensity to consume, c, and the higher the level of autonomous spending, Ā." (DSF Macroeconomics 2011, Pg 201)

6. At the base of this model is an indicator called Multiplicator. This is a misinterpreted indicator. Money in circulation plays its role as an exchange vehicle and accelerates sales. Money is not a cause, money is a consequence. It is not true to say that "there is no production because there is no money", but it is true to say that "there is no money because there is no production". Money is a consequence, not a cause. "So when we say: Selling doesn't go because money is scarce, we get the money for the cause; is a mistake due to the fact that almost all products are selected in currency before being exchanged for other goods... "We should not say: Selling does not go well because money is scarce, but because it is other products" (Say B.J. 1803. Book 3. F. 124)

Money eliminates double coincidence. But this function does not mean that it multiplies output. Money serves as a lubricant to accelerate the movement of goods. Different authors have compared the multiplier to V (velocity of money). "The values

of the multiplier in Keynesian equilibrium turn out to be closely related to the velocity of money circulation." ... "These results show that the Keynesian coefficient is only a projection of the velocity of money with a rate of magnification at a given time scale. So they can agree and replace each other to some extent"(Yougui Ŵang, Yan Xu, Li Liu·2010).

The multiplier is a mixture of two models, the consumption model C + S with the production model C + I.

The multiplier is calculated as a ratio of 1 / s, or one above the Marginal Propensity to Save. This equals 1-MPC (c) = MPS (s), 1 - c = s, c + s = 1, which means that Marginal Propensity to Consume (MPC) plus Marginal Propensity to Save (MPS) give one . That is, we have consumption and savings units for an additional 1 lek of income. Even APS + APC = 1, which means average propensity to save plus average propensity to consume give one.

In the Keynsian cross according to formula 2, of topic 3.1 we have (D.S.F. Macroeconomics 2011): Autonomous costs Ā = Ĉ + Ī + Ḡ. In the equilibrium condition AE = Y (aggregate expenditure equal to aggregate income). AE = Ā + cY, Y = Ā + cY. Y-cY = Ā, further Y (1-c) = Ā. Here Y= $Y = \frac{1}{1-c}\bar{A}Y = \frac{1}{1-c}\bar{A}.\frac{1}{1-c} = \frac{1}{s} = M\frac{1}{1-c} = \frac{1}{s} = M$. The M multiplier multiplies autonomous costs and gives us increased output, the new level of equilibrium.If you add equal parts to equal parts the equation does not change. So we can write:

$\Delta Y = \frac{1}{1-c}\Delta\bar{A}$, (D.S. F Macroeconomics 2011. Formula 13. Pg. 201) $\Delta Y(1-c) = \Delta\bar{A}$, $1-c = \frac{\Delta\bar{A}}{\Delta Y}$

$\Delta Y = \frac{1}{1-c}\Delta\bar{A}$, (D.S. F Macroeconomics 2011. Formula 13. Pg. 201) $\Delta Y(1-c) = \Delta\bar{A}$, $1-c = \frac{\Delta\bar{A}}{\Delta Y}$

.

The ratio $\frac{\Delta\bar{A}\Delta\bar{A}}{\Delta Y\Delta Y}$ according to the Keynesian model should give MPS = s (Marginal Propensity to Save). This report does not give this result, MPS (s) = $\frac{\Delta S\Delta S}{\Delta Y\Delta Y}$. This ratio $\frac{\Delta\bar{A}}{\Delta Y}\frac{\Delta\bar{A}}{\Delta Y}$ has no relation to saving, as it gives the ratio between autonomous expenditure per lek of aggregate income, or national income. Thus with this equation the whole model falls. $\frac{\Delta S}{\Delta Y} \neq \frac{\Delta\bar{A}}{\Delta Y}\frac{\Delta S}{\Delta Y} \neq \frac{\Delta\bar{A}}{\Delta Y}$,S is related to income, while autonomous expenditure Ā is not related to income. The multiplier, according to this report, shows the amount of GDP per unit of autonomous spending. "The genuine meaning of Keynes's multiplier is that of a requirement, which indicates the quantity of the national income that is needed for the realization of one unit of investment".

3.2 How is the autonomous I and total investment graph constructed, according to D-F-S?

We proved above that the Keynsian cross model is incorrect. Now we will prove that even the investment curve is modeled incorrectly.

We look at the Keynsian model linked to the interest rate.

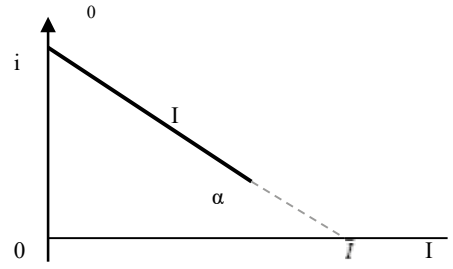
According to the authors, autonomous investments are considered as "$\bar{I}\,\bar{I}$ now means autonomous investment, that is, investment costs that are independent of both of income and interest rate". (Dornbusch-Fischer-Startz, 2011) .224. Explaining this they emphasize beyond" Now we add investments, government expenditure

and taxes, and foreign trade to our model, but we presume for the moment that each is autonomous, that means that it is defined outside the model and assumed to be independent from income. . "199.

The authors give the investment function $I = \bar{I} - biI = \bar{I} - bi$, where i is denoted the interest rate and b the sensitivity (response) coefficient of the investment to the interest rate. According to this equation, the smaller b and the greater i, the lower the investment demand and vice versa, the smaller i and the larger b- the greater will be the demand for investment.

The investment curve has a negative slope, which means that the lower the interest rate, the higher the return on capital stock and consequently the higher the demand for investment. The investment curve is as follows:

Fig. N$_0$.6 The investment curve



According to the authors, the Investment Schedule (I) shows the planned level of investment at each interest rate.

In this case tgα = b, gives the slope of the curve or the size of investment response from the change of interest rate. If b is too large for any i (loan interest rate) investment curve will tend to become very flexible. If b is small, the curve will be inelastic, so it will tend to be vertical to the X-axis.

The change in autonomous investment shifts the I investment curve, when I increases the I curve shifts to the right, and when I decreases the I curve shifts to the left.

Look here, the authors consider Autonomous Investment the investment stock required by various economic entities when the interest rate is zero. Many other authors do this as well.

Does this determination stand? This statement does not stand because the zero interest rate is a fixed rate like all others. Time has shown, especially after 2008, that interest rates can reach minus points. In this way it is not the same, and even more to equate Autonomous Investments, which do not depend on the interest rate and Investments with interest rate 0. *This is an inaccuracy of the authors.* Putting autonomous investment on the Y-axis, as it happens with the creation of the IS curve, means that the interest rate is taken 0.

The other inaccuracy in this case consists of the size of Autonomous Investments. Autonomous investments $\bar{I}\,\bar{I}$ are considered as the maximum of investment

spending opportunities. According this curve there cannot be greater demand for investment, and this is precisely determined by the zero interest rate. The zero rate is seen in this case as the limit of investment opportunities.

This finding is not true. It is untrue because the interest rate on loans is lowered by commercial banks when there is no demand for loans, so when the loan requirements are very low they are stimulated precisely by lowering their interest rate. In this way there can be no limit to the amount required by banks at zero interest rate. The maximum can also be achieved in cases where the interest rate on loans is relatively high, and this depends on the size of business requirements, the development of the economy. When the economy is in a potential product, and the status quo needs to be preserved, loan requirements in particular periods are very small, going to zero, though the banks stimulate them with very low interest rates.

This happened in Europe after 2008 when the European financial crisis came to light. The interest rates of the Securities decreased to zero and with a negative sign. They decreased in the Scandinavian countries and in Italy. The lack of sensitivity when the rate goes to zero is explained by the elasticity coefficient.

Coefficient of elasticity. An important indicator that shows the effect of interest rate on growth of loan stock is the elasticity of loans from interest rate. Lowering the loan rate to zero does not mean that businesses will become more interested in attracting more loans. This because;

The amount of loans depends on two factors.

- First, the needs of economic entities for loans and
- Second, there are the citizens' needs for loans for residential apartments or other interests.

If the economy is in potential product, the economy needs for loans are not large, so they are able to provide output growth as a function of population growth, as well as the need to apply new technologies. This is observed in Western European countries, where loan requirements are low. Although interest rates fell near to zero in 2008, this rate did not have a significant impact on loans growth. Interbank lending was stimulated, and debt instruments with negative interest rates again had no appreciable impact. In this way, loans determinant are firstly the needs of the economy and the conditions of the loans, as well as their interest rates by type.

In developing countries where the needs of economic entities are high, there is more demand for loans and consequently higher interest rates. But even in these countries if rates fall to zero, stimulation has little effect as the elasticity coefficient goes to zero.

The idea that loans will grow by lowering their interest rate to 0 is not correct. There is a certain limit below which even if it goes down there is no impact. In this way the curve becomes very inelastic. This generally leads to the "Liquidity Trap" which means that the monetary policy transmission effect of the Central Bank is lost. Lowering Repo rate have no effect on deposit and investment growth or have only symbolic effects. This effect has occurred in the Albanian economy in certain years.

We take specifically the Albanian economy, using the Investment Indicator in Lek, and the interest rates in Lek loans as well as the REPO rate;

Table N_0.2 Loans in All, REPO, Loan Interest Rate in All and their Elasticity Coefficients.

	Loans All	REPO in %	Interesit rate on loans %1	ε	ε
2008	114,051.9	6.25	11.11	REPO	i
2009	140,479.9	5.25	12.04	-1.448	1.557
2010	157,197.30	5	11.29	-2.499	-0.833
2011	188,779.10	4.75	11.17	-4.018	-8.371
2012	215,122.70	4	10.28	-0.884	-0.745
2013	219,933.00	3	9.52	-0.089	-0.118
2014	233,443.00	2.25	7.66	-0.246	-0.099
2015	240,793.90	1.75	7.79	-0.142	0.545
2016	259,547.60	1.25	5.89	-0.273	-0.072
2017	273,261.90	1.25	5.98	xx	0.734
2018	268,872.20	1	5.65	0.080	0.061

Source. Bank of Albania and Authors

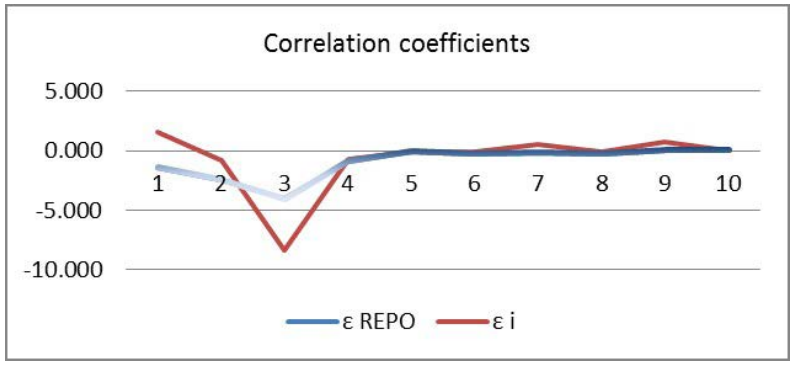


Fig.N_0.7 The dynamics of correlation coefficients.

Source. Authors

These data clearly show that the reduction of the loan interest rate to zero has no significant effect on the growth of credit stock. So the idea that we have a maximum loan in the interest rate of 0 is incorrect. The maximum may even be at a higher interest rate. From the analysis of the table data we draw the following conclusions:

-The loan elasticity coefficient with REPOs from 2013 onwards is less than 0.27, and in 2018 it is with the plus sign which means that the REPO rate has decreased, and the loan level has also decreased.

- The elasticity coefficient of interest rates of loans in lek compared with loan stock from 2013 is less than 0.1. In 2015, 2017 and 2018 it is with positive sign. This means that lowering the interest rate has led to a decrease in the level of loans, or an increase in the interest rate has led to an increase in the loan stock.

Finally the use of investment in the Keynsian cross creates a number of problems.

= When expenditures increases, it is not necessary to increase income as well, so shifting the curve upwards is not necessarily always going to affect income growth.

= Not all expenditures are directly related to production growth. When expenditures related with investment increase, production does not increase immediately because production requires a certain amount of time, especially agricultural production and seasonal production. There is not always a consistency of working time with production time.

= bi_1 is taken constant by many authors? bi_1 is not constant, it is constantly changing.

= Zero interest rate is not the end point of investment interest rates.

= Interest rate 0 does not assume the maximum planned investment demand.

= Investment is discharged on production in the form of interest quotas.

As described above, the Investment Curve has the following characteristics:

Loans that commercial entities withdraw from Commercial Banks have interest rates that range from minus rates to zero and positive rates, as such they have curves that depend on these interest rates. In this way, the Loan Curves obtained from Commercial Banks have always a negative slope, positive slope or are completely inelastic when there is an unchanged interest rate.

This is absolute. In this way, when building the investment demand curve associated with bank loans, we should never associate it with an minimum or maximum autonomous as it is done today.

= The total investment curve is represented by three segments.

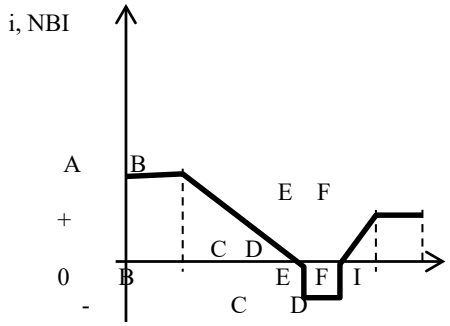
Horizontal segment (AB, CD and EF), are segments of investment with fixed interest rate, with horizontal curve. This curve shows that Entities and Banks have similar interests at this rate. These interests are generally consistent with the objectives of the Central Bank.

The negative slope segment (BC) represents the investments with a falling interest rate. In decreasing interest rates of investment we consider that there are four reasons.

- First, the reduction of economic entities' demand for loans.
- Second, finding other investing destinations of money, besides loans.
- Third, the reduction of REPO interest rates when the Central Bank verifies that the Inflation Rate is below the lower limit set by it.
- Fourth, the presence of currency in the monetary market, which consitute about 50% of loans and deposits.

The vertical segment (DE) represents that part of the graph when interest rates increase as loan demand increases. This is the case in cases of economic growth, especially in developing countries.

Fig.N_0.8 Loan Demand Curve (Investment)



Source. author

On the Y axis is the interest rate of commercial bank loans and at the same time BIR = REPO. The latter is used because it enables the graphing of all the curves we require to construct the I, S, and IS-LM models.

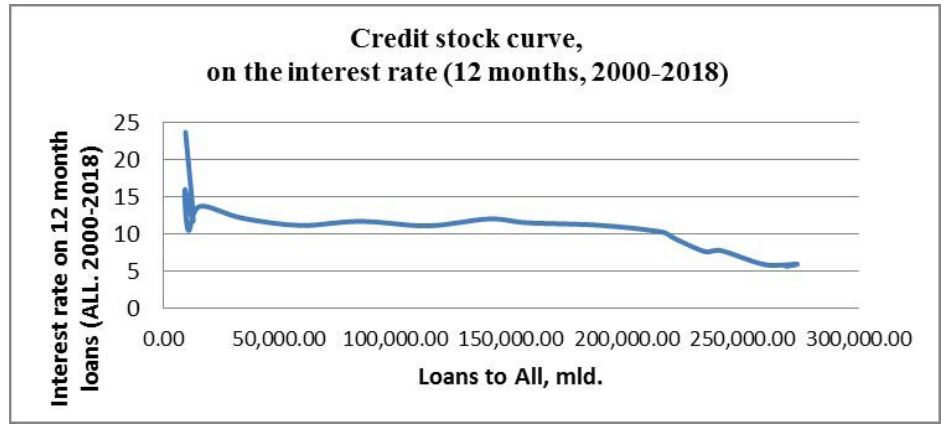
In the Albanian economy, there is not always a negative relationship between the interest rates on lek loans and their stock. This is shown in Table No.2.

Table No.2 Stock dynamics of loans (mld All) and interest rates (12 months)

	Loans,mld, All	Interest rate on 12 month loans (ALL)
2000	9,500.00	23.7
2001	12,810.00	11.9
2002	9,221.88	16
2003	10,700.91	10.52
2004	15,694.05	13.73
2005	33,720.63	12.16
2006	59,156.50	11.16
2007	84,836.43	11.73
2008	114,051.89	11.11
2009	140,479.85	12.04
2010	157,197.30	11.52
2011	188,779.10	11.17
2012	215,122.70	10.28
2013	219,933.00	9.52
2014	233,443.00	7.66
2015	240,783.90	7.77
2016	259,547.60	5.89
2017	273,261.90	5.98
2018	268,753.00	5.65

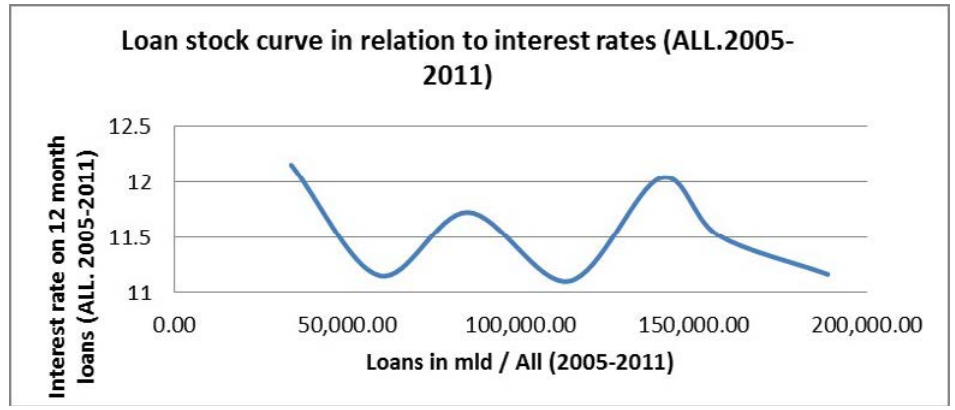
Source. Bank of Albania

Fig. No. 7 Loan curve in All, with regard to interest rate (12 months) 2000-2018



Source. author

Fig. No.10 Loan Stock Curve (mld All) regarding the interest rate (12 months) 2005-2011



Source. author

The table data and graphs show the conclusions drawn from the theoretical analysis of the credit curve. The data show that not all years have a negative relationship between the interest rate and the loan stock. This has occurred in 2003-2004, 2006-2007, 2008-2009, 2014-2015 and 2016-2017. The interest rate has increased in these years, and the credit stock has also increased. In 2018 the loan interest rate on All was 5.65% while the loan stock was 268,753.00 billion. In 2017 the loan interest rate was higher than in 2018, it was 5.98%, the loan stock was higher than in 2018, it was 273,261.90 billion. The data show that there is no regularity in the relation between interest rates and credit stock. The demand for credit, as explained above, has a number of reasons related to the economy, while the interest rate is not always a determining factor of its growth.

CONCLUSIONS AND RECOMMENDATIONS

Overall, we have provided the conclusions at the end of each analysis. Here are some of the main conclusions of this paper.

1. In the BEP model, the cut between the income and total expenditure curves does not give the firm's equilibrium point, but gives the unit of production, where economic profit is zero.
2. The Keynsian cross model taken as the basis for constructing the IS equilibrium curve is incorrect. Since this model is incorrect, even the models created based on this model are incorrect. In this way the IS curve is also incorrect. It does not represent the effects of monetary policy, the effects of the policies of the Central Bank.
3. The Keynsian cross model assumes the aggregate demand curve the same as the firm expense curve (in BEP). According to this model, this curve is always below the income curve, so that the economy needs to be in equilibrium to have autonomous spending increasing. This model justifies autonomous spending, foreign loans, government debt, PPPs, concessions etc.
4. The multiplier may not be used for the purpose for which it was created. This is an indicator of effectiveness in the production model, TR / TFC. In its calculation, the production model and the consumption model are mixed. It cannot be used in the consumer sphere. In this sphere money plays its role as a means of exchange, where the commodity circulates through money.
5. The investment curve does not start from 0 as the credit stock limit, but it can also start from the minus. Starting from the minus, the Hicks-Hansen model (IS-LM) cannot be created.
6. There is not always a negative relationship between interest rates and credit stock, but many times there is a positive relationship. In this way, the investment curve can be positive, negative, and parallel to the X-axis.
7. Lowering the interest rate on loans to All, toward zero, does not always have an incentive effect. In this situation, the coefficient of elasticity between the loan stock and the interest rate goes to zero.
8. We recommend that the Keynsian cross model be developed in the History of Economic Doctrines, and that all models built on this basis be revised as inaccurate, biased and inapplicable models.

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