# The Monetary Theory Policy of Leon Hirsch Keyserling: A Fiscal/Monetary Growth Agenda

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## *Abstract*

The analysis of Leon Hirsch Keyserling, chairman of the Council of Economic Advisors (CEA) to President Truman, and a constant critic of monetary/fiscal policy until his death in 1987 has been primarily known as a fiscalist, partly due to his chairmanship of the CEA. However, he was a strong critic of the Federal Reserve/Treasury "Accord" of 1951 which increased interest rates and, thus, decreased growth and increased inflationary potentialities. Based upon his critique of the "Accord", Keyserling did have definite and lifelong interests in monetary theory/policy. He believed in low interest rates; an adequate, pro-full employment/output increase in the real money supply for economic growth and social justice. As the originator of the so-called "Full Employment Budget Concept" (fiscal) later popularized by Walter Heller during the Kennedy/Johnson Presidencies, Keyserling also recognized the monetary implications of a full employment fiscal budget. His emphasis was in full employment growth constantly, not merely countercyclically.

This paper (1) will introduce the subject of when Keyserling was primarily known as a fiscalist; (2) discuss his fiscal analysis briefly; (3) analyze more completely his monetary beliefs and the events of his times; (4) combine his belief into a fiscal policy/monetary policy growth model; and (5) conclude connecting his analytical model into its ramifications concerning constant, full employment/output growth and social justice in relation to his constant growth analysis.

## *I. Introduction: Leon Keyserling in Historical Perspective*

Leon Hirsch Keyserling has been primarily known as a fiscalist, not a monetarist. That is because as chairman of the Council of Economic Advisors to the President (CEA) and a major author of the Employment Act of 1946 which set up the CEA, he was primarily responsible for fiscal not monetary policy. Thus, his many testimonies before the Joint Economic Committee of Congress and his Annual Reports to the President (and, thus, to Congress) pertained to fiscal--tax/expenditure-- matters. Although many of his later writings via the Conference on Economic Progress (See Appendix) dealt with monetary policy, most related to more fiscal matters, including

his early development of the fiscal policy oriented "Full Employment Budget Concept" later popularized by Walter Heller of the Kennedy/Johnson Presidencies (Brazelton, 2001,2003; Pechman and Simler, 1982). Hence, many authors, including myself, have over-concentrated upon his fiscal policy despite the fact that he was a major critic of the U.S. Treasury/Federal Reserve "Accord" 1951 which raised interest rates; decreased the growth of the real money supply so as to "de-peg" the interest rate on government bonds from the pre-1951 levels; and, to Keyserling, restricted potential output growth to the detriment of sustained, full output/employment growth in the long term. Lastly, in terms of his being known as a fiscalist, as the 1950's developed a bias against monetary policy vis a vis fiscal policy, monetary matters were often downgraded by professionals within the profession. Later, of course, Milton Friedman (Friedman, 1959), re-introduced monetary concepts back into the mainstream of economic analysis, but Friedman's monetarism differs substantially form that of Keyserling, as can be gleaned in Section III, below.

The analysis to follow will discuss briefly Keyserling's fiscal policy beliefs and institutions which are, in an inflation, rather unorthodox; and then develop his monetary analysis/policy, especially from the Conference in Economic Progress Pamphlets (see appendix). Lastly, a fiscal/monetary model will be developed based upon the Full Employment Budget concept developed during his years with CEA under President Harry S. Truman.

## *II. Constant Economic Growth: Fiscal Policy*

To Keyserling, growth-- sustained full employment growth-- was a major stress of his analysis for the purpose of maximizing employment and output, but also for the enhancement of social equity and justice. Growth, however, was not limited to counter-cyclical policies in relation anti-recessionary growth. He was, of course, for such policies as a response to a recession. But, in an inflation, Keyserling would still maintain growth rather than (as in orthodox economic analysis) decrease growth. To him, decreasing growth would decrease output, employment and, given a full employment ceiling even in a subsequent expansion, such prior losses would be lost forever. Instead, he would continue the growth of the economy using selective controls or tax/expenditure policies over inflationary sectors of the economy where relevant shortages existed. If, for example, the output of steel was in short supply (which would increase the price of steel), but other sectors indicated no shortages, the incentives to increase output (and/or, if necessary, price controls)

should be aimed at steel so as to increase the output of steel, the area of short supply and price pressures. Note that this theory indicated that inflation was/is due to supply shortages, not primarily excess demand as in more orthodox analysis (Brazelton, 1997, 2001, 2005; Keyserling, herein, 1964b, 1975, 1979, 1980). Furthermore the price increases in those sections (such as steel, autos, et cetera) were usually due to administered pricing in certain sectors of the economy due to the realities of market structures as in the analysis of Gardner Means (Berle and Means, 1968) and others. If administered pricing and supply shortages are the culprits, aim your policies towards increases in those sectors where shortages exist rather than to decrease the growth of entire economy-- the use of a rifle approach rather than shot gun approach (Brazelton, 2001, 2005).

Actually, to Keyserling, the more orthodox analysis of cutting overall demand to fight inflation was, in fact, inflationary (Brazelton, 1997, 2001, 2005; Keyserling, 1964b, 1975, 1979, 1980). In decreasing overall effective demand, output would be decreased. Such would mean in terms of micro-economics that the firm may now be operating to the left of minimum average cost. This would create a tendency to increase prices, especially in areas of administered pricing—a further increase in inflation. Also, higher interest rates would decrease investment, decrease growth, and increase borrowing costs. The former would lose output forever; and the latter would increase inflationary potentials. Thus, a policy to increase output in lagging sectors where price pressures are upward makes more short-term, long-term sense as a means to decrease inflation and at the same time increase the potentialities of increasing long-term growth, employment, output, social justice. Thus, an emphasis upon growth, not restrictions upon growth (Keyserling, 1964b, 1973, 1975, 1979, 1980). For this reason, Keyserling, instantly criticized the 1951 "Accord" between the Federal Reserve/Treasury which increased interest rates and, thus, decreased growth—a drastic mistake in policy (Brazelton, 1997, 2001, 2005; Keyserling, 1964, 1973, 1975, 1979, 1980).

Keyserling was in his Economic Reports to the President (as Chair of the CEA) and in his later Pamphlets (see Appendix) writing in terms of the "Nations Economic Budget", the "Freedom Budget" etc. (Brazelton, 2001, 2003, 2005). In those, "budgets" he was analyzing the means of maintaining full employment/output via fiscal policy where such policies balanced the federal deficit at full employment, not below. Later, Walter Heller, the chair of the CEA under Presidents Kennedy and Johnson, developed the Full Employment Budget concept which Heller later credited to Keyserling and his earlier "Freedom Budgets" (Brazelton, 2001, 2003; Pechman and Simler, 1982).

To Keyserling, there must be economic balance. This was an integral part of this full employment, price stability growth analysis. There must be on the micro level, a growth in, for example, steel to produce the supply for related growing sectors of the economy using steel. If there were a shortage of steel, the sectors dependent upon steel could not continue to produce or expand. Thus, aim economic policy at the lagging sectors. If on the macro-level, output/investment were growing at 4% and consumption were growing at 2%, this imbalance may be closed by relevant fiscal policies to increase demand so as to absorb the increase in output. The reverse would be true if consumption were growing at 4% and output/investment at 2%. There is an "Austrian" influence here which Keyserling admitted to (Brazelton, and Oral Interview, 2005). These micro-macro balances should be brought to fruition in order to maintain price stability, full output/employment growth over time. Thus, one was tied to the other.

The above are generalizations of Keyserling's main fiscal policy analyses. He also had a monetary analysis which paralleled his fiscal policy in many policy oriented ways. He did, for example, believe that the money supply should be increased in real terms, as needed; and that the increase in the money supply should be tied to the needs of the economy to maintain constant full output/employment, non-inflationary growth over time. We shall now explore this analysis in Part IV; and also in Part IV, we shall merge his fiscal/monetary analysis into a combined growth analysis of a more integrated, combined analysis. But first, let us examine the monetary aspects.

## *III. Growth: The Monetary Aspects*

Perhaps the most prominent historic key event to explain Keyserling's monetary policy views can be seen in his long-lasting critiques concerning the Federal Reserve/Treasury "Accord" (which 2 often refer to as the "Dis-Accord" of 1951). From 1946-50, the U.S Federal Reserve had pegged the interest rate on Federal Bonds at a low rate. The reason was to prevent a return to the pre-World War II depression of the1930's (Brazelton, 2001). This was, thus, an easy monetary policy. In the 1950's, however, inflation was seen by the Federal Reserve as the problem (not recession), especially often the advent of the Korean War. Thus, the U.S. government felt that pegging interest rates low was no longer a valid policy. Keyserling disagreed strongly with the end of the low interest rates and their subsequent rise as such cut back on investment, full employment economic growth and social justice (Brazelton, 2001; Keyserling, 1964b, 1979, 1980).

Keyserling did have analytical reasons for his critique of the "Accord" These can best or most succinctly be summarized by two subtitles of his Conference on Economic Progress Pamphlets, 1979,1980: "The Toll of Rising Interest Rates: The One Great Waste in Federal Budget" (1964b); and "Money, Credit and Interest Rates: Their Gross Mismanagement by the Federal Reserve System" (1980). Keyserling was for easy money, low interest rates, full employment/output and, thus, growth, over time. This, of course, made him a constant critic of the "Accord" which "de-pegged" interest rates and allowed them to go higher so as to decrease growth via higher interest rates and their effect upon investment and growth—all in a mistaken attempt to control possible inflation as discussed above under fiscal policy (Brazelton, 2001, 2005; Keyserling, 1964b, 1975, 1979, 1980). Keyserling, as discussed above, also beloved that GDP was largely a function of consumption but, to him, consumption was a function of wages (Brazelton, 2001, 2005; Keyserling, 1964a, 1973, 1979, 1980). But, if wages were to rise to increase consumption and, hence, GDP, the money supply most rise so as to "permit" such an "occurrence". The rise in the money supply, of course could not be any rate of increase but one related to the potential rate of growth of the real economy and its full employment/output needs with inflation controlled as Keyserling constantly stressed in terms of balanced growth—micro/macro—as also discussed above.

In his Conference in Economic Progress Pamphlet (1964a), Keyserling criticized fiscal policy since the Korean War as being increasingly "stingy" concerning social expenditures for the poor. He pointed out, also, that saying poverty levels were only 5% per year overlooks the fact that the 5% are not the same people every month-- it may involve 15%-20% over the entire year. (Keyserling, 1964a, p.52). He also stressed that the rise in private consumption was a function of social security and other sources, minimum wage laws, welfare, tax reduction etc. to end under-consumption and underemployment. His "American Economic Performance Budget" (Keyserling, 1964a, pp 113-14) called for a larger federal budget over time (see Part III herein). He pointed out federal debt was not a function of federal expenditures, but of economic growth and federal revenues therefrom over time – optimum and maximum growth— to maximize revenues. Thus, the debt helps to create the revenues via growth (Keyserling, 1964a, p.115). Of course, these policies influence monetary and interest rate needs. Monetary policy, thus, needed to be less regressive; and that interest payments on the debt caused by the post-Accord tightness "..if redirected to more

economically and socially constructive purposes would be enough lift out of poverty all of the families living in poverty in 1963 … through 1970" (Keyserling, 1964a, p.119).

Later, in the same year, (Keyserling, 1964b), Keyserling attacked high interest rates (tight money) specifically –"Rising Interest Rates: The One Great Waste of the Federal Budget". He indicated therein that Federal Reserve policies had increased the cost of public/private debt for no useful purpose. In terms of money for more useful expenditures, the cry is "…the money is not available to do what we can least afford to neglect" (Keyserling, 1964b, pp.2-4). Thus, concerning the Federal Reserve (and its independence), Congress should: (1) require annual rate of growth of money; (2) change Federal Reserve process in setting interest rates to decrease its absolute authority over interest rates; (3) the Economic Report the President showed deal with monetary matters, not merely fiscal matters; (4) reduce Federal Reserve terms from 14 years to 4 years – thus, increasing Presidential power; (5) move in the direction of selective controls ( in inflation) rather than reductions in the money supply which hurts many; and (6) have a better understanding of policy issues (Keyserling 1964b, p.4). Also, he pointed out that federal outlays for high interest rates on the federal debts decreased the net revenues of the States plus increased the interest rates of the States--especially in a federal system such as the United States (Keyserling, 1964b, p.7). Higher interest rates also hurt farmers, private borrowers, small business and consumer credit—all to the detriment of high growth and social justice (Keyserling, 1964b, pp 11-14). He pointed out that from 1953-63, the monetary growth was 2.9% compared to earlier years of 4.5% (Keyserling, 1964b, p.27). This helped to create a 11.8% production gap between potential and actual output (Keyserling, 1964b, p.29). But he did not believe that the needed increase in the money supply should go anywhere without priorities. For example, if technology increases growth, but also, unemployment, help those left behind by such technology via public resources such as retraining, etc; and realize that investing in a highway is a public expenditure for "increasing demand for ultimate products" rather than investing in a actual productive output and output potential—we must, as we increase demand, balanced such with an increase in supply (Keyserling, 1964b, p.34). But, instead from 1953-63, the $50 billion for paying the high interest rates went in the wrong direction to increase incomes of the wealthy, not to the industrial capacity of the nation and not to reduce poverty (Keyserling, 1964b, p.45). Lastly, as from 1953-64, the money supply increased by 2.9%, but the money supply held "Non-Federally" increased by only 1.8%. For maximum output, it should have expanded by 4.0% in order to expand its economy by

4.0%-4.5% for full employment (Keyserling, 1964b, p.45)—once again, a call for an easier monetary policy and an emphasis that money is important. He pointed out that the amount of after tax incomes of those in poverty levels had increased by 2.0% (poverty level, $3000) whereas the increase of those $200,000 had increased by 16%-- an upward distribution of income but not a better balanced economy (Keyserling, 1964b, p.48).

Keyserling pointed out therein that the Federal Reserve excuse for higher interest rates is that they increase savings, and that they slow the economy from growing too fast. However, he pointed out, the Keynesian point is that slowing income growth slows the growth of income from which savings are derived; and slowing growth and raising interest rates increase the average cost of doing business (as discussed in Part II, above) to increase inflation potentially, not reduce it. Also, as U.S. inflations have been largely due to wars, there is no proof that the inflation would have occurred without the wars. Furthermore, inflation is more caused by administered pricing, not excess demand; and administered prices are little influenced by tight money (Keyserling, 1964b, pp.56-57). Thus, tight money represses growth and is, then in itself inflationary—an argument against tight money. Thus, he again points out in his more fiscal oriented Conference in Economic Progress Pamphlet "The Scarcity School in Economics: and the Shortages it Has Wrought". 1973.

In the 1975 Conference Report Pamphlet, he points out if prices increased by 10% and output increases by 10%, there is no real net loss and to control inflation here would only reduce growth via higher interest rates and lower investment as tight money results in both, but also, misallocates money in terms of goals and priorities; persists the shortages within the economy; and increases business uncertainties ((Keyserling, 1979, pp 35-44).

In 1979, Keyserling Conference Pamphlet discussed "liberal" versus "conservative" eras and found the latter lacking in terms of both growth, full employment, economic balance and needed goals and priorities (Keyserling, 1979, pp 4-6). He stressed therein the analysis that there was little or no need to restrict monetary growth in an inflation. Instead, one could raise taxes; select expenditures for priorities and needs, not luxuries, but make certain that the money supply grows sufficiently to maintain full employment—a liberal analysis and one depriving bond holders of higher incomes via higher interest rates and the accompanying slower investment and growth (Keyserling, 1979, pp 11-13). Indeed, to him, the 1945-47 post-war II inflation was due to shortages as industry converted from war production to consumer production and, thus, needed price controls not tight money which delayed the conversion due to higher interest rates (Keyserling, 1979, p.36).

Also during the Truman years, growth rates were high, but unemployment and inflation were low, even during most of the Korean War. Thus, in terms of "guns versus butter" we need not a reduction of one to get the other, but getting both by a better planning of and for needs and priorities (Keyserling, 1979, pp.36, 42). Furthermore, low productivity is not the result of slow growth, but slow growth is the result of low productivity growth—so the economy must grow and, in terms of monetary policies, permitted to grow (Keyserling, 1979, pp.50,68). But let us get more specific.

Keyserling analyzed the effect of interest rates upon housing (and, thus employment therein and in furnishings and needed utilities, roads and related employment therefrom). In 1952, home mortgage rates were 4.25%; in 1978, 9.5%; and in 1979, 10% plus. The difference in loan payments and the total of loan payments vary significantly from 4.25% to 10.0%. This is, of course, tight money. Its effects were to dampen the housing market and its related industries and employment; slow investment and productivity growth; hurt farmers and the least able to adapt; hurt net borrowers; and shifted income upwards; increased costs which further sparked further needs of administered pricing; and caused the most recession since the 1930's and the most inflation since the Civil War, 1860's (Keyserling, 1979, p.115, 133-35; 141-44). He points out that although administered pricing is a permanent reality, slow growth and increasing costs of tight money policies "kicked in" administered prices to a larger extent then normal. (Keyserling, 1979, p.142). He points out GDP= f(M), but the real, non-federally held money supply rate of growth has been too variable—1955-79, 4.4% in money terms (0.2% in real terms); but has in some years gone to -3,3%-- all too slow to maintain constant full employment/output, non-inflationary growth and has caused recessions (Keyserling, 1979, p.132-33). At this point, Keyserling pointed out that Arthur Okun is also critical of anti-inflationary if it results in a recession, which many such policies do ((Keyserling, 1979, p142; Okun, 1979). Lastly, herein, to Keyserling, the "trade-off" is false (Brazelton, 2005; Keyserling, 1979, p.142) because "… in many key sections of the economy acute anti-inflationary pressures result from shortages contrived in the name of fighting inflation, such as the repressive Federal Budget and monetary policies and the "trade-off" itself leave us to attempt to out guess the roller coaster economy (slow growth following rapid growth—orthodox countercyclical policy) so that the tendency toward price increases is intensified and the "anticipatory" aspect of inflation that the cost increases of anti-inflationary policies cause may be a

source of the anticipations themselves (Keyserling, 1979, p.142)-- an argument against tight money.

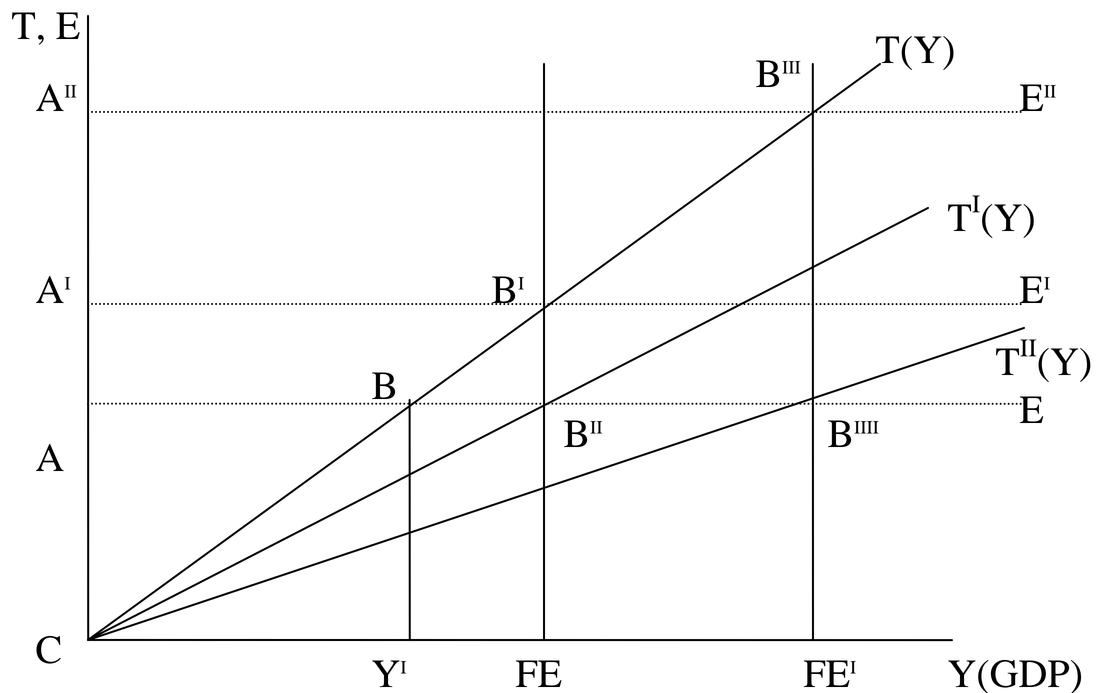
In 1980, in his pamphlet "Credit, money and Interest Rates: Their Gross Mismanagement by the Federal Reserve" (1980), Keyserling pointed out that after the Korean War, the money supply grew slower than did output potential so as to raise unemployment and slow the rate of economic growth. Thus, to Keyserling, (as discussed again in Part III), the real money supply should grow "roughly equal" to the growth in potential output (Keyserling, 1980, pp. 5-6). But, in real terms, the 1955-79 rate of growth of money was 0.2%; 1973-75; -0.5%; 1977-78, -0.9%; and -6.4% from the fourth quarter of 1978 to the fourth quarter of 1979 to cause a growth rate of 0.8%-- not a output rate equal to potential growth (Keyserling, 1980, p. 6- 8). In the meantime, prime interest rates were increasing from a period of 3.0% in 1953 to 12.5% in 1979. As a result, debt to capital ratios increased significantly from 1952-78. ….. a "roller coaster" in which one had to "out guess" the future and, as Keyserling pointed out in 1979 above, triggered price increases. Furthermore once again, the "trade off" theory is fallacious because of its policy results in higher costs throughout the system and the resultant erratic behavior of the money supply, interest rates and output (Keyserling, 1980, pp.24-29) to cause harmful uncertainties. Other nations such as Germany and Japan have had higher inflation rates than the U.S., but lower unemployment; and are invading our markets--, also not a success story for our "trade off" related policies, especially when our restrictive high interest rates squeeze out other programs and priorities (Keyserling, 1980, p.29-32).

What does the above mean in terms of monetary policy? First, there must be a constant increase in the real money supply. Second the increase in the real money supply must be at a needed rate for secular, full employment output potential growth that may vary from time to time due to labor, technology, resources and other factors. Third, in terms of counter-cyclical economic policies in the short-run, anti-inflationary policies would best be met, not by tight money and high interest rates, but by the setting of priorities, price restraints, and the closing of shortages where needed and where crucial. Bluntly stated, in my own words, price increases and the shortages of steel are more important to the economy then price increases and shortages of handkerchiefs—thus, aim policy, controls and/or incentives to the former. Also, aim the selective rifle shot at the guilty party, not the short-gun at the entire economy. The latter is unnecessary and counterproductive. Thus, we will return to part IV.

## *IV. The "Full Employment Budget Concept": A Fiscal/Monetary Policy for Full Employment.*

The "Full Employment Balanced Budget Concept" was developed by Keyserling in his concept of "The Freedom Budget" of "Nation's Economic Budget" in his numerous writings, including the pamphlets of the Conference in Economic Progress, 1954-83. This concept was later popularized by Walter Heller under the Presidencies of John F. Kennedy and Lyndon B. Johnson after the Truman Administration for whom Keyserling was chair of the CEA (Brazelton, 2003; Peckman and Simler, 1982). The concept of the fiscal "Balanced Budget Concept" will be reviewed herein followed by an introduction of a needed monetary policy to allow the fiscal budget to maintain Keyserling's goal of constant, full employment/output growth secularly.

In the diagram, we have taxes (T) and expenditures (E) on the vertical axis. Thereon, T(Y) is upper slopping for as income (Y) rises, so do taxes. T(Y) is, thus, endogenous to the model. The expenditures function, however, is a horizontal function as it is determined, ceteris paribus, by political decisions of the legislative and/or executive branches on more political considerations. Thus, it is largely exogenous. Income (or, GDP, Y) is on the horizontal axis; and the full employment level for specific periods discussed in the diagram are indicated by FE and FE′ in the respective time periods considered below:




In the above diagrammatical analysis of the "Full Employment Budget Concept" developed by Leon H. Keyserling and re-developed by Walter Heller (Brazelton, 2003), we have taxes (T), government expenditures (E) , real income ($Y^I$) and full employment level (FE). Given the functions T(Y), E, we have budget equilibrium before FE. Thus, there is a "gap" between the level of income (Y) on the horizontal axis [Y(GDP)] and full employment, FE(FE-$Y^I$=gap). To close its gap, we must either (1) reduce taxes; (2) increase expenditures; or (3) a combination of (1) and (2), above. If we reduce taxes, the decrease in taxes via the tax multiplier (-b/1-b) would get us to FE. If we increased expenditures to $E^I$, we would reach full employment given the expenditure multiplier (1/1-b). As 1/1-b > -b/(1-b), we would in reality come to T(Y)=E equilibrium slightly before FE, but herein we will ignore mathematical reality for the sake for diagrammatical convenience.

It may be noted each of the above gives us different budget debts (T<E). Originally, at FE, we had an accumulated debt of ABC. If we changed taxes and taxes alone, our new debt would be $AB^{II}C$ on the lowered $T^I(Y)$ function; and if we changed expenditures alone we would have a debt of $AB^{II}C$ on the increased $E^I$ function. Once again, for the sake of diagrammatical simplicity, we will not indicate the change in both taxes and expenditures simultaneously (option 3). In all cases, the total debt $A^IB^IC$ and $AB^{II}C$ are large enough to get the economy to FE-- no less, no more. If less,

we still have an unemployment/ output "gap" between actual output and full employment output. If more, beyond FE, we have equilibrium to the right of FE which is inflationary as demand would exceed potential full employment output (FE). But, that is not the entire problem. What about growth which takes place due to the increase in the labor supply, labor productivity and other factors?

In relation to growth, the full employment level would shift (and continue to shift over time) outwards and to the right and indicated by $FE^{I}$. At the old levels of E, $T^{I}(Y)$, we are now below the new level of full employment, $FE^{I}$. To reach $FE^{I}$, we have to, once again, decrease T, increase E, on a combination of both. If we change $T^{I}(Y)$ to $T^{II}(Y)$, we reach $FE^{I}$ at $B^{IIII}$. If we change $E^{I}$ to $E^{II}$, we reach FE at $B^{III}$ given in the relevant multipliers. The deficit has increased, but only so much as, via the multipliers, to reach the new employment level, $FE^{I}$, and its increases over time.

There are some problems with the above. First, neither private savings (S) nor private investment (I) are considered on the vertical axis. They are, of course, present in a capitalistic or semi-capitalistic economy so that the T(Y) function becomes T(Y) + S(Y) function; and the E function becomes E + I(i,r) function, probably upward sloping as I= f(y,i,r) to include the marginal propensity to invest. Herein, we will not go there diagrammatically. The reader may! Second, we have not mentioned money supply. That we must do so for our purposes herein—it is necessary to actually reach $FE^{I}$ and beyond; and to correctly interpret Keyserling who stressed the need to increase the real money supply as needed (Brazelton, 2001,2005; Keyserling, 1964b, 1973, 1975, 1979, 1980).

If we look at the above, algebraically, we have y= a +.b(y) +I + G

Where G= E-T and .b is the marginal propensity to consume and $.b<1>0$.

If we are at $Y^{I}$ and FE is $ 100,000,000 to the right and given a".b" of .20, then E must increase by $20,000,000 given the expenditure multiplier (1/1-b)=5. On the other hand, to get to $FE^{I}$, via a tax decrease, we need a tax decrease of $25,000,000 given a tax multiplier of (-b/1-b) =4. But there is a Keynesian problem here.

If Y is increasing from FE to $FE^{I}$, and given the Keynesian liquidity preference function, the transactions motive (L) is a function of income L=.c(Y) so that as Y increases, so does L. But if the money supply is held constant, interest rates rise as money flow from speculative balances to transactions balances to raise interest rates as the public sells speculative assets (assume herein, bonds) to get transaction funds (L) as income rises. Thus, without an increase in money, given

L(y), we have $y=a+.b(y) + I - .cY$ so that the multiplier is now $1/1-b + .c < 1/1-.b$, so we can not reach $FE^{I}$. However if we offset $.c(y)$ by an increase in the money supply by $.d(y)$ where $.c=.d$, we have

$$y= a+.b(y) + I + G -.c(y) + .d(y)$$ for a multiplier of $1/1-.b+ .c - .d$.

Of course, as Milton Friedman (Friedman, 1959) maintains, money is also a "superior" good held for its own sake; or as same domestic funds go abroad into foreign holdings ".d" would have to be longer than .c to offset such problems. Thus, as Keyserling stressed, the money supply must adjust in real terms to the needs of the economy—secularly and cyclically, as indicated above. Thus, to Keyserling, the independence of the central bank is an error—it must not merely increase the money supply at a constant rate without regard to interest rates a la Friedman because such would present the problem of not being able to constantly grow at full employment/output level as interest rates would rise in times of rapid growth or inflation. Thus, the real increase in the money supply must consider growth needs, interest rates, exchange rates, employment levels, price levels, etc.--- an argument against such central bank "independence" as indicated by the Federal Reserve/Treasury "Accord" of 1951 to which Keyserling was a major critic (Brazelton, 2001,2005; Keyserling, 1964b, 1975, 1979, 1980) (See Appendix). Constant growth, fiscal policy, reasonable interest rates depend upon a long term rational increase in the real money supply encompassing the needed factors to enable the economy to maintain full employment/output growth and the consequences thereof in relation to social justice and equity. If the central bank did not accommodate the necessary monetary process, the economy could not approach constant full employment/output growth. If, for example, the central bank only considered its job to be controlling inflation (however defined), employment and potential growth may suffer as would social justice. Thus, to Keyserling, the central bank should not be independent or (to me) subject to legislative rules to control inflation and only inflation; but should also be allowed to maintain growth, and employment in terms of growth of output potential considering the long-term increase in population, labor supply, natural resources, technology/efficiency etc. Controlling inflation is important but it is not all that is important.

If one looks at the above in a more strictly macro-growth model, one can adapt it to the analysis of William J, Fellner (Fellner, 1956). Fellner points out that the C+I aggregate demand function crosses the aggregate supply function to determine the level of income in time period one, FE. But investment (I) has a capital output which increases the capacity of the economy to produce in the now time period two. This additional capacity must be taken off the market in order to

maintain full employment/output by absorbing the new capacity (and avoiding a recession caused by demand not increasing sufficiently), or, in Heller's terminology, the consumption of potential output available in the period two. How is that increased demand created that is necessary to absorb the new level of potential output that has been created by the level of investment? First, part of this need to increase demand to absorb the supply increase is automatic due to the marginal propensity to consume, .b. But, assuming that the marginal propensity to consume is less than 1, then the marginal propensity to save is greater than zero (and, from the above, any other leakages such as transactions motive, money as a superior good, foreign exchange flows, etc.). Thus, investment must increase sufficiently to take excess goods ($S>0$) off the market. But this will need an increase in the money supply to "permit" such to take place; and interest rates have to be held at a level to allow that needed level of investment to take place and be profitable. In other words, monetary policy must be "permissive" if constant growth is to take place (a la Keyserling) to take the new potential output of the market—that is, the change in aggregate supply (output) must be offset by the needed increase in aggregate demand. Thus, the rate of growth of investment must equal to marginal propensity to save in short-run (to prevent a recession); and in the long-run (to maintain constant full employment/output growth and for social equity and justice). Thus, Keynesian macro-theory analysis can not exclude monetary analysis. Keynes did not ignore that fact even though some later interpretations of Keynes did, but that is the error of the interpreters, not of Keynes!

## *V. Conclusion*

The above analysis has indicated the general analysis of the economics of Leon Keyserling mainly at first, in terms of fiscal policy. That analysis is followed by an analysis of his monetary theory/policy. Then, the analysis is presented in terms of Keyserling's (and, later, Heller) "Freedom Budget" or "Full Employment Budget Concept" as to the necessary monetary aspects to complete the "Full Employment" Model. The emphasis is that monetary "permission" must be present to enable the fiscal model to be successful in the long-run. Next, a brief analysis of the growth theory of Fellner indicates same conclusion as does, also, the growth analysis of Evsey Domar where we have multipliers concerning the demand side absorbing capital output parameters in the supply side which also calls for monetary component to keep the system growing (Domar, 1997). Thus, the Keyserling analysis recognized this necessity (Keyserling, herein, 1964b, 1975,

1979, 1980); and is in line with excepted growth theory analysis if not anticipatory of them as Keyserling did not separate the "macro" from the "monetary" because he understood that they could not to be separated in the correct sense of Keynes and of economic analysis and policy.

## *Appendix*

### I. Summary of Keyserling Analysis

1) Growth was the constant belief for Full Employment and Equity

2) Growth, even in an inflation, as inflation was primarily the fault of inadequate supply and administered pricing, not excess demand.

3) Inflation was best cured by supply growth via tax incentives for productivity and selective controls over excess administered pricing—the latter a belief of many current institutionalists.

4) Orthodox anti-inflationary policy increases interest rates and prices to restrict growth, not promote it.

5) Low interest rates for growth were important for investment and productivity growth- a view held by many current Post Keynesians

6) The "Accord" of 1951 between the Federal Reserve and the Treasury was an error as it raised interest rates and restricted Full Employment Growth

7) The Fiscal Budget should be a "Nation's Economic Budget" to balance the budget at Full Employment—a policy later adopted by Walter Heller of the Kennedy/Johnson Era.

8) There must be a macro balance between consumption (wages) and investment to take the supply of goods off the market; and a micro balance between segments of the economy; and incentives, if necessary, to rectify shortages or encourage balanced growth for all.

9) There must be an increase in the real money supply to permit economic growth to continue.

10) The growth of the real money supply must grow as needed to maintain "full employment potential and actual output/demand balance.

## II. List of Conference on Economic Progress Pamphlets, 1954, 83.

The following are pamphlets edited by Leon H. Keyserling and his wife Mary Dublin Keyserling, an economist in her own right, via the Conference on Economic Progress, 1954-83. They are deposited at the Truman Memorial (Presidential) Library, Independence, Missouri, USA and are crucial in terms of research in this area and era of economic policy and analysis.

CONFERENCE ON ECONOMIC PROGRESS REPORTS:

Toward Full Employment and Full Production, 1954

National Prosperity Program for 1955

Full Prosperity for Agriculture, 1955

The Gaps in Our Prosperity, 1956

Consumption—Key to Full Employment, 1957

Wages and the Public Interest, 1958

The "Recession"—Cause and Cure, 1958

Toward a New Farm Program, 1958

Inflation--- Cause and Cure, 1959

The Federal Budget and "The General Welfare", 1959

Tight Money and Rising Interest Rate, 1960

Food and Freedom, 1960

Jobs and Growth, 1961

Poverty and Deprivation in the U.S. 1962

Key Policies for Full Employment, 1962

Taxes and the Public Interest, 1963

The Top-Priority Programs to Reduce Unemployment, 1963

The Toll of Rising Interest Rates, 1964

Agriculture and the Public Interest, 1965

The Role of Wages in a Great Society, 1966

A "Freedom Budget" for all Americans, 1966

Goals for Teachers' Salaries in our Public Schools, 1967

Achieving Nationwide Educational Excellence, 1968

Taxation of Whom and for What, 1969

Growth with Less Inflation or More Inflation Without Growth, 1971

The Scarcity School of Economics, 1973

Full Employment Without Inflation, 1975

Towards Full Employment Within Three Years, 1976

The Humphrey-Hawkins Bill "Full Employment and Balanced Growth Act of 1977, 1978

Goals for Employment and How to Achieve Them Under the "Full Employment and Balanced Growth Act of 1977, 1978

"Liberal" and "Conservative" National Economic Policies And Their Consequences, 1919-1979, 1979

Money, Credit and Interest Rates: Their Gross Mismanagement by the Federal Reserve System, 1980.

How to Cut Unemployment to Four Percent and End Inflation And Deficits by 1987, 1983

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