# AN INCOME REDISTRIBUTION THEORY OF INFLATION AND UNEMPLOYMENT

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*"There are, of course, in principle, policies other than aggregate demand management to which we might turn and which are enticing in view of the unpleasant alternatives offered by demand management. The design of better alternatives is probably the greatest challenge presently confronting those interested in stabilization"*

Modigliani (F. Modigliani, 1977)

## 1. The conventional economic theories versus real world economies

The present paper aims to explore the possibility of a connection and interdependence between inflation and unemployment and the process of inequitable redistribution of incomes. It also questions the role of the governments' "foreign investor friendly" "cost saving", "competition enhancing" austerity policies, and it will arrive at non-conventional conclusions in this regard. We are going to question the trade-off between inflation and unemployment and wage-decrease as a tool for fighting inflation and/or unemployment together and separately — the strategy based on the conventional macroeconomic theories.

This skepticism is based first of all on facts, on the real world of western economies. For more than 20 years, an economic crisis has persisted in the industrialized developed West. This crisis never converges. If decreasing wages would fight inflation or unemployment, they would have converged and disappeared by themselves long ago, by doing just that along their run. But the constant erosion of wages, nominal and real, undoubtely caused by inflation and also by unemployment did not turn these around. The time-honored "inflation fighting" policies of governments based on the mainstream economic theories, which eroded wages even more, never managed to rescue the West from its continuing crisis and have not put it on the path of noninflationary, full employment economic growth. Instead, the

joint forces of the crisis itself and the "crisis fighting" economic policies have increased the profits. This is the inevitable outcome of wage decreases in circumstances of stagnant, but not-decreasing G.N.P., as in the West today. This parallel phenomenon of continuing economic crisis and growing inequality in income-distribution is the main characteristic of the economies of the developed West today — also called Monetarism. We will show that these phenomena, the economic crisis and the process of unequal income redistribution do not just run in parallel, but interact in a way which enhances them both, and are also fuelled by the governments economic policies.

All that has been done is to transform stagflation — the joint presence of inflation and unemployment — into a deep and growing unemployment. On the surface it seems that the "austerity" economic policy at least succeeded in subduing the inflation part of stagflation. But if we take a closer look at the economy of the West, we observe that stagflation and the "inflation fighting" policy have not only left higher unemployment in their wake, but also huge liquidity of the economy, in all the Western economies. High liquidity is not a usual feature of recession and deep unemployment, but of inflation and is also considered as the main cause of inflation. It certainly existed when inflation was still running in the West as a part of the stagflation. But high liquidity did not disappear, even after inflation had gone. It seems that it is was not the austerity policies and not the increase of unemployment, which caused inflation to recede in the West, but the channelling of this liquidity away from the consumer markets to other directions, where money multiplies itself, as on the stock market, but does not cause inflation. (I agree with Keynes, who said that inflation is a phenomenon of the consumer markets.)

Large corporations and big conglomerates and banks are flooded with cash. They have tens of billions of dollars in reserves. The origin of all this money is the profits made on eroding wages, on cutting and dissolving investments. This was true at the time of stagflation and is even more true in times of recession without inflation, when prices do not rise and investments in production are not profitable anymore. These huge sums of idle money must cause inflation if they flow to the consumer markets. They did indeed do this in the recent past, before the practice of Leveraged Buyout (LBO) achieved its enormous dimensions. It is not a coincidence that inflation receded in the West at the same time as when the LBO movement gathered momentum. (The channelling of these enormous profits into the markets where whole companies are traded not only saves the economies from inflation, but also keeps interest rates unnaturally high in times of recession, which keeps unemployment up).

Instead of going to the consumption markets and raising prices there, the money goes to the real estate and stock markets, where it pushes prices

sky-high. But the main use of all this liquid money is buying companies at home and the acquisition of companies abroad with the progress of the "globalization". A recent report shows that at the end of the third quarter of 1997, the three big auto makers in the US had 41.5 billion dollars in cash: GM had $14.6 billion, Ford had $19.3 billion and Chrysler had $7.6 billion. They contemplated spending this money on buying out the big Korean car companies, Daewoo Motors and Kia Motors. Just imagine how inflation would soar, if all this money would find its way to the consumption markets. On the other hand, the economic value of changing ownership is near zero. From this point of view all these sums are wasted money. The only economically efficient use of it would be to spend it on increasing employment, wages and investment — as it was used during the 30 years after WWII in the economic environment of the welfare state. But, of course, this requires an economic system and policy which distributes incomes in a more equitable way.

If we look at the history of the economic crisis of the monetarist West, we observe that during its first stage, the decade of stagflation between 1974-1984, inflation coexisted not only with unemployment, but also with harsh inflation-fighting economic policies. A decade is considered long-run in economics. A priori, there is no more reason to attribute the decrease in inflation at the end of this period to these anti-inflationary measures, than to credit these measures the high inflation and high unemployment with which they coexisted. On the other hand, the decreasing rate of inflation in the U.S. — starting with 1982 — is clearly associated with expansionist economic policies of increased budget deficits, and also followed by a decrease in the interest rate, by an increased growth rate and receding unemployment. These developments look like a deceleration in the course of stagflation rather than a renewed trade-off between inflation and unemployment.

We have more historical examples that show that the appearance of the stagflationary crisis in the West — in the less-developed countries stagflation is an old and persistent phenomenon — is more the result of the monetarist economic policy by which the energy crisis was accommodated than of the energy crisis itself. Germany, a major importer of oil, which faced the energy crisis by raising wages, low interest rates, and a high budged deficit enjoyed the "German economic miracle" of high growth rate, low inflation and low unemployment between 1974-1982. The same is true for Japan, an importer of 90big oil reserves and even turned into an oil exporter during the energy crisis, but managed an "austerity" monetarist economic policy in the face of it, sank into deep stagflation. The most confusing fact in the eyes of conventional economic theory and of theoreticians who attribute stagflation to the energy crisis is that Germany sank into an economic crisis when

the oil-glut had already replaced the oil crisis. The German economic miracle, which persisted throughout the energy crisis, ended abruptly with a sudden turn-around of the German economic policy by Kantzler Kohl, who replaced Kantzler Schmidt when he resigned in the end of 1982. Germany's government budget was cut drastically, interest rates were raised promptly. The inflation and unemployment which followed shortly afterwards cannot be attributed to anything but these policy measures. Germany went monetarist, and after this stagflation was firmly established and took care of keeping itself alive.

The questions which arise and which we try to answer in this paper are: what kept stagflation running in the West long after the energy crisis was over and why it did not turn into a non-inflationary full employment growth with the disappearance of the energy crisis, but instead developed into continuing deep unemployment?

## 2. The income distribution theory of inflation and unemployment versus the conventional economic theories

What went wrong? Where were the conventional mainstream economic theories, the economic analysis and forecasts and the policies based on them mistaken?

All the developments described above — the great success of Germany and Japan and later of the U.S. in fending off the adverse effects of the energy crisis on their economies by economic-stimulus policies; the instant stagflation following the implementation of the "inflation fighting" monetarist economic policy; the existence of the inflation, unemployment and "inflation-fighting" policy triangle in the long term and the recent large liquidity of the Western economies in times of recession contradict the notion of a trade-off between inflation and unemployment. These developments are not marginal events, but they are all central to the recent economic history of the West, they are its turning points. They also certainly do not demonstrate the anti-inflationary and anti-unemployment potential of the "inflation fighting" and "unemployment fighting" monetarist economic policies, which are both focused on wage cutting, deficit cutting and raising interest rates.

It we look at these monetarist economic policy measures, it becomes apparent that each of them separately and all of them together, immediately and first and foremost redistribute incomes in an inequitable way, long before they can have any effect — if they have such an effect at all — on inflation or on unemployment.

We claim that the adverse effects on income distribution of these policy measures is what neutralizes their ability to fight both inflation and also

unemployment, separately or together. We assume — and our theory is built on this assumption — that both inflation and unemployment redistribute income in an unegalitarian way. They do this by themselves along their course, and we shall show that they also accelerate themselves through this income redistribution effect. If this assumption is true — as we will describe below — it must also be true that an economic policy which works in the same direction of income redistribution as inflation and unemployment do, only aggravates them. Our policy conclusion is that only a policy which offsets this distribution effect of inflation and unemployment, a policy which redistributes income in a more equitable way, can fight inflation and unemployment.

The conventional economic theories completely ignore the income redistribution process as an active economic factor which can determine the price level and the level of employment. They completely disregard the distribution effects, both of the economic crisis itself and of the "crisis fighting" austerity policies. Because the analytical tools of the conventional theories are the aggregates, only the aggregate (total) income, demand and consumption are the variables, the active economic factors in the theory — income distribution slips through, and is omitted from the theory. We claim that this omission of the income redistribution process from the mainstream theories, especially from the theory of inflation, leads them into contradictions with themselves and with the real world — as happens to every theory which does not incorporate into its theoretical framework a potent component of the real world. This omission prevents them from getting to the source of stagflation and so they still see inflation and unemployment as contradictory phenomena. While inflation is clearly a process of continuous price rise, in the eyes of the conventional theories it is a sequence of completely independent price jumps caused by exogenous supply shocks and has no demand side at all. We will show an intrinsic, built-in mechanism, through which inflation — as well as stagflation — fuels itself. We will show that inflation does have a demand side, but it is not the aggregate demand.

Because conventional theories deal only with the aggregate income and demand, they have no theoretical guide which could tell us which incomes to cut in order to fight inflation. We attribute to this the failure of Aggregate Demand Management, the only known policy for fighting inflation and unemployment on the national level. Aggregate Demand Management does not take into account the income redistribution effect of inflation and unemployment (IREIU) — which our Income Redistribution Theory of Inflation and Unemployment (IRTIU) does, thereby enabling it to serve as a reliable policy guide on the national level. If government policies — instead of cutting incomes which gain in inflation, and for this reason can buy anything at any price — raise the axes on incomes which shrink in inflation

anyway and, for this reason, cannot be the cause of it, inflation will not recede.

Worse. Because conventional economics disregards the role of profits as a component of the aggregate demand and also of the aggregate cost in the economy, it incorrectly identifies these aggregates with wages. It follows that cutting wages seems like the universal remedy for both inflation and unemployment. Conventional economics is focused around this central thesis. But if this was true, inflation and also unemployment would long ago have converged by themselves through their unquestionable effect of eroding wages — even without government intervention, and certainly with government intervention in the same direction. But this never happens.

We intend to show in our theory that it is not the increase, but the decrease of wages that stands behind inflation and unemployment. The double effect of wage erosion means that decreasing wages on the one hand cause demand deficiencies in the wage goods market, and thus unemployment, and on the other hand, the profits which are made at its expense accelerate inflation. It makes no difference whether inflation, unemployment or government economic policy triggers this inequitable redistribution of income. We will show that above a certain rate inflation has an "unemployment effect", and within a certain range unemployment has an "inflationary effect". (Beyond this range the whole economy might collapse, as has happened in the 30's.)

When conventional economic theories do acknowledge the existence of the redistribution effect, it is considered more as a moral issue, subject to value judgement, than as an economically meaningful force, and it hardly affects pure economic thought. It is often mentioned as a possible outcome of the interaction between different economic forces, but not as an active force in its own right. In those cases when economists do deal with the income distribution as an economic factor, it is considered only in a static way, and in connection with its effect on the aggregate consumption function. Namely, they try to determine whose marginal propensity of consumption (MPC) is larger, that of the poor or that of the rich, and accordingly, how the aggregate consumption is affected by the state of the income distribution in the economy. In either direction only slight effects were found (H. Lubell, 1947; P. Davidson and E. Smolensky, 1964; A.S. Blinder, 1975; T.M. Stoker, 1986). There is also work on the effect of taxation on the GNP. Instead, we deal with income distribution in its dynamics, with the income re-distribution process and its effect on the demand structure of the economy. We find that income redistribution plays a major role in influencing employment and the price-level.

Our theory is closest to the work of S. Weintraub and of P. Davidsor and E. Smolensky, differing from theirs in essential aspects. They develop

an upward sloping demand curve — rarely used in the economic literature — as we do. While the function they construct is the aggregate demand function — contrary to our theory, where only part of the aggregate demand slopes upward — it is composed of the consumption (demand) functions of the different income groups. The incomes of these groups are affected by inflation as well as by unemployment — similarly to our assumptions. Weintraub, Davidson and Smolensky even show that the price rise affects the incomes of the rentiers and of the wage and salary earners adversely, while the incomes of the profit earners rise — like we do. But contrary to our analysis, which uses disaggregated demand, the variable they use is still the aggregate demand. The separate demands of the different income groups come into the analysis only through their effect on the aggregate demand. This aggregate demand is presented as a function of the employment. In the first stage, it rises with the rise of the level of employment in the economy. Only in the second stage of their analysis does the aggregate demand rise with the prices, after employment has made an upward sloping function of the prices. But this means that inflation is considered to be contradictory to unemployment — an assumption and consequence of their theory, with which we do not agree.

The so called "Historical Demand Curve" is also an upward sloping aggregate demand function of the price level because of the growth of income over the years.

### 3. The income redistribution theory of inflation and unemployment: the gainers and the losers in inflation and unemployment

Our theory differs from all others in these respects:

a) it incorporates income redistribution, more precisely the process of income redistribution;
b) the analysis of inflation and of stagflation is done using disaggregated macro-economic variables instead of the usual aggregate income, demand and consumption, and also
c) the coupling of the income distribution with demand shift inflation.

The disaggregation of the aggregate variables is done according to the income re-distribution during inflation. Doing the analysis using these kind of disaggregated variables results in a picture of the dynamics of inflation, where it is necessarily accompanied by recession, and where it also fuels itself intrinsically. We will also show that the inflation part of stagflation does have an excess demand side — a part of the aggregate demand — which is also endogenous to it, and which sustains and accelerates it intrinsically.

In order to show this, the first step is the introduction of the "income effect" into the theory of inflation, meaning that we consider the changes

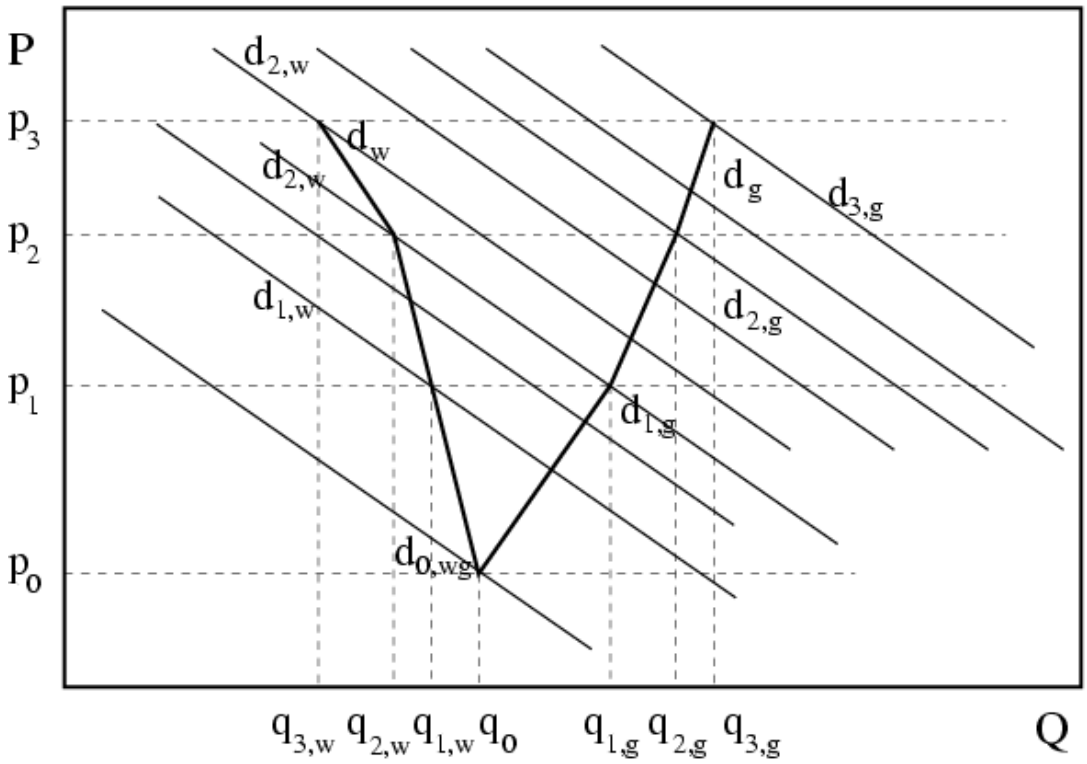


*Figure 1.* Developing the two Demand Function. One for the Gainers, $d_g$, and one for the Losers in Inflation, $d_w$. In Fig. 2 there is: money income $y$, two individuals: $w$ the loser; $g$ the gainer, demand is $d$. There are one price, $p$, and one commodity, $q$.

in income (**Y**) as a function of the change in prices (**P**). This is in addition to the changes in the quantities of goods and services demanded (**Q**) as a function of the change in prices, (**P**), which is called the "price effect". According to this, the prices do not only determine the shift along the demand curve but also the position of the demand curve in the coordinates **P** and **Q**, which depends on the income level. This is usually attributed to exogenous factors and not to the prices. Conventional theories of inflation deal only with the "price effect" of the price rise, ignoring the "income effect" and keep the income constant. In this framework the price rise always decreases real income and the demand is always a downward sloping function of the prices. But in inflation this applies only to those, whose nominal income rises at a slower rate than the rate of inflation, that is the losers in inflation. Those, whose nominal income rises faster than the rate of inflation are the gainers in inflation and their demand curve slopes upward as a function of the prices.

Because there is nothing necessary about everybody having the same rate of income change during inflation, we have demonstrated by the introduction of the income effect into the theory the existence of gainers as well as losers in inflation.

Quite generally, we can say that when the income effect of the price-rise on the demand is larger than the price effect, inflationary gain occurs, while when the price effect is larger than the income effect, there is loss in inflation. In this way inflation redistributes income.

While it is not explicitly stated in the formal model, I want to point out that unemployment certainly has an income effect. The income of the unemployed and of those, whose wages are pushed down undoubtedly decreases during unemployment and their demand curve is therefore pushed downward to the left as a function of $\mathbf{P}$ and $\mathbf{Q}$. At the same time the demand curve of those who gain in this process is pushed upward, to the right. This means that the gainers on unemployment can buy more goods and services because of theses gains, at any price. When we come to the change in the demand structure of the economy and its effect on the price level and on unemployment — see below — it does not make much difference whether the unequal redistribution of income behind the change in the demand-structure is initiated by a price rise or by unemployment.

Because of the nature of inflation, preferring incomes which originate in the ownership of real capital to money incomes, we **divide the public into two income groups**: the wage and salary earners, who are the losers in inflation, and the profit earners, who are the gainers in inflation[1]. According to this, we divide the aggregate income ($\mathbf{Y}$) into two parts: the Partial Aggregate Income of the gainers in inflation ($\mathbf{Y_g}$) and the Partial Aggregate Income of the losers in inflation ($\mathbf{Y_w}$).

$$\mathbf{Y} = \mathbf{Y_g} + \mathbf{Y_w} \tag{1}$$

Demand is considered as a function of the income

$$\mathbf{D} = \mathbf{D}(\mathbf{Y}) \tag{2}$$

and thus the **aggregate demand is also divided into two parts**: the Partial Aggregate Demand of the gainers ($\mathbf{D_g}$) and the Partial Aggregate Demand of the losers ($\mathbf{D_w}$)

$$\mathbf{D} = \mathbf{D_g} + \mathbf{D_w} \tag{3}$$

[1] J. M. Keynes in his article "How to pay for the war" points to the wage and salary earners as the losers in inflation and to the owners of capital as the gainers in inflation. The first pay the "tax of inflation" to the second rather than "the public" to "the government" — the way income distribution is recognized by the conventional theories.

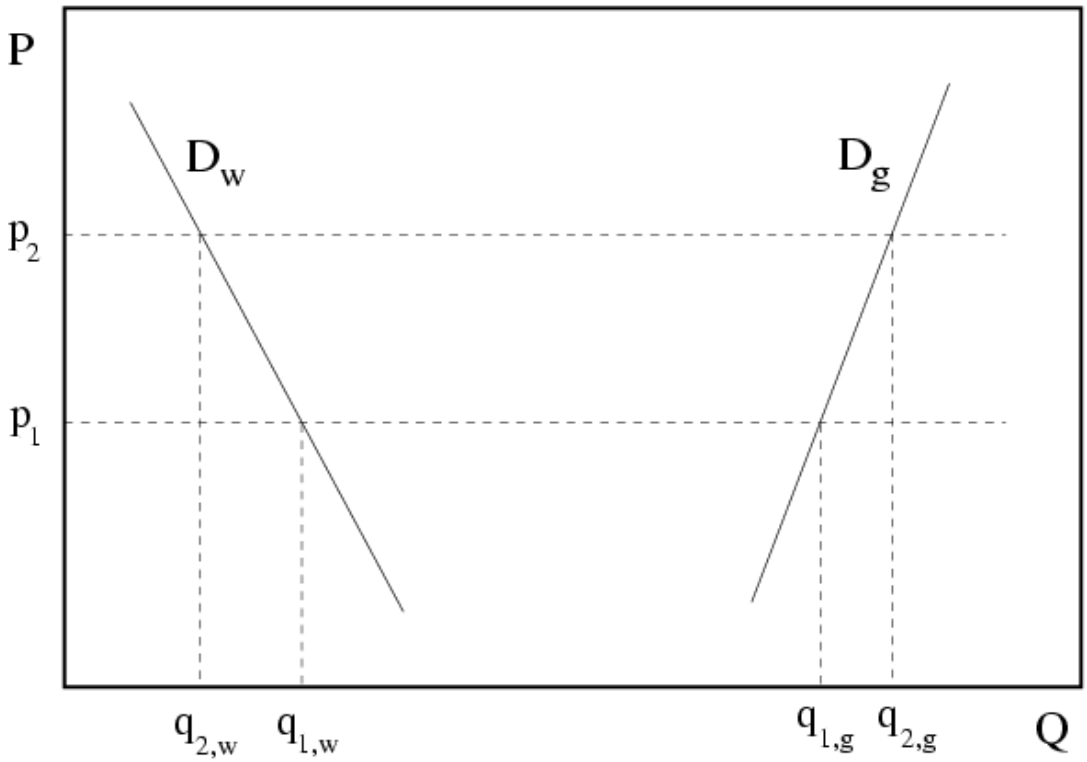


*Figure 2.* The figure shows the **Partial Demand Functions** $\mathbf{D_g}$ and $\mathbf{D_w}$ in the particular case where total aggregate demand **D** is constant. At every price $P$ the loss of **w** then equals the gain of **g**.

$\mathbf{Y_g}$ and $\mathbf{D_g}$ are upward sloping functions of the price ($P$) and $\mathbf{Y_w}$ and $\mathbf{D_w}$ are downward sloping functions (see Fig. 2). Their sums are the aggregate income and aggregate demand, respectively.

Because we assume that the gains are made at the expense of the losses, these total aggregates can stay constant, as is happening today in the economies of the West, where for the last 20 years the growth rate of per capita income has been close to zero — but this is not necessary.

We have to point out that banks are also gainers in inflation notwithstanding the monetary form of their income. The reason for this is that banks, because of their socio-economic power, are able to raise interest rates according to the rate of inflation and most of the time much beyond it. In contrast, the cost of living compensation (CLC) of the wage and salary earners, even when such a non-market institutional arrangement does exist, which is not self-evident, always lags behind inflation. Thus, they join the fixed pension earners and renters — the "classical" losers in inflation. It is also documented that American farmers, while they are owners of real

capital and producers of real goods lost heavily during the inflation at the end of the 70's and the beginning of the 80's in the U.S., because the price of their products only rose in the supermarkets and not at the gate of the farm. In this case all the inflationary gains went to the middlemen, who profit most in inflation.

The losses and gains do not occur randomly but systematically and depend on the nature of inflation and on the socio-economic power of the different social groups in protecting themselves. The gainers as well as the losers are not marginal groups, but both control substantial parts of the national income, together making up the whole. Thus, whatever happens to their incomes affects the economy as a whole.

**The next step** in the construction of our model is to **divide the final goods and services market, the aggregate consumption** (**Q**), into two parts: the market where most of the consumers are the gainers in inflation and/or unemployment which we call the Luxury (**L**) Market ($\mathbf{Q_L}$) and the market where most of the consumers are the losers, the Basic of Wage-good (**B**) Market ($\mathbf{Q_Q}$).

$$\mathbf{Q} = \mathbf{Q_L} + \mathbf{Q_B} \tag{4}$$

According to this, we now divide the aggregate demand (**D**) in a different way: into the Differentiated Aggregate Demand in the **L** market ($\mathbf{D_L}$) and into the Differentiated Aggregate Demand in the **B** market ($\mathbf{D_B}$)

$$\mathbf{D} = \mathbf{D_L} + \mathbf{D_B} \tag{5}$$

Along the course of inequitable income redistribution, the demand of the gainers ($\mathbf{D_g}$) rises, which results in a conventional surplus demand inflation in the luxury market, where they are in majority. The Differentiated Demand in the Luxury market ($\mathbf{D_L}$) increases

$$\frac{d\mathbf{D_L}}{dt} > 0 \tag{6}$$

and, as a result, prices also increase. At the same time the Differentiated Demand in the Basic-goods market ($\mathbf{D_B}$) decreases, because this is mainly the demand of the losers ($\mathbf{D_w}$).

$$\frac{d\mathbf{D_B}}{dt} < 0 \tag{7}$$

This causes unemployment. There is "price adjustment" in response to increasing demand in the **L** market and prices therefore rise there. There is no symmetrical price decrease in the **B** market in response to the decreasing demand there. Because of the downward rigidity of prices — especially in

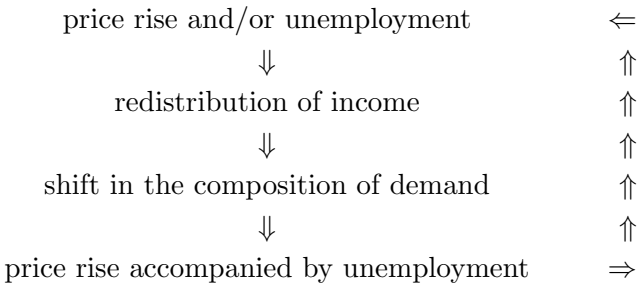


*Figure 3.* Schematic description of the loop of the stagflationary spiral.

the presence of a prosperity market $\mathbf{Q_L}$ — this market reacts to the decrease in demand by "quantity adjustment" cutting production, closing plants and firing workers.

**Demand is transferred from the B market to the L market — a shift in the demand structure of the economy occurrs.** This results in a rise in the price level — demand shift inflation — accompanied by unemployment. Because prices rise in the **L** market and in the **B** market they do not go down and may even increase, an economy-wide price jump occurs, while the unemployment (created in the **B** market) stays intact.

**The jump in the price level and the unemployment created by the inequitable redistribution of income redistributes income again in an inequitable way, which causes a second round of change in the demand structure — and a full fledged stagflationary spiral is under way.** The dynamic loop is described schematically in Fig. 3.

Demand shift inflation is a well-known phenomenon in the real world and also occupies a considerable place in the professional literature (see Schultze 1959). **There is, however, a fundamental difference between the demand-shift inflation dealt with in the literature and the demand shift inflation as it appears in our theory.** The conventional demand shift inflation assumes a transfer of demand from one sector of the economy to another sector, which results in a price-jump. The reason for this shift in demand can be anything — a change in the taste of the public etc. In this case the resulting price jump does not recreate the original phenomenon which caused the demand shift in the first place. Thus, the price jump does not recreate the original phenomenon, which caused the demand shift in the first place. Thus, the price jump remains isolated, with or without unemployment, but does not develop into a self-fuelling dynamic process, an inflationary of stagflationary spiral.

In my theory the shift in the demand-structure of the economy occurs for a specific reason and along special lines. This is the inequitable redistribution of income, which was originally due to a price rise. **Thus, the price jump which resulted from the demand shift renews the redistribution of income, which caused the demand shift in the first place.** Attributing the demand shift to the redistribution of income, which is justified, and also assuming, justly, that a price jump does redistribute incomes, we get a continuing and self-fuelling inflation accompanied by unemployment.

According to our model, once the stagflationary spiral is underway, it does not stop itself. There is no mechanism built into it which would stop its run. Inflation and unemployment feed themselves and enhance each other by the profits made on both and accelerate inflation, and by the losses — at whose expense the profits are made —, which maintain the unemployment. Only government intervention can stop this process, but only through an economic policy which offsets the IREIU, and thus turns around the income redistribution process into a more equitable one.

The governments of the West do actually use these kinds of policies from time to time for example increasing the budget deficits, increasing public investment, social welfare expenses, stopping wage erosion and lowering interest rates, which is the "go" part of the "stop and go" policy — in order to regain control of the economic crisis, to prevent it from running wild. Recently there have been sings of them loosing control. If this happens, the resulting growth in the polarization of the incomes, the increasing impoverishment of the majority and the enrichment of the few, might make the West fall into one of its gravest economic, social and political crises.