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# The Globe Split: a view of the sustainable disequilibrium paradigm

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Contemporary economics (especially its part using quantitative models as the main instrument) is based on some preliminaries that can be called an equiliblial paradigm. As usual, the scholars tacitly assume preconditions that can't really happen, and no proof about it has emerged during their expositions.

The most rampant of those preliminaries are:

- · The macrosystems under studying are equilibrial.
- · The processes occurring in them are linear.
- Their technological base is homogenous and unchanged during a period of observation.
- The external impacts onto them are insufficient and may be neglected (dynamics of their key indicators can be explicated when no outer factors involved).

A piece of new reality for macroeconomic systems is all the assumptions mentioned are incorrect. The economists are usually indifferent about how close their formal model coincides a real life: they simplify a problem in order to be able to solve it. Equilibrial macrosystems have some comfortable features — laws of conservation, and linear processes can be forecasted easily. So, researchers attribute some features to real systems under investigation, then construct a model grounded on those inventions, and finally draw some conclusions based on studies of their own model. The approach described puts aside the main question: how those conclusions relate to a real life.

The most of real macrosystems (which are not thought up by the authors of scientific treatises and textbooks) are disequilibrial. Thereby recessionary and inflationary gaps are often very stable, and a macrosystem remains in a certain state of imbalance for decades, and during that period it doesn't feel some bias (that is often attributed to it), some "aspiration" to the equilibrium state. This means that in certain macrosystems the aggregate demand outstrips either the aggregate supply (this type of imbalance is called an inflationary gap) or, on the contrary, ranks below the aggregate supply (a recessionary gap).

As for the money market, yet (let not for dozens of years, but for several years) a macrosystem is capable to dwell in a state of monetary deficit or surplus: the demand for money is either sustainably exceeds their supply, or falls behind it (excessive or insufficient level of monetization of the economy).

Cyclical fluctuations experienced by a macrosystem are also often represent oscillations around certain disequilibrial state.

So, macroeconomic disequilibrium shouldn't be considered as a deviation from a situation of equilibrium. Disequilibrium of macrosystems is a self-contained and deserving topic of study. The crucial moment is that disequilibrium is not transitory, not occasional, but rather sustainable and renewable during a long period (Goridko et al., 2013).

This fact increases the significance of heuristic models, considering scenarios of disequilibrial dynamics of contemporary macrosystems. The tendency to use equilibrial models among modern economists is so strong that even the AD-AS model is often called a model of balance for aggregate parameters, although it is completely untrue. There are substantial reasons to name this model as a model of their disequilibrium, as we shall see shortly.

That we shall see in the foreseeable future, is an increasing impact of factors associated with the disequilibrial dynamics of macroeconomic systems – primarily technological shifts. Therefore, increasing importance of the theoretical paradigm of disequilibrium and analytical and forecasting results obtained with its help.

The greatest merit of John Maynard Keynes for the study of equilibrium of aggregate parameters is, inter alia, that he has proved the fact of the possibility of macroeconomic equilibrium with any degree of resource involving. The scholars of the classical school before the Keynesian era believed that a balance is possible only in a state of full employment. Sometimes, macroeconomics textbooks written by neoclassical economists still identify an equilibrial value of the macrosystem output with a potential one, that, of course, is absolutely wrong. In fact, an aggregate demand curve is able to cross an aggregate supply curve in any of its part (Fig. 1).

No one should mix up a potential GDP and an equilibrial one. The obvious desert of the Keynesian theory is a proof that macroeconomic equilibrium occurs at any level of resource engaging.

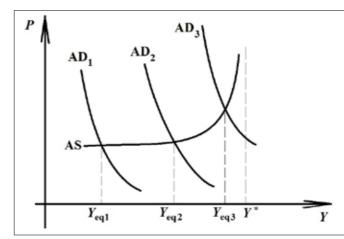


Fig. 1. The states of macroeconomic equilibrium in different parts of AS curve

The root cause of differences between Keynesian and classical doctrines is that Keynes and his disciples studied a different piece of economic reality, a different type of economy. Economic systems investigated by Keynesians, are based on the quasi-monopoly markets, while the main conclusions of the classical school (as well as the neoclassical synthesis, largely inherited the logic of the classical doctrine) are related to perfectly competitive economy (Fig. 2).

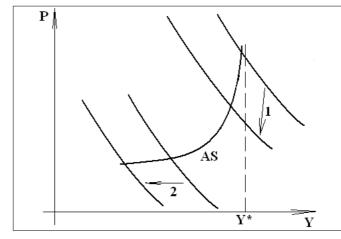


Fig. 2. "Keynesian" (arrow 2) and "classical" (arrow 1) reaction of economy to aggregate demand shocks

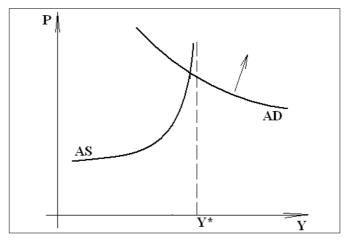


Fig. 3. Situation of total employment in the AD—AS model

Let's note that the situation of "full" employment, which aspires to achieve the governments of developed countries, is not really a "blue dream" for public authorities. The state of full employment, if we could reach it, would mean that the total volume of labor is involved in the production, the resource is exhausted and hence further stimulation of an aggregate demand (arrow in Fig. 3) will not bring success to ensure an output increase, and will just lead to an inflationary overheating of the economy. Thus, we can see that a state of full employment (assuming that it has been reached) knocks out the most important control lever that permits a government to adjust a macrosystem — an aggregate demand.

Many textbooks in economics indicate that a "Keynesian" part of the AS curve describes the short-run relationship between Y and P (SRAS curve - short-run aggregate supply), and a "classic" part - a long-term relationship between those parameters (LRAS curve - long-run aggregate supply). However, this is absolutely untrue. That position expresses the neoclassical view of the differences between the Keynesians and neoclassicals. In fact, anyone can see both short-term and long-term effects in any part of the AS curve.

One of the typical examples of macroeconomic disequilibrium in developed economies is shown in Fig. 4 by AD-AS model. Let the general price level P0 in a macroeconomic system (country or region) was established at a level exceeding the equilibrium, so that the current aggregate demand YAD is above the current aggregate supply YAS. Keynesians (and - after them - economics in general) called the situation of that kind a recessionary gap, because the fact that an aggregate supply exceeds an aggregate demand often means that the economy is on the verge of recession, originally described in the economic literature as a crisis of overproduction.

However, until the crisis has not come yet, there is only the fact of overproduction, and a government has a number of ways to prevent baneful effects and to implement macroeconomic stabilization.

Sustainable disequilibrium of macroeconomic systems in a state of recessionary gap assumes a number of possible scenarios of rebalancing, which are indicated by arrows in Fig. 4 (Nizhegorodtsev, 2011).

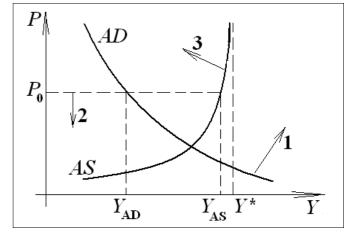


Fig. 4. Recessionary gap: scenarios of disequilibrial dynamics

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Another example of macroeconomic imbalances crucially different from the first one is an inflationary gap (Fig. 5). Let the general price level is fixed at P0, where the current level of an aggregate demand YAD is ahead of the current level of an aggregate supply YAS. This situation also permits to describe different scenarios depending on the actions of a government and on the specifics of investigated macrosystem.

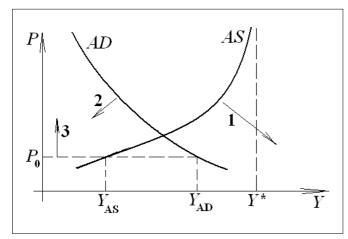


Fig. 5. Inflationary gap: scenarios of disequilibrial dynamics

We note the state of an inflationary gap doesn't allow to "heat" an aggregate demand, shifting the AD curve to the right and upward. It is dangerous for the macroeconomic balance, because in this case the general price level starts to rise spontaneously, trying to "reach out" to the point of equilibrium, which entails growing inflation (precisely saying – demand inflation). The safe way to stimulate an aggregate demand in a situation of inflationary gap can only be associated with the methods that, leaving an AD curve in its place, shift to the right along it the curve of AS, i.e. change the relationship between the price level and aggregate supply.

Considered situation, of course, do not exhaust all the possibilities of disequilibrial dynamics. In a real life, the curves of aggregate demand, aggregate supply and the line of the general price level move not alternately but simultaneously, that significantly complicates the analysis of macroeconomic dynamics. The key to this analysis may be obtained by studying the factors of movement of corresponding curves, as well as the challenges that a government or a regional administration face to.

Let's note that the state of an inflationary gap usually characterizes developing countries and countries with so called planned economy where a government restrains a price level to meet the needs of people. An aggregate demand outstrips an aggregate supply, and, generally speaking, that's an economy of deficit — a subject has been described many times by researchers of a planned economy (Bukharin, 1920; Kornai, 1988). An aggregate demand can't be an important driver for economic growth of such macrosystem because its heating is detrimental for stability of a macrosystem, since it even more deepens a gap between jumping AD and AS dragging behind it.

A government suppressing a price level in inflationary gapped economies evokes some externalities concerning resource outflow. Underevaluated resources move to recessionary gapped economies where they must be highly evaluated. So, that's a reason for internal protection of resource markets in a planned economy and for their certain isolation from the rest of a global economy.

Inflationary gapped economies cannot be open also for monetary circulation. If we assume that free circulation of currency permits to accumulate it in the hands of non-residents, they will go with that currency to the domestic market of the country and put her systematic plunder due to great difference in a general price level.

Goods export from an inflationary gapped macrosystem should also be centralized, otherwise the difference in a general price level will lead to the immediate devastation of the country through the efforts of residents seeking to sell all they can at a low price in order to make a quick profit, albeit small. Actually, exactly this happened with the post-socialist economies where their foreign trade has been liberalized.

Thus, a macrosystem in a state of inflationary gap is a closed economy with a government monopoly for foreign trade and monetary transactions. Autarchic, isolated character of an economy of this type is logically derives from the specifics of its internal devices.

Most countries with developed market economies, by contrast, often have the state of a recessionary gap, in which an aggregate supply outstrips an aggregate demand. This is the standard economics of excess (by speculating on this fact, adherents of this economic system call it an affluent society or a society of consumption), in which almost the only scarce resource is money, and the amount of effective demand is the main limitation of final consumption. Thus, the abundance in the economic systems of this type takes place only for those agents who has no problems with solvency. It's an obvious tautology, since a market economy is an economy for the rich, where the principle of class inequality is elevated into a cornerstone.

Macroeconomic systems of both types face overt problems associated with imbalances of aggregate parameters, with a sustainable gap between an aggregate demand and an aggregate supply. No one of considered types of disequilibrial macrosystems is free from problems associated with market failures and boundaries for government adjustment.

Macrosystems of two considered types are characterized by different institutional entities. Institutions operating in one of them cannot be imported into another one without proper adaptation, because the importing system requires other functions for the same institutions. That's the main reason for the institutions of a market economy imported into transitional economies have never been properly installed. The most reliable way of institutional development of macrosystems is the growing institutions on its own basis, when the formation of the institute starts with determination of some functions to execute.

The monopoly for creation of global financial institutions and institutions of international law assigned by developed countries

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evokes protests of underdeveloped countries, whose economies experiencing inflationary gap. They will inevitably make efforts aimed at the destruction of that monopoly through creation of an alternative global institutional system, and some developed and rich countries interpret it as an attempt to overturn the global order.

Thus, the modern global economy is subdivided (not by geographical but economic principles) into two unequal parts, one of which includes a macrosystems in a recessionary gap, the other consists of economies in an inflationary gap. Their interests are antagonistic, and conflicts between them are unavoidable. Despite the fact that the recessionary gap countries increasingly resorting to forceful remedies, the tools of adjustment should be sought only through mutual coordination of long-run interests.

#### References

- Goridko N.P., Nizhegorodtsev R.M., Tsukerman V.A. Innovation vectors of economic growth for Northern regions: abilities, evaluations, outlooks. Apatity: Kolsky Scientific Centre Publishing, 2013. – 199 p. [Rus.]
- Nizhegorodtsev R.M. Disequilibrial dynamics of macrosystems and instruments to overcoming the global crisis. Novocherkassk: NOK, 2011. 100 p. [Rus.]
- Bukharin N.I. The economy in transition. Moscow, 1920; 2nd edition Moscow, 1989. [Rus.]
- Kornai J. The socialist system. The political economy of communism. 1988.