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► **To cite this version:**

Albert Marouani. Structural and behavioural asymmetries as the norm of market Economies. FIRST EUROPEAN ASIMMETRY SYMPOSIUM, Mar 2018, Nice, France. halshs-01965258

**HAL Id: halshs-01965258**

**<https://shs.hal.science/halshs-01965258>**

Submitted on 25 Dec 2018

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# FIRST EUROPEAN ASIMMETRY SYMPOSIUM

(15-16 March 2018)

## *Structural and behavioural asymmetries as the norm of market Economies*

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### **Abstract :**

Standard neo-classical economic theory is based on the idea of balance and symmetry between opposing forces (supply and demand). Most situations in the field of macroeconomics, in particular, are of a structurally asymmetrical nature. The same is true about the behavior of all agents because asymmetry of information is a characteristic of any contractual relationship in any market. Classical economists, as well as other heterodox economists, also consider that asymmetry, inequality and the conflicts of power and domination are at the very heart of market relations and explain the historical dynamics of the evolution of market economies. In these circumstances, it should be considered that the asymmetrical relationship must be regarded as the norm of the market economy.

**Keywords :** asymmetry, neoclassical economics, market, equilibrium, econometrics, macroeconomics, classical economics, evolutionary economics, structure.

### **Résumé.**

La théorie économique standard néo-classique repose sur l'idée d'équilibre et de symétrie, entre forces opposées, notamment l'offre et la demande. Or la plupart des situations dans le domaine de la macroéconomie notamment sont de nature structurellement asymétrique. Il en est de même au niveau de la microéconomie des comportements des offreurs et des demandeurs du fait de l'asymétrie d'information qui est une caractéristique propre à toute relation contractuelle sur n'importe quel marché. Les économistes classiques, comme sur un autre registre les économistes hétérodoxes, considèrent également que l'asymétrie, les inégalités et les conflits de pouvoir et de domination sont au cœur même des relations marchandes et de la dynamique historique d'évolution à long terme des économies de

marché. Il conviendrait dans ces conditions de considérer que la relation asymétrique doit constituer la norme de l'économie de marché.

**Mots clés :** asymétrie, économie néo-classique, économie de marché, équilibre, macroéconomie, économétrie, économie classique, économie évolutionniste, structure.

## **Introduction.**

The notion of asymmetry in economics is often confused with the notions of inequality, dissymmetry, imbalance, inequity and injustice. The dominant standard economic theory known as "neoclassical" is based on the assumption that the pure and perfect competition market is characterized by a perfect symmetry between supply and demand. Asymmetrical or rather dissymmetrical situations arise when the principles of free competition are interfered with, in particular because of the behavior of agents who exercise on the other agents an asymmetrical power such as in particular the State, the large enterprises or the unions. This asymmetrical power is always harmful to the community as a whole. Any asymmetry is a transitory evil that must be corrected by suppressing its causes, ie on the one hand the intervention of the State which must be reduced at best to its sole sovereign functions, and on the other hand, all monopolistic and oligopolistic situations must be banned, if necessary, through the introduction of anti-trust laws and measures that break union power.

We want to go up here that we need to radically change the paradigm and consider, on the contrary, that asymmetry is in general the most common norm of market economies. Admittedly, there are bad and good asymmetries. Social conventions and democratic institutions are necessary to correct and eliminate the bad asymmetries that are the source of environmental degradation, destructive crises and impoverishment. On the contrary virtuous asymmetries that generate emulation, creativity and improved people's well-being in terms of sustainable and inclusive development must be encouraged.

As economists most often deal with measurable concepts by quantities of monetary units (prices) both at the microeconomic level of an individual or a firm and at the macroeconomic level of an industry, a country, a region and that they have more and more accurate databases, they can resort to increasingly complex facilitated by econometric software and the power of computers. This growing ease of accessing and quantifying statistical data makes it even more necessary to have conceptual and theoretical thinking which alone is able to first determine what we are looking for and then to make sense.

The notion of asymmetry does not escape this tension between its empirical and statistical dimension and its conceptual meaning within different theoretical paradigms. We will first discuss what the notion of asymmetry covers in terms of empirical economic studies and then point out some of the major theoretical debates it raises in the field of economics.

## **1. Structural asymmetry at the center of statistical and econometric empirical research.**

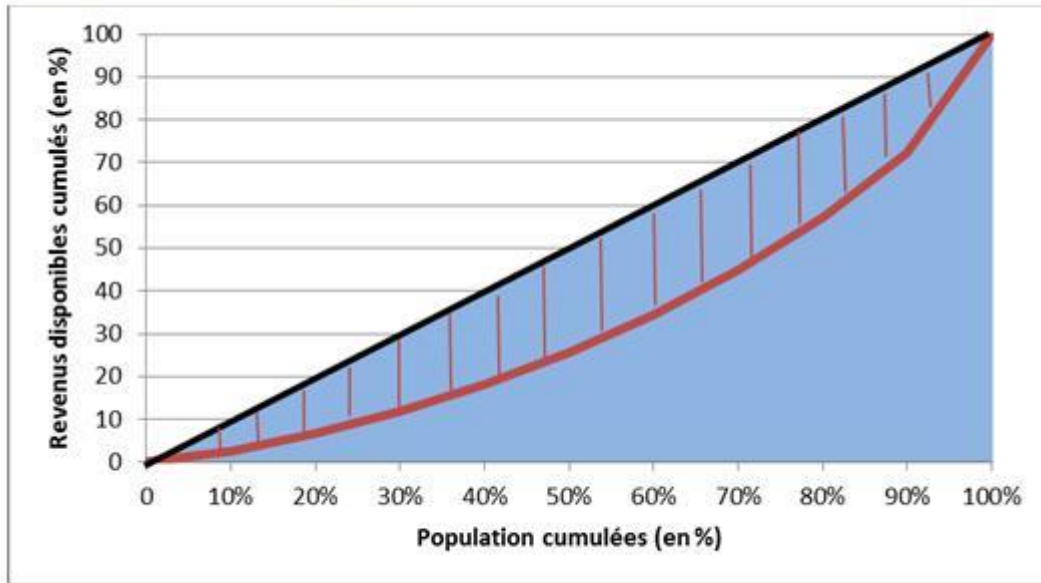
### **a) the structural asymmetries of distribution.**

The notion of asymmetry in the field of empirical studies is often confused with notions of inequality and imbalance. For example: imbalance between supply and demand (goods and services, labor, capital, etc.) in one or more markets or at the overall level of the economy of a country or group of countries, imbalance of foreign trade, balance of capital, balance of payments, migratory flows, inequalities of income, wealth, natural resources (arable land, fossil fuels, water, etc.), public goods and services, gender, age, ethnicity, etc., etc. We would not finish enumerating all the imbalances and inequalities which in the actual field of the economy can also be interpreted as so many asymmetrical relations between agents (household, company, banks, insurance, etc.) or groups of agents or institutions, or branches, or sectors, or countries, or groups of countries, etc.

Let us take the example of income distribution (wages, profits, rents, etc.). This theoretically very complex question is often reduced to its empirical measure.

The Gini indicator measures the degree of inequality of distribution (income, wealth, wages, etc.) among inhabitants of a given country. International organizations rank countries according to this criterion, which becomes synonymous with "Social justice", "distribution fairness of wealth ", or even " social and political democracy ".

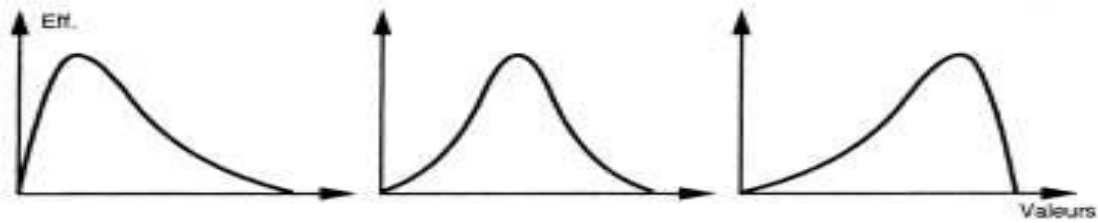
Graphique : Courbe de Lorenz appliquée à la distribution des revenus disponibles en France en 2011



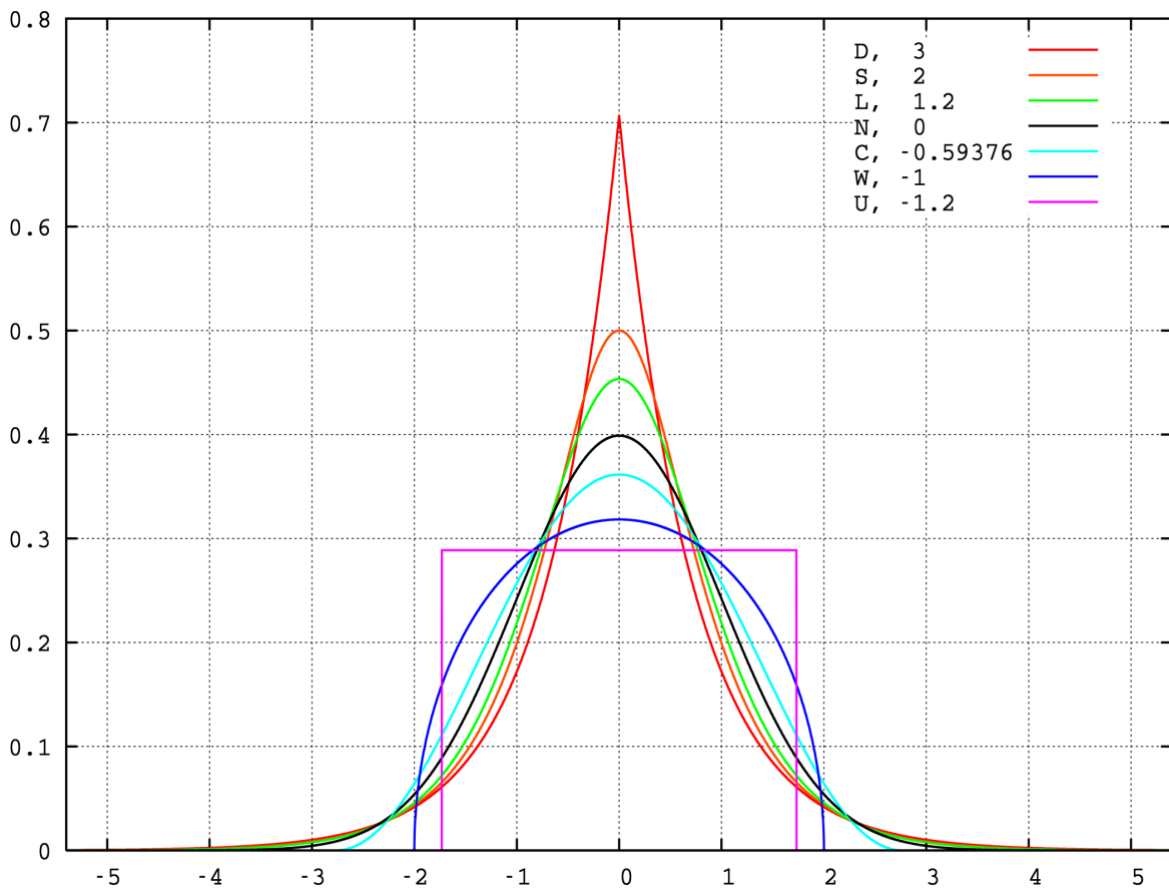
Source : INSEE, BSi-Economics

The Gini coefficient is measured by the ratio of the shaded area to the blue area. It varies from 0 (perfect equality on the first bisector) to 1 (total inequality). In France, this coefficient applied to household disposable income is 0.352 in 2011. This indicator reflects unequal distribution and not unequal income level or distribution. Nor does it reflect an asymmetry of income distribution. "For example, if the 50% of the most modest people have no income and the wealthiest 50% equally distribute the remaining income, then the Gini coefficient is equal to 0.5. It also reaches 0.5 when the 75% of the lowest income is 25% and the top 25% have 75% of the income. This indicator says nothing more about the nature of these incomes, the way they are formed, and why and how they change over time. We will address these theoretical issues in the second part of this paper. To get a better idea of the asymmetry of the distribution of incomes, one should consider incomes as a real random variable and look at their distribution by group and by type of agent or group of countries, or by type of income at a given date.

Two well-known indicators measure precisely the form of a statistical distribution: "kurtosis" and "skewness". There are three types of distribution according to whether they are asymmetrical on the left (positive skewness), symmetrical (kurtosis) or asymmetric on the right (negative skewness).



Kurtosis (from the ancient Greek feminine name κύρτωσις, "curvature"), is a flattening coefficient. Given a real random variable  $X$ , expectation  $\mu$  and standard deviation  $\sigma$ , unstandardized kurtosis is the fourth order moment of the reduced centered variable. A high flattening coefficient indicates that the distribution is rather pointed in its mean, and has thick distribution tails. We can distinguish several characteristic types of symmetrical distributions of a real random variable (see the graph below )



Plot of several symmetric unimodal probability densities with unit variance. From highest to lowest peak: █ red, kurtosis 3, [Laplace \(D\)ouble exponential distribution](#); █ orange, kurtosis 2, [hyperbolic \(S\)ecant distribution](#); █ green, kurtosis 1.2, [\(L\)ogistic distribution](#); █ black, kurtosis 0, [\(N\)ormal distribution](#); █ cyan, kurtosis  $-0.593762\dots$ , [raised \(C\)osine distribution](#); █ blue, kurtosis  $-1$ , [\(W\)igner semicircle distribution](#); █ magenta, kurtosis  $-1.2$ , [\(U\)niform distribution](#).

The asymmetry coefficient (skewness) measures the asymmetry of the distribution of a real random variable. A positive coefficient indicates a distribution shifted to the left of the median, and therefore a distribution tail spread to the right. A negative coefficient indicates a distribution shifted to the right of the median, and thus a distribution tail spread to the left (Mode > Median > Mean). In general, we distinguish in economy three types of asymmetric coefficients, the main one being the Fisher's asymmetry coefficient: ratio of the 3-point centered moment ( $m_3$ ) to the standard deviation cube ( $s^3$ ):

$$g_1 = \frac{m_3}{s^3} .$$

There are two other simpler and more empirical asymmetry coefficients.

1. The empirical coefficient of Pearson:  $S_k$  difference between the mean  $\bar{x}$  and the mode  $x_M$  of the observed distribution. This difference is divided by the standard deviation  $s$  so that  $S_k$  is a number without unit: 1.

$$S_k = \frac{\bar{x} - x_M}{s} .$$

2. The empirical coefficient of Yule and Kendall is defined from the three quartiles of the observed distribution:

$$Y_k = \frac{(x_{3/4} - x_{1/2}) - (x_{1/2} - x_{1/4})}{x_{3/4} - x_{1/4}} = \frac{x_{1/4} + x_{3/4} - 2x_{1/2}}{x_{3/4} - x_{1/4}}$$

In general the coefficient of flattening (kurtosis) is calculated at the same time as that of asymmetry. The Jarque-Bera test incorporates these two coefficients. To find out whether skewness is compatible with the normality assumption, we refer to tables that give us for a given series and a number of observations the probability and the confidence interval for it to be considered normal. These financial economy ratios are often used in the distribution of losses for securities portfolios where the asymmetry reflects, for example, a limited potential gain with rare but sometimes very large losses. These asymmetry coefficients are also used to analyze the distribution of wages within a firm and reveal, for example, inequalities of gender or age or ethnic discrimination.

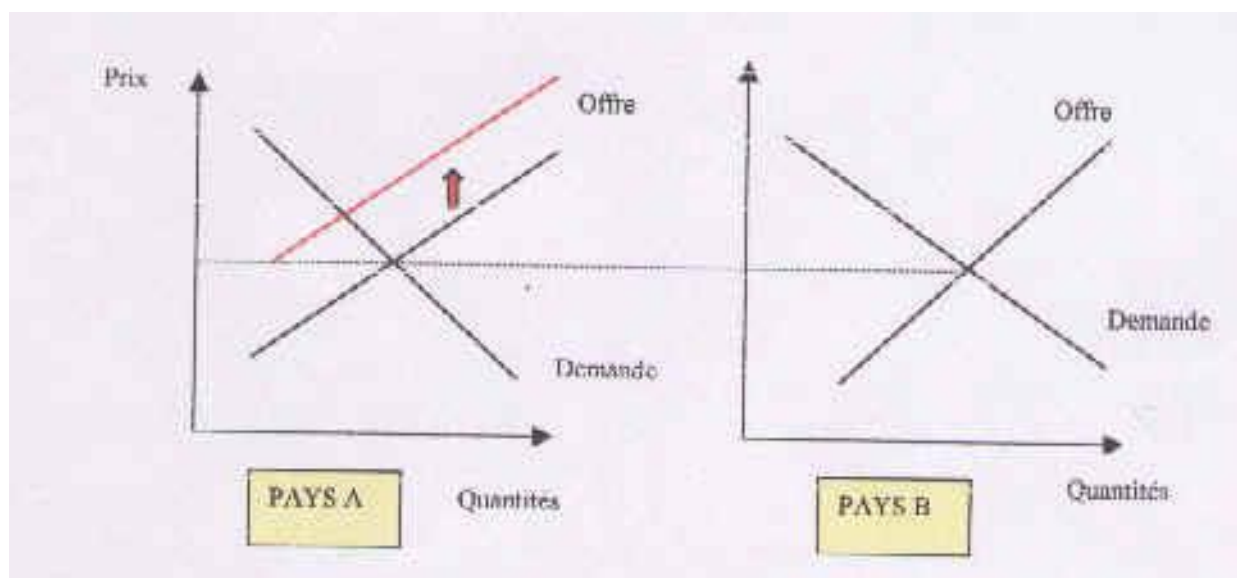
### **b) the structural asymmetries due to shocks: the models « VAR structure »**

There are many examples of major macroeconomic imbalances that can be interpreted as structural asymmetries :

- Imbalance / asymmetry on « stocks » (real, monetary and financial) are macroeconomic magnitudes such as growth, employment, investment, technical capital, energy (natural, non-renewable and renewable fossils), technology, human capital, natural and environmental capital, productive structures, the distribution of wealth and income, etc.

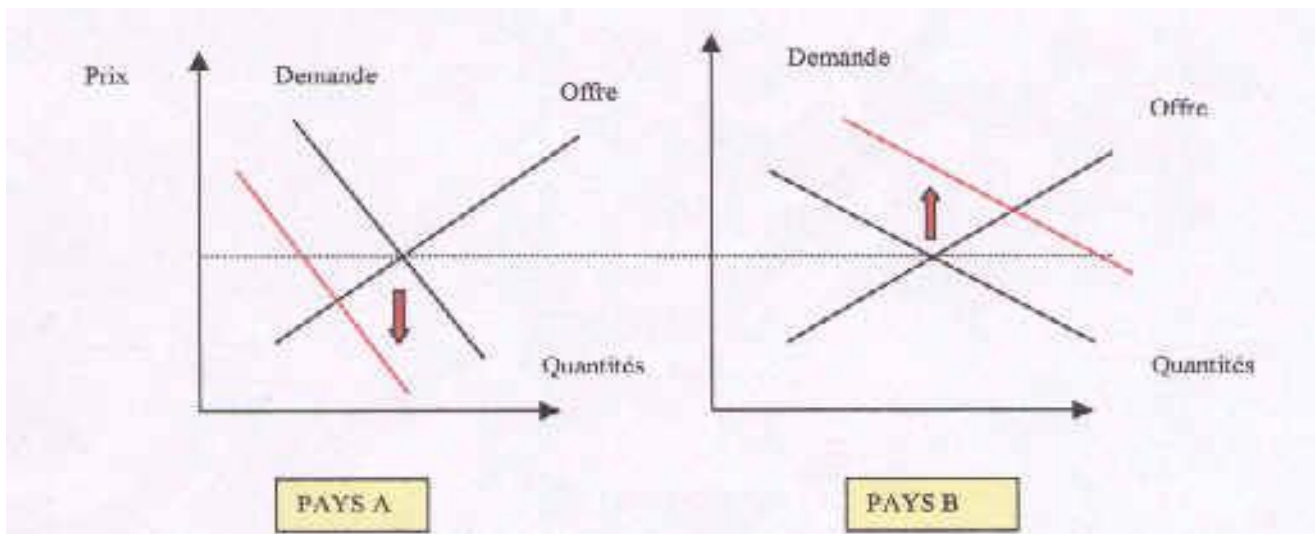
- Imbalance / asymmetry on « flows » (real, monetary and financial): trade in goods and services, natural disasters, global warming, pollution, biodiversity, population movements and migration flows, international capital movements, etc.

Econometric models in macroeconomics very often refer to the (symmetrical) notions of supply shock and demand shock to designate events that translate, by a significant and unforeseen variation in the conditions of production or demand of one, several or all • The notion of supply shock. It is two countries A and B. One of the countries is affected by an increase in its production costs (oil shock, sudden increase in wages, deterioration of its competitiveness); the other country is affected by an inverse shock (or no shock at all). For a given exchange rate, prices were identical in both countries A and B. An asymmetrical shock of negative supply affects country A (its supply function moves upwards).



- The notion of demand shock Country A produces goods that are suddenly less in demand (shifting the demand curve downwards); while country B produces goods that are more in demand (moving the demand curve upwards).





These shocks are generally asymmetric because they impact with intensities and non-identical or non-uniform effects, firstly the producers, and then, in turn, all the different other agents (companies, households, branches, sectors, country, group of countries, etc.). These shocks are generally exogenous and can be economic, social, political or natural. The econometric identification of supply and demand shocks comes from the VAR literature and in particular from the founding article by Blanchard and Quah (1989). There are countless works, articles and theses that are inspired by it.

It's about understanding how a shock spreads, how and to what degree it impacts the agents and the different sectors of the economy of one or several countries and how it ends up being absorbed by market mechanisms or after the intervention of a public authority (State, Central Bank, International Institution, etc.). The model begins by asking theoretical hypotheses that This involves:

- choosing the statistical series that will be used for the demonstration,
- ensuring that the number of observations is sufficient,
- that the stationarity conditions of each series are verified,
- that there is no cointegration between the series (application of the Johansen test, for example).
- that the assumptions of the covariance variance matrix of the shocks, as well as those concerning the The effects of shocks on the different aggregates represent a sufficient number of equations to determine the coefficients  $a_{ii}$  of the impulse functions.
- If there are several perturbations, it must be verified that they are independent and not self-correlated (their matrix variances-covariances is diagonal).
- Determine for each type of shock, the common component and the specific component for each type of agent (company, branch, country, etc.), particularly using the Kalman filter

- Etc.

According to the nature of the shock (s) studied, the period and the perimeter considered, one draws the results of the econometric model of the recommendations in terms of economic policy. For example shock of the return or the exit of a country of the zone euro, shock of change of the monetary policy accommodating central banks, German reunification shock, shock of sharp rise in the price of energy or raw materials, or entry into a free trade agreement, shock of sudden increase in public spending (announcement by D. Trump), fiscal shock of sudden rise or fall, productivity shock, major innovation shock, etc. In terms of the explanatory factors, issues related to the operation of markets, their rigidity, the volatility of prices or rates, the characteristics of the structures of production, distribution, consumption, demographic, etc. For example, the recent announcement of the introduction of tariff barriers by the US could, if translated into action, lead to asymmetric shocks within and between countries (between regions and between branches) in the euro zone, according to the degree of specialization of their respective productive apparatus and their also the impact of these shocks, the flexibility of their labor markets, etc. The proposed economic policy measures are also generally to mitigate the effects of asymmetry and to restore the conditions for convergence. For example, many studies have examined the question of whether belonging to a common currency area, the Euro zone, which is clearly not an OMA (Optimal Monetary Area) in the sense of Mundell, has mitigated the asymmetry of productive structures between the member countries of the zoned. This question can also be formulated differently: did belonging to the Eurozone reduce the asymmetry (or strengthen the symmetries) of the external shocks suffered by the member countries? In the absence of adjustment by the exchange rate that has become common to all the countries in the zone, the question is to know on which other variables the adjustment will be based (unemployment, the level of wages, public expenditure, inflation ...). Everything will depend on the degree of flexibility (or rigidity) of these other adjustment variables which itself depends on social, institutional and political factors. Another recent example could be the analysis of a productivity shock on firms. in the wake of ongoing reforms of the labor market and social protection. The comparative competitiveness benefits that may result from these reforms may result in inter-branch and / or intra-industry specializations, at more or less fine levels in the value chain, which could lead to cumulative effects, sources of growing asymmetries that would accentuate the divergent effects from one country to another or from one region to another. Note that the lack of convergence is often the argument invoked by the proponents of protectionist measures. All these questions lend themselves to numerous econometric studies, the results

of which must be assessed according to the chosen period and the variables taken into account (indices activity, specialization index, shock index, regions, countries, sectors, industries, etc.) For example a shock (variation) of activity can be measured by the standard deviation of the change in log difference. The actual output of each pair of countries, or regions. The degree of asymmetry of the shocks can be approximated by an index of similarity (or dissimilarity) of the composition of the export structures, but one could also have taken a growth index, an unemployment rate, a level of employment, a level of real GDP, etc. measured in logarithm (except for the unemployment rate). The degree of reciprocal openness can be measured by the average of bilateral exports relative to GDP. The bilateral intensity of trade could be approximated by the logarithm of the ratio of bilateral exports / imports to the sum of exports / imports of the two countries concerned to all other countries. In some cases the polarization effects associated with Krugman agglomeration effects can attenuate the asymmetries between countries but accentuate those between regions. When one analyzes the effects of convergence (real or nominal), one must also ask the question of the accentuation of the divergences by country or by region. For example, the "EU Structural Funds" policy aims to mitigate regional or sectoral divergences or asymmetries. The diversification of economies is also an important variable to take into account when analyzing the effects of structural supply shocks. Current econometric models make it possible to measure and analyze all the effects of structural shocks. It is also necessary to be very vigilant not only on the data chosen, the period envisaged, the degree of disaggregation of the variables, etc., but also and above all on the explanation of the theoretical framework which makes it possible to formulate hypotheses, to construct the model, to interpret its results and to make proposals for economic policy. Unfortunately, often in theses and econometrics, the sophistication of statistical and econometric tools and techniques prevails over methodological and conceptual thinking. Beyond its empirical representation, the notion of asymmetry is fundamentally a question of conceptual order that challenges all economic theories.

## **2°) Behavioral asymmetries, an important source of theoretical controversies.**

The nature of agents' behaviors and their relations is often at the heart of the theoretical controversies between the major paradigms of economic thought. . The issue of symmetry / asymmetry is an important dimension of these debates. Having emphasized that symmetry (and certainty) constitutes the market standard in neo-classical orthodox thought, we will first show how asymmetric information disturbs the behavior of agents to a certain extent.

prevents markets to function properly and fulfill their self-regulating function. We will then ask the often-evaded question of the power and consubstantial power of market economies and conclude on the need for a radical paradigm shift in economic theory that would make the concept of asymmetry the central norm rather than the marginal exception.

**a) Symmetry is the standard of the ideological representation of the market economy in the neo-classical thought.**

The standard model, to which the neoclassical theory and the liberal economists refer is based on the perfect symmetry of supply and demand based on the following assumptions:

- Economic agents are differentiated only by their subjective preferences and their always symmetrical alternative situations of offerers (sellers) or of claimants (buyers).
- They are all perfectly rational (they know how to optimize and thus make economic calculations of maximization under constraints).
- They have all equally of all market information (price, quality and quantity).
- They are virtuous (no one is looking to (or is able to) withhold information, deceive trading partners or try to impose choices on them by force or rudeness).

The Walraso-Paretian general equilibrium comes on the basis of these heroic assumptions to prove the possibility of the market economy : there is a system of unique balance prices that equalize the supply and demand of the agents and thus realize an optimum social (all agents completely realize their production and consumption plans and are fully satisfied.). The formal demonstration of existence of a unique price system that makes compatible preferences agents is based on a process of symistation by tattonnement. This process of trial and error is initiated and led by a fictional character (it works without costs, without needs and without any interest), a kind of auctioneer or market secretary (or central computer) who records for each price shouted in the light of all the candidates for the exchange, the quantities of goods and services they are willing to produce or buy on this price basis. The market secretary stops when he finds that there is no longer any dissymmetry between the offerers and the applicants, that is to say that the last shouted prices are "balance prices", that is to say that the offer is equal to the demand and that no more agent is dissatisfied. As soon as he finds that there is no more excess or symmetrically no deficit, the authorizing commissioner gives the order to exchange. In equilibrium all markets are necessarily cleared and no one is in a situation of waiting or dissatisfaction or even arbitrage or transfer to another market, because all markets balance

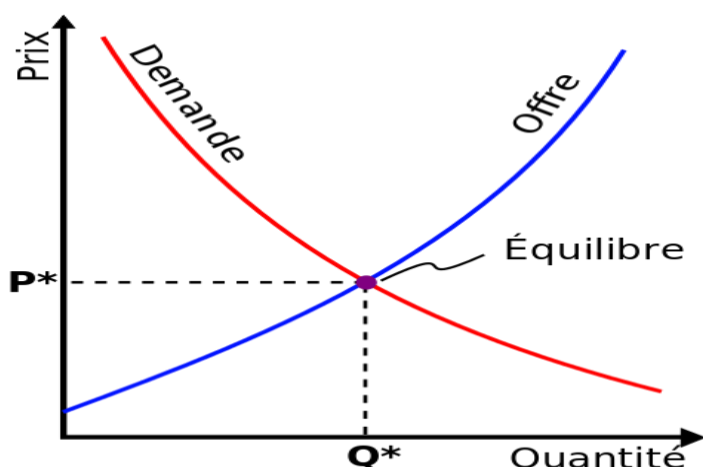
at the same time. The wage which is the equilibrium price on the labor market and the profit on that of the capital are fixed at the level of their marginal productivity within the function of production. They maintain between them a perfectly symmetrical and non-antagonistic relation: profit is the remuneration of the factor of production that is the capital in the same way that the wage is the remuneration of the factor of production that is the work or the rent like remuneration the production factor land or natural resources.

$$Y = f(K, L, T)$$

$$\text{With } r = \partial Y / \partial K, w = \partial Y / \partial L, t = \partial Y / \partial T$$

$$\text{And } Y.p = r.K + w.L + t.T$$

The equilibrium on factors markets is identical to that which is determined in the production function, it appears that the market is also perfectly fair: each factor receives exactly its due according to its contribution to the value of the final product  $Y$ , since each receives a remuneration equal to its marginal productivity (increase of product  $Y$  due to the increase of the last unit of the factor of production). Each factor of production is always guaranteed to perceive exactly its "fair" remuneration. The asymmetry between social classes here does not exist. It is this theoretical construction that is still at the heart of the belief in the self-regulating virtues of the market. The idea of the market 'recall strengths', coupled with such phrases as 'the market is always right', nobody can 'beat the market', it is 'the law of the market', and so on. All this implies that the symmetry between the offer and the demand is a norm, a pole, even a center of gravity which exerts a power of attraction all the more strong as one moves away from it.



The "reality" invented by this theoretical construction is different from this ideal theoretical model in the sense that it departs from it. It is assumed that these "gaps" can be

measured or analyzed by calculating "fictive prices" of equilibrium. This is how in the neoclassical theory do the obligatory reference of liberalism, neo-liberalism and ultra-liberalism) theories of the "natural wage rate" and the "natural interest rate" have been developed to explain unemployment and the conduct of monetary policies by Central Banks. In other words, the real prices observed in the markets revolve around the equilibrium prices, which are an abstract fiction, a purely theoretical construction.

It is this "mystery" that founds the "religious" and / or "magical" belief, that there are "laws of the economy" against which it is futile to oppose and fight. This representation of an ideal model of symmetry is driven by the idea that the equilibrium is always virtuous whereas conversely the imbalance is perverse and harmful. In economics this equilibrium is expressed in terms of symmetrical forces (supply and demand, flow and credit, losses and profits (or benefits), costs and benefits, restoring balance must be done at all costs as we see today in the austerity policies imposed on indebted countries (Greece, Italy, Portugal, Spain, France, etc.) to fully repay their debts. Neo-classical economic theory has nevertheless integrated asymmetry as an "imperfection" of the market, even as its "failure" without questioning its primary role in the coordination of agents through the exclusive prices as signals. A liberal economist like Hayek, who does not believe in the neo-classical vision of rationality and omniscience of economic agents, nevertheless considers that uncertainty, incompleteness of information, asymmetric circulation and complexity of the world can still be managed by the prices of goods and services that, in spite of their imperfection, reflect in a neutral and objective manner the state of their abundance or scarcity and thereby inform current and potential entrepreneurs about profit opportunities. Prices translate and express the convergence and coordination of individual decisions and actions and they must not be manipulated and therefore distorted by both private agents and public officials who are no longer able to master and understand the complexity of a world of uncertainties and asymmetries.

**b) the existence of asymmetric information disrupts the rules of the market.**

Contractual relations between agents are generally asymmetrical from the point of view of their respective informational knowledge and the always uncertain nature of the compliance with the contracts (for a debtor vis-à-vis the creditor) or correspondence with the expected performance of the co-contractor (in the context of a labor contract for example) or the expected qualities of the purchased products, or hidden defects, especially on the second-hand goods market (see Akerlof's study on the "Lemon Market "). This

founding article has subsequently given rise to a considerable number of articles and works on the one hand to extend to other types of market (insurance, finance, work, etc.) and on the other hand to theoretical deepenings which have been at the origin of many Nobel prizes in economics, in the field of market finance in particular. Let us summarize Akerlof's demonstration.

Let  $q$  be the quality index of used cars, where  $q$  is a random variable distributed uniformly over the interval  $[0, 1]$ . The average quality of a car is then the mathematical expectation of  $q$ , or  $1/2$ . The market is made up of a large number of buyers and sellers. Buyers have a reserve price of  $(3/2)q$  for a quality vehicle  $q$ , while sellers want to get at least  $q$  of their car. It is assumed that the buyers are risk-neutral, that is to say that in the ignorance of the quality of the vehicle they have in front of them, they evaluate it on the basis of expectation or anticipation of its quality, and are therefore willing to pay  $3/2 * 1/2 = 3/4$ . If the quality of each vehicle were observable, each seller could sell his vehicle at a price at least equal to  $q$  (because there are buyers willing to pay  $3 / 2q$ ), and each car would be sold at a price between  $q$  and  $3 / 2q$ . If the quality of the cars is not observable by the buyers, then any buyer is ready to pay  $3/4$  for any vehicle. In this case, the holders of vehicles of quality higher than  $3/4$  can not find a taker and exit the market. The quality of the remaining vehicles is then between  $0$  and  $3/4$ , with an expected quality of  $3/8$ . Knowing this, buyers are willing to pay only  $3/2 * 3/8 = 9/16$ , causing the sellers of cars whose quality is higher than  $9/16$  to exit. By repeating the reasoning, it is deduced that only zero quality vehicles sold at zero prices remain on the market.

In the presence of asymmetrical information, the market is thus unable to select the best products and determine equilibrium prices. On the other hand, we see that we are facing a process of eliminating the best products by adverse selection.

So there is a real "market failure" that follows, not from its absence, as in the case of public goods, but because of its intrinsic dysfunction. Many other cases of asymmetric information can be found in other markets such as the labor market in which employers (job offerers) are never assured that their expectations, as to the qualifications of the people they will hire, will be satisfied and, on the other hand, employees (jobseekers) are also asymmetrically informed about the working conditions in the company and about their career prospects and compensation. This insurmountable asymmetry makes it possible to account for the phenomena of labor market segmentation, discrimination and adverse selection. Another market, that of credit, also presents a problem of information

asymmetry between borrowers (households and businesses) and lenders (banks and credit institutions). Effects similar to those of the labor market are obtained in terms of segmentation, discrimination and adverse selection. Even the stock markets, where access to information is a priori the most symmetrical, the freest and the most egalitarian, there is also a strong asymmetry of information that results in mimetic behaviors that lead to speculative bubbles, which end up bursting into financial crises. In the stock market, which is at the very heart of the capitalist market economy and its symbolic representation the most emblematic, the law of supply and demand, expression of the perfect symmetry of markets, can not exist. Indeed, when the price of a stock increases, its profitability also increases which encourages to buy even more. It is the opposite process that occurs in case of decline without any opposite symmetrical force coming to restore the equilibrium. Ultimately, no market escapes the informational asymmetry and therefore to adverse selection effects.

But asymmetric information can also provoke, after the signing of a contract or because of a sectoral or macroeconomic policy, another pernicious effect: moral hazard. This effect has mainly been highlighted for insurance contracts in which an insured can be driven, after having taken out an insurance policy against a risk (accident, theft, water damage, fire, etc.) to be adopted. a lax attitude that increases the risks and therefore the level of the indemnities paid by the insurance company. The effects of moral hazard are found in many other areas. Let's take a few examples of recent controversies about unemployment, banking crises or the budget deficit.

- Unemployment insurance can delay job search and aggravate unemployment,
- The guarantee that central banks offer in case of bankruptcy of big banks ("too big to fail") can encourage banks to take high risks.
- The guarantee that the Central Banks offers to cover the budget deficit of a state may incite them to make reckless expenditure.
- Etc.

Contemporary analyzes of behavioral economic psychology confirm the frequency of asymmetric behaviors.

The psychologist Daniel Kahneman, winner of the 2002 Nobel Prize for Economics for his "pioneering and original work on behavior in uncertainty and risk," and economist Richard Thaler, have shown that there is often a bias in asymmetry of behavior under uncertainty.



For example, they show that most people are more likely to suffer losses than gains of the same amount. This is why in the financial markets non-professional investors are always reluctant to part with an impaired financial asset, which leads to inefficient management of their securities portfolio. This "aversion to loss", which is found in animals, should not be confused with risk aversion or dispossession (I tend to think that what I own is always worth more than the market offers me). If I have to take a risky decision on a potential gain and if I have a risk aversion, I adopt a solution that is suboptimal but safer. But if I have to make a risky choice leading to a loss, I am willing to take more risks, provided I have a chance, even minimal, to reduce my loss. Similarly, agents are sensitive to scale effects. I do not react in the same way on a probability between 0.99 and 1 as between 0.2 and 0.21 and in general there are differences of behavior near the extremes of probability (close to 0 or 1). As a result, this has implications for the insurance market or financial markets (in terms of price rigidity of financial assets due, for example, to an under-reaction of agents to bad news) that contradicts neoclassical theory where agents are expected to always make choices that maximize their intended utility. These cognitive biases lead to "normal" behaviors that can be considered "irrational" from the point of view of standard neoclassical theory. Other examples can be found in other markets (labor, raw materials) that show that public policies to act on the markets are perhaps wrong about the causes and factors of these rigidities or viscosities. Overall, it is asymmetry and not neoclassical symmetry that is the norm for the behavior of agents on the markets.

**c) Asymmetric economic and social relations in Ricardo-Marxist, institutionalist and evolutionist theories.**

**1. For classical economists** from Smith to Ricardo to Malthus, Sismondi and Marx, market prices reflect the prices of production, which are themselves determined by the value of goods and services in terms of "quantity of labor". It can be "incorporated" in goods or it can be "bought", it can be "concrete" (hours of work) or "abstract", as "average social standard" of labor time needed to produce "goods" ". Marx, like Ricardo, argues that "market prices" (the concrete reality) revolved around "production prices" which gravitated around "values" ("abstract social working time" unobservable) which are norms. abstract. But in marx's theory of value, the "quantum of abstract social work" is determined, not in the sphere of the market but in the secret laboratory of production "where the" social relations of production "are formed which are fundamentally asymmetric between agents belonging to social classes with radically divergent economic interests. The "wage relationship" is not a "symmetrical" relationship between suppliers and job-seekers, but an

asymmetrical "operating relationship" that generates "surplus value" which is itself an "abstract norm" (unobservable) around which gravitates the "rate of profit", observable and concrete. It is this fundamental asymmetry between social classes which is the source of the general dynamics of the capitalist market economy, both in the short term (recurrent crises) and in the long term (a downward trend in the rate of profit and the proletarian revolution), the very idea of surplus implies the existence of an asymmetrical relationship capable of accounting for the emergence of a surplus product. The profit rate, the salary and the rent are not equilibrium "prices" (on capital, labor or land markets) but indicators or asymmetric distribution variables of a surplus product or an economic surplus. Social asymmetric laws (decreasing returns, land scarcity), demographics (overcrowding laws of Malthus) or "social" (Ricardo, Marx), explain the inevitability of downward trends in the rate of profit and the long-term evolution towards a "stationary state" which is a "stable" state within the meaning of the general theory of systems. It is a state of absolute stability and symmetric equilibrium. This is a state of absolute stability and symmetrical equilibrium that results

of asymmetrical relations. Indeed, the permanent and maximum search for profit leads to over-accumulation of capital and a tendency to lower the rate of profit, which can only be counteracted by the periodic occurrence of increasingly serious economic, financial and social crises that destroy of capital, momentarily increases the rate of profit and favors the concentration of capital. Class relations are more and more asymmetrical to the breaking point that triggers a revolutionary period. It then belongs, according to Marx, to the social class of workers who are under the yoke of capitalist social exploitation, to propose a new model and system of production that transcends the old, frees the dominated social classes and opens the way to a new quantitative and qualitative growth of the productive forces in the framework of new relations of production which will remain asymmetrical ("dictatorship of the proletariat") for a more or less long time to gradually give way to a society freed from all exploitation and asymmetric alienation. It is interesting to note that this new economic system that Marx had scarcely envisioned is characterized above all by the radical lifting of all the economic uncertainties and asymmetrical relations between social groups. Socialism, as an intermediate step towards communism, opens up to central planning the possibility of ex ante social validation of the products of social work and thus the suppression of the market economy, uncertainty and asymmetrical relations attached to it. The central planner, who is supposed to answer a priori the needs of the whole society, replaces in a certain way the secretary or the auctioneer of the neoclassical theory of the

general equilibrium. It is surprising to note that Soviet theorists of socialist planning were mostly mathematicians (Kantorovich, Nemchinov ...) who reflected in a general neo-classical framework in which price signals were calculated ex ante by the central office planning to achieve the perfect co-ordination of all productive activities according to a hierarchy of social needs necessarily rationed by natural resources, technical means and limited labor skills.

**2. The current of evolutionary economists** tries to understand the long-term dynamics of the world economic system from the notion of intrinsic imbalance specific to the market economy. They introduce into the economic analysis dynamic processes, notions of evolution, selection, diffusion, cumulative effects, innovations, accidental causes, irreversibility ... which have unpredictable large-scale effects. and that can not be resorbed easily, quickly or automatically by the game of the only rules of the market. The idea of uniform undifferentiated agents in their behavior must be abandoned and their heterogeneity recognized not only in terms of their own rationalities, their divergent strategies and their respective time horizons (degree of uncertainty), but also and above all of their contradictory and asymmetrical relations in terms of the power struggle. The field of evolutionary analysis then shifts the question of short and long-term balances to the idea of "complex" systems subject to long trajectories, like the evolution of species in biology. The phenomena of chance and selection then appear in these "trajectories" which can only be understood and analyzed by integrating the long time of history and the non-linear nature of the "paths" traveled. How have some innovations and technologies managed to become dominant? How do some companies impose themselves? How have institutions gradually been shaped? What is the role of "chance and necessity" in these evolutions? How does the emergence of cultural norms and social norms expand or limit the scope of possibilities in systemic evolutions? All of these issues imply the existence of asymmetrical relationships at all levels.

## CONCLUSION

Economics includes currents of thought within or on the margins of neoclassical theory that have sought to relax the most unsustainable assumptions of the idealistic view of the model of pure and perfect competition (see the theory of rational expectations or theories imbalance, for example). But it is outside the neoclassical current, among the heterodox (Keynesian and post-Keynesian, neo-institutionalist, evolutionist, new international political economy, regulationist, etc.) that the notions of inequality, rupture, agglomeration, divergence, power, domination, etc., which implies that asymmetric relations dominate the

functioning of market economies, in terms of both structures and behaviors as well as long-term and short-term adjustments. However, these ideas remain scattered and do not yet constitute a solid alternative theoretical corpus that would make asymmetrical relations the norm of the economic theory of the market.

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