

PAUL KRUGMAN

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The American economist Paul Krugman has contributed to the development of economics in particular through his pioneering article on the instruments of economic analysis of the international economy, a brilliant economic analysis of key economic problems of the current times, a positive example that good economic science can be expressed also in a non-technical language. We see Krugman as an economist who commands a refreshing style, which has helped him in achieving the title of "one of the most read economists in history". Krugman has focused on



scientific work in the following fields: international trade, strategic trade policy, currency exchange rates in the conditions of a target zone, speculative attacks on a currency, economic geography. Krugman is (together with Maurice Obstfeld) the author of one of the most prestigious books in the field of international economics "International Economics: Theory and Practice". Paul Krugman is remarkable for his originality and elegance in theoretical thought and for many is unsurpassable in the simplicity and at the same time clarity of his professional style.

Paul Krugman was born in 1953 and grew up in a suburb of New York City, where he attended the local public secondary school. He continued his studies at Yale College, where in 1974 he obtained a B.A. As he himself says, he attended only the minimum number of economic courses required for the field of economics. It is noteworthy that Krugman during his first years at university completed a significant number of history courses, where these were quite outside his field of study. He himself acknowledges that "history was his first love", he studied mathematics only to a limited extent, but what he needed from this field of studies, he mastered later. In the first years of his study he attended seminars given by the economists Tjalling Koopmans and William Nordhaus. It was in the framework of these seminars that Krugman wrote an essay which interested Mr Nordhaus so much that he offered the young Krugman work as a research assistant. Paul Krugman obtained a prestigious scholarship from the National Science Foundation, allowing him to study at any university. Due to the personality of Mr Nordhaus Krugman chose MIT, where he began to study economics in September 1974. It was by chance that he belonged to a group from which emerged economic advisers to the president, a Mexican minister of finance, the representative of the Portuguese central bank, editor of the *European Economic Review*, as well as co-authors of many textbooks on macro-economics. During the summer of 1976 Krugman came into his first contact with economic policy, when he was one of the students working at the Portuguese central bank on a project led by Professor Richard Eckaus. It was at this time that he realised the strength of simple economic theses, but also the uselessness of theories having no realistic application. He admits that in Portugal he became "allergic" to models demonstrating that a potentially useful policy exists, but not demonstrating any way of identifying it. In 1977 Paul Krugman returned to Yale as an assistant

and worked there until 1980. During these three years Krugman achieved his first significant successes. In 1980 Paul Krugman returned to MIT to the post of a senior lecturer. In 1982 Krugman was contacted by Professor Martin Feldstein from Harvard, who at that time was chairing the Council of Economic Advisers to the Reagan administration. Krugman accepted his offer for the position of an expert of international economics and during the academic year 1982/1983 worked in this position. In 1984 he again returned to MIT, this time to the position of professor. In 1994 Paul Krugman accepted the place of professor at Stanford. This move proved to be only temporary, when in August 1996 he again returned to MIT. Paul Krugman currently works at Princeton University.

Krugman is called one of the greatest popularisers of economics in the best meaning of the word. Up until the year 2000 he worked as a columnist in the on-line journal *Slate* and in the prestigious magazine *Fortune*, today he contributes regularly to the *New York Times*. Besides this, Paul Krugman is working on various research projects in the framework of the National Bureau of Economic Research, he is a member of the Council of Advisers in the Institute of International Economics, a member of the Econometric Society and the prestigious American Academy of Arts and Sciences.

In 1991 Krugman was awarded the John Bates Clark Medal, granted by the American Economic Association. This award is granted each year to an outstanding economist under the age of 40. Previous holders of this award have included Paul Samuelson, Milton Friedman, James Tobin, Kenneth Arrow, Lawrence Klein, Robert Solow and Gary Becker. His other awards include the Adam Smith Prize in 1995, the Nikkei Prize, which he received together with M. Fujita and A. Venables in 2001 and the Aonso Prize of the Association of Regional Sciences, which he received a year later.



The beginnings at MIT

“There are different ways of doing good economics. You can try to prove deep theorems... or you can do detailed, nitty-gritty empirical work..., but what has always appealed to me, ever since I saw Nordhaus practice it on energy, is the MIT style: small models applied to real problems, blending real-world observations and a little mathematics to cut through to the core of an issue”. These are the words of Paul Krugman which sound so unbelievably easy. It is interesting that it was not learning from books nor the mass production of students that had any influence on Krugman, but individual tutoring and the opportunity to observe a leading figure at work.

At MIT Krugman attended the lectures on the theory of international trade delivered by Jagdish Bhagwati. Of special importance for Krugman's development was the influence of Professor Rudiger Dornbush, who lectured at MIT from 1975 on international finance courses and who together with Stanley Fisher influenced a whole group of doctorands in the field of macro-economics. His other teachers at MIT included: Jerry Hausman (statistics and econometrics), Hal Varian (duality theory), Robert Hall and Robert Solow (empirical macro-economics and dynamic macro-economics).

In 1977 Krugman completed his PhD study after not even three years. He wrote his first large professional work still during his studies. It did not become a component of his dissertation work (Essays on flexible exchange rates, 1977). This work was later developed over the course of a two-month scholarship at the Federal Reserve System, where Krugman realised, that speculative attacks on commodity markets can be applied also to monetary crises (“A model of balance of payments crisis”, Journal of Money, Credit and Banking, 1979). He considered Rudiger Dornbush, who was known for his didactic purity of his papers, as an economist's economist. Over time he noticed a Dornbush's “transformation” to a political guru, since his advice was sought by governments, bankers and institutions throughout the world.

A new approach to the theory of international trade

In 1978 he presented several of his ideas to R. Dornbush, including the possibility of applying knowledge from imperfect competition to the model of international trade. Dornbush considered this idea as very interesting and encouraged Krugman to elaborate it. In July in 1979 Krugman presented his ideas at a seminar held at the National Bureau of Economic Research for leading figures of research in the field of international economics.

He considers his 90-minute presentation of his work as the best 90 minutes of his life. Together with three other works (Increasing returns, monopolistic competition and international trade, Journal of International Economics 1979, Scale economies, product differentiation and the pattern of trade, American Economic Review 1980, Intra-industry specialization and the gains from trade, Journal of Political Economy 1981) Krugman was ranked among the leading figures in the theory of international trade.

What was Krugman's principal contribution to the theory of international trade? At the beginning, Paul Krugman drew on the apparatus of Adam Smith and on the basis of his idea that the division of labour reduces production costs; he tried to explain the apparent contradiction between the logical results of the conventional trade theory and existing trade patterns. Krugman worked with model techniques, which allowed him as a theoretician to go further than conventional simplifications of perfect competition in the absence of scale economies. Up until then international trade had been understood as a phenomenon influenced primarily by differences between countries (Ricardo), relative costs or different factor endowments (Heckscher-Ohlin). But then the question arises, why are we witnesses to a huge turnover of trade between seemingly like economies? Through a prism of monopolistic competition theory we can see that fast growth of international trade occurs between countries with similar factor endowments. From considerations ensuing from the application of one of the market structures to international trade is then but a small step to the application of other market structures (for example oligopoly) to international trade. Krugman's approach meant a radical retraction from Ricardo and brought a development of the model of monopolistic competition in inter-sectoral trade between alike countries.

Economic adviser to the government

Krugman was still conceded as a defender of the welfare state, where he considered this system as the most just social arrangement to date. It was because of this that he was not able to pretend respect for the “policy entrepreneurs”, intellectually self-proclaiming experts, who essentially tell politicians what they want to hear.

The year spent in Washington was for Krugman undoubtedly a great experience, in particular in two fields. It was a valuable experience on the nature of individual processes of economic policy: a primitive and often incorrect understanding of basic economic connections on the part of officials implementing economic policy, often giving preference to convenient advice over opinions which required thorough thinking. Besides the



loss of illusions that one may convince opponents in discussions by better reasoning, Krugman discovered in himself a talent, which he was to also use later: the ability to write a clear and transparent political consideration, which in his case was discovered through writing the annual report of the Council of Economic Advisers in 1983. In the winter semester of 1983 Krugman returned to MIT and began to cooperate intensively with a visiting professor at MIT, Elhanan Helpman from the Tel-Aviv University. These two economists jointly published a work which represented a synthesis of everything that was already known as the "New Theory of Trade", i.e. linking the theory of industrial organisation with the theory of trade. The book *Market Structure and Foreign Trade* became a standard reference book for this new current in the theory of international trade.

The theory of exchange rates and target zones

In the second half of the 1980's Krugman's interest shifted to the field of international policy, to more applicable issues. While in his earlier works Krugman had concentrated on weighty issues of the type: why does international trade exist?, later he began to apply the MIT style, which he took over from Nordhaus. He focused on such problems as: how to reduce third world debt, the functioning of the EMS, etc. Krugman's model of monetary zones "Target zones and Exchange Rate Dynamics", *Quarterly Journal of Economics* (1991) was one of the most significant and influential works in its field. Articles focused on the theory of exchange rates and target zones are among the most important of Krugman's work.

The collapse of the Bretton-Woods system and the shift to a managed floating regime encouraged hopes that floating currency exchange rates would protect economies from disturbances and allow a more stable implementation of monetary and fiscal policy. However, fluctuations of nominal as well as real exchange rates were more dramatic than had been expected and had a greater influence on domestic economies. For example, the mix of fiscal and monetary policy realised in Great Britain in 1980 led to a great real appreciation of the currency, causing a recession and harming international competitors. In this period it was not known why currency exchange rates were so unstable. A theory of a system of target zones was lacking. Krugman dealt with this issue in his monograph *Exchange Rate Instability* (1988), as well as in two published articles. His theory was based on the belief that capital markets are not sufficiently efficient and trade flows react slowly to exchange rate swings in a floating regime. From the short-term aspect exchange rates have little influence on trade flows since business people expect greater

fluctuations. Exchange rates have a tendency to clean up markets and fluctuate, because the reaction of trade flows is insufficiently elastic, so the original movement then has a growing effect on the instability of the exchange rate.

In his analysis focused on exchange rates Krugman analysed also the behaviour of exchange rates in a target zone. He demonstrated that a credible target zone has a stabilising effect on a currency regime. If an exchange rate is near the upper limit of the zone, asymmetric expectations of a future decline lead the investors to a lower demand for the currency. Thus its exchange rate is decreased. The opposite reaction occurs when an exchange rate is near the bottom of the zone. Through this behaviour the exchange rate is essentially stabilised. If the target zone is not completely credible there is the possibility of speculative attacks on the currency with the aim of bringing about a collapse of the whole system. His articles focused on exchange rate theory and target zones represent a very significant contribution of Krugman's.

Krugman – the populariser of economics

The year 1990 represented a turning point in Krugman's career. He had already achieved an academic standing in international economics, but he was still not the Krugman who would be eagerly read and quoted in the recognised professional world. His book *The Age of Diminished Expectations*, published in 1989 became a book on contemporary economic problems, providing answers to questions such as: how and why do we have to live "in an age of diminishing expectations, an area in which our economy has not delivered very much, but in which there is little political demand that it do better?". The most important problems which he focused on in his book were: slow economic growth, increasing income differentiation, chronic unemployment, but also the symptoms and side-effects of inflation, the current deficit in the balance of trade and the budget deficit. After several years it became, today a cult book, one of the pillars of economic education in the USA. According to experts this is a book that does not fail to address various sophisticated groups of readers. The book also contains Krugman's famous classification of the three types of economic writing: "Greek letters, up and down and airport". By Greek letters he means the way by which economists - professionals communicate with one another, the second type (up and down) represents the usual content of business reports of the type "the market went up in asset trading" and the third type represents paperbacks that fill the shelves of bookshops at airports and predict either the collapse of civilisation or the dawn of an economic boom, etc. As Professor Colli-



erz Frieie from the Berlin University notes, Krugman uses “Greek letters” in his works, but still strives for correctness and intelligibility of their content.

In the 90’s Krugman focused on economic geography. In his book *Geography and Trade*, MIT Press 1991, he linked economic knowledge with events from history, explaining the localisation dimension of economic activities.

His last two books *Peddling Prosperity* and *Pop Internationalism* represent the critical side of the popular writing of Paul Krugman. Krugman does not consider it important only to argue and comment on the burning economic topics of the day. Fearlessly, he plunges into discussions with those, who consider themselves to be the leading figures in the economic field, where they have certain gaps in their latest knowledge of economic science. Krugman’s philosophy for life as an economist and scientist is typically formulated by him into basic research rules:

1. Listen to the Gentiles
2. Question the question
3. Dare to be silly
4. Simplify, simplify.

Krugman in his first rule recommends being attentive to everything presented by intelligent people regardless of whether they have habits similar to ours or talk in a similar analytical language. Economists should, according to the second rule, occasionally ask themselves whether they are putting themselves the correct questions, i.e. whether they are heading in the right direction. Often other questions prove to be easier to answer as well as more interesting. Krugman’s third rule is founded on his conviction that the age of creative unconventionality does not belong to the past. He himself realises that the safest and to a certain extent also the easiest way in which an author ensures publication for himself from the field of economic theory is to devise a conceptually undemanding, but mathematically widespread expansion of a known model.

In Krugman’s view a new theory or work in any new field requires much more intellectual discipline than work in an already recognised field or specialisation.

Through his 4th condition Krugman underlines the importance of expressing one’s thoughts in such a manner that helps the topic to be understood without great effort. Adherence to this principle helps both the author keep his own research under control and also enables his audience to familiarise itself with the knowledge. The strategy is thus: try to express your ideas always as simply as possible and trying for minimalistic models will lead the author towards the essence of what he is trying to express.

Krugman himself has endeavoured to use the approach, which he himself has termed the “minimum neces-

sary model”, repeatedly in various fields: the use of the factors of production, a model of the industrial sector for an explanation of the function of monopolistic competition in trade, an analysis of symmetrical countries and reciprocal dumping, etc. The reverse side of this approach is the fact that many economists consider knowledge embodied in a simple model as trivial, but they, as Krugman comments, forget that such simplicity is often the result of many years hard studying.

Current issues of the day

In recent years Krugman has become the most significant speaker for those who are in favour of the regulation of international capital flows not only in the form of surveillance, but also with the help of restrictive measures. Krugman claims that what is good for a stable economy of the USA type – the concept of a free market including within itself also floating exchange rates and the free movement of capital – need not necessarily be good for less stable economies. Therefore he is unequivocally inclined to the control of capital movements. In the journal *Foreign Affairs* Krugman returns to this topic and recalls Austria’s problems at the start of the 1930’s. In the spring of 1931 the largest Austrian bank *Credit Anstalt* found itself on the verge of collapse. The Austrian government could not simply stand by and watch it happen. The issue of a large amount of money, which was necessary to rescue the bank, brought about a significant outflow of capital from the country. The reaction to this situation could have been dual: abandonment of the gold standard and acceptance of a floating exchange rate. The fall of the schilling would however have brought about a collapse of confidence in the country, which had been damaged by World War I and over which still hung the threat of hyperinflation. Austria therefore turned to the recently founded *Bank for International Payments*. Nevertheless, its help came late and in an insufficient volume. In the end the desperate government introduced capital movement controls. Krugman asks what can the “swat team” of the *International Monetary Fund*, which in the case of problems immediately enters on to the scene, offer in a similar situation today. What can contemporary economic experts advise? In his view the answer sounds almost cruelly simple: they simply watch the global crisis. According to Krugman the causes of many of today’s problems are almost identical to those of Austria’s in 1931 and therefore he recommends using the same solutions.

Krugman believes that the basis of all problems is the fact that everyone wants to achieve concurrently three incompatible goals: a stable exchange rate, full convertibility of the currency and an independent monetary policy. Achieving these three goals concurrently is not



possible and in particular unstable economies should consider capital controls, or the limitation of its free movement, because they are not able to maintain a stable exchange rates. Krugman puts himself the question: "Why was China not affected by the Asian crisis as were all its neighbours?" Because it was able during the crisis to reduce and not increase interest rates, while maintaining a fixed exchange rate (because it has a non-convertible currency). Krugman in conclusion adds that a whole body of economists considers such restrictions as practical where they are already functioning, but protest where they are to be implemented elsewhere.

Conclusion

Krugman at the age of 50 has managed to master three successful careers: to be an innovative theoretician, political analyst and populariser of modern economics. He is considered as a very dynamic scientist, who

is entering "an age of increasing expectations", as one of economist paraphrased one of Krugman's most popular titles.

In conclusion, let us state several of Krugman's authentic ideas: "In fact I am a bit of a romantic who believes, rather in the face of the evidence, that good ideas eventually prevail and make everyone's life better. I am also not an ascetic: I will not sneer at a nice honorarium or a free trip to a pleasant location. But the honest truth is that what drives me as an economist is that economics is fun. I think I understand why so many people think that economics is a boring, but they are wrong. On the contrary, there is hardly anything I know that is as exciting as finding that the great events, that move history, the forces that determine the destiny of empires and the fate of kings, can sometimes be explained, predicted, or even controlled by a few symbols on a printed page... We all want power, we all want success, but the ultimate reward is the simple joy of understanding."

Selection of writings:

Books:

- Market Structure and Foreign Trade (spoluautorstvo E. Helpman), MIT Press, 1985.
- International Economics: Theory and Policy (spoluautorstvo M. Obstfeld), Scott Foresman/Little Brown, 1988.
- Rethinking International Trade, MIT Press, 1990.
- Geography and Trade, MIT Press, 1991.
- Currency and Crises, MIT Press, 1992.
- Peddling Prosperity, Norton, 1994.
- Pop Internationalism, MIT Press, 1996.
- The Return of Depression Economics, Norton, 1999.

Articles:

- Purchasing Power Parity and Exchange Rates, Journal of International Economics 8 (1978).
- A Model of Balance of Payments Crises, Journal of Money, Credit, and Banking 11(1979).
- Target Zones and Exchange Rate Dynamics. Quarterly Journal of Economics, 1991.
- Increasing Returns and Economic Geography. Journal of Political Economy, June 1991.
- Second Thoughts on EMU. Japan and the World Economy 4, 1992.
- Globalization and the Inequality of Nations. NBER Working Paper No. 5098, 1995.