

Economics - Czech Republic

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František Turnovec

Economics - Czech Republic¹

Discussant: Jiří Havel

Introduction

Until the 1989 “Velvet Revolution”, Czechoslovakia was one of the most conservative socialist countries. Even compared to other former socialist countries in Central Europe, the Czechoslovak economy was exceptional in etatization, with only 4% of GDP produced by the private sector (and 10% produced by the cooperative sector) in 1989. After a promising discussion in the 1960s and then the defeat of the Prague Spring at the end of the 1960s, no significant experiments with the liberalization of the economic and political system were implemented in the 1970s and 1980s, and the rigid party nomenclature running the country had to live with the legacy of post-1968 normalization, when the more liberal segments of the Communist Party and of the Czechoslovak political and intellectual establishment were eliminated, expelled from the country, or isolated and persecuted for two long decades.

Together with the rapid change in the political system and a radical economic reform, the transformation of the system of education and of research infrastructure started at the very beginning of the 1990s. In this paper, I try to trace interfaces between the past and present of Czech economic thought and identify its place in world economic thought.

The first section of this paper describes the roots: the birth of Czech economic science in the second half of the 19th century, a short period of development of economic thought in independent Czechoslovakia after World War I, the first period of discontinuity and of domination by dogmatic Stalinism at the end of the 1940s and the beginning of the 1950s, the attempts to cultivate the economic doctrine of socialism in the 1960s, the second period of discontinuity in the 1970s, and a painful effort to overcome taboos in the 1980s. In the second section, I try to characterize the turning point in the development of the discipline at the beginning of the 1990s and changes in the infrastructure of economic research and education after 1993. The third section deals with continuity and discontinuity in the theoretical and methodological orientation of economic science in the country. The fourth section tries to evaluate the major theoretical and practical efforts of Czech economists in the first half of the 1990s, when the economic transition was designed. In the fifth section, I try to provide empirical evidence of the performance of Czech economists on the domestic and international academic market. The last section briefly outlines the prospects for development in the 21st century. Some factual information is provided in tables.

An objective evaluation of events by somebody who was a part of them is almost impossible. The final evaluation of the past requires more temporal distance from the events. My view may be incomplete and some names and events may be missing. Nevertheless, I hope this text sufficiently illustrates two conclusions: first, a totalitarian regime can cut intellectuals and the academic community off from contacts with the international community and for some time even suppress some segments of research and the free exchange of ideas; but no political suppression can fully eliminate independent economic thinking (as was convincingly demonstrated in Havel et al., 1997); and second, in the emerging democratic environment of the 1990s, the Czech economic community succeeded in a relatively short time in returning to world academic standards.¹

¹ The author is grateful to Jiří Havel, Jiří Hlaváček, Milan Sojka, and Vera Sparschuh for valuable comments and information and to Dana Kyselková for assistance in data processing. The results of the author’s research project “Microeconomics of education and evaluation of research performance at universities”, supported by the Grant Agency of the Czech Republic, were used.

1. Analysis of the pre-1989 situation

The development of Czech economic thought² passed through several stages in different political environments.

The first stage began in the middle of the 19th century and finished in the years of the First World War. Its dominant feature was the integration of the Czech Lands in a specific economic and cultural entity within the Austro-Hungarian monarchy when political power was centralized in Habsburg Vienna and when the interests of the Czech nation were promoted only slowly and with difficulties. It was represented by three personalities and by three different approaches.³

František Ladislav Chleborád (1839-1911) wrote the first Czech book on economics, in which he explained the major theoretical concepts of his time, *Soustava národního hospodářství politického* (The System of Political National Economy), 1869. Chleborád declared himself a follower of the American economist Henry Charles Carey and the German economist Friedrich List. In his book, he categorically rejected socialism, both Marxist and utopian. His social and moral enthusiasm for the economic advance of the Czech nation outweighed specialized theoretical reflections.

The pure scientific approach was realized by *Josef Kaisl* (1854-1901). The interests of this highly erudite economist linked practical political activity (he was a Czech deputy of the Austrian Imperial Council in Vienna and for a short time a Minister of Finance in the Austrian government) with his profession of lecturer at Prague University. His main works were *Národní hospodářství* (National Economy), 1883, and *Finanční věda* (Financial Science), 1892 (also published in German and Italian). He concentrated on the sphere of financial science and was a prominent follower of the historical school in economic science.

The Austrian subjective school of the theory of marginal utility found its prominent interpreter in Albin Bráf (1851-1912). Albin Bráf pursued mainly his university activities at the Faculty of Law of Charles University in Prague (although he was for a short time a Minister of Agriculture in the Austrian government). His complete university lectures, texts, and essays were published in *Spisy Albína Bráfa* (The Writings of Albin Bráf), 1913-1915. He drew his knowledge mainly from the German theorists Adolf Wagner and Albert Schäffle and from Carl Menger of the Austrian school. He was critical of the English classics and categorically rejected Karl Marx. His methodology was eclectic and he simply accepted the knowledge he regarded as useful. On the other hand, he could be regarded as a Nestor and the teacher of the whole generation of Czech economists who were active later in independent Czechoslovakia.

The birth of Czech economic thought in the second half of the 19th century did not bring a significant original contribution to economic science; it was rather a mediation of the achievements of world economic thought to the Czech elites under conditions of emerging capitalism in the Czech Lands.⁴

The founding of Czechoslovakia in 1918 created a new situation favorable to the further development of Czech economic thought. This came at a time when new concepts appeared in world economic thought that also strongly influenced Czech economists – the culmination of the Austrian school in the works of Ludwig von Mises, Friedrich August Hayek, and Joseph Schumpeter; the shift in financial theory in the works of Irving Fisher and Gustav Cassel; and the new revolutionary approaches of John Maynard Keynes and others. On the other hand, economic science responded to the economic events of the 1920s and 1930s and was influenced by the practical problems that arose in the new situation of creating a national economy.

It is possible to trace three major tendencies in the development of Czech economic thought in pre-war Czechoslovakia (Vencovský, 1997).

The neo-liberal stream was represented by Alois Rašín (1867-1923), an outstanding politician and the first Minister of Finance of independent Czechoslovakia. His currency reform and fiscal policy were based on the principles of a balanced state budget with minimal budget incomes and expenditures and the gold standard in monetary policy. Rašín presented his theoretical views in the book *Národní hospodářství* (National Economy), 1922.

The second tendency was represented by Karel Engliš (1880-1961), probably the most original Czech economic thinker. He was the author of what is called the teleological theory of national economy (from Greek “telos”, aim or goal), based on the idea that the cognition and understanding of all economic processes should reflect the purposefulness, intentionality, and choice of aims and means in the behavior of all economic subjects. He described his system of economics in many works, the main extensive monograph being *Soustava národního hospodářství* (The System of National Economy), 1938 (also published in English). Engliš's scientific activity was associated with the newly established Masaryk University in Brno (he was one of its founders in 1919 and its first Rector) and Charles University in Prague (he was its last Rector before the communist takeover in 1948). He was also an outstanding practitioner, a Minister of Finance in six pre-war governments, and Governor of the National Czechoslovak Bank from 1934-1939.

The third tendency, the Keynesian stream in Czech economic thought, was represented by Josef Macek (1887-1972). In response to the Great Depression, Macek said that the state budget should be one of the most important means to start production and should substitute for the shortage of private investments. His major and comprehensive work is *Sociální ekonomika* (Social Economics), published in five volumes from 1945-1948.

In November 1939, the Czech universities were closed by the occupying power and scientific life was fully paralyzed. After a short period from 1945-1948, the leading Czech economists (Karel Engliš and Josef Macek as the most prominent, and many others) were persecuted and any economic ideas that contradicted the Stalinist version of political economy were abolished. Economic science was completely subordinated to the political needs of the new ruling establishment. A period of discontinuity started in 1948.

No theoretical Marxist economics were represented in Czech economic thought in the pre-communist period. The only Marxist who taught economics at a university (the Higher School for Political and Social Sciences) before February 1948 was Pavel Hrubý (1914-1994), but he fell victim to the purges not much later than his “bourgeois” colleagues. The main textbooks used at the time were Stalin's “Questions in Leninism”, “Economic Problems of Socialism in the USSR”, and translations of Russian textbooks.

There were a few qualified economists who supported the Communist Party policy. Most of them belonged to the pre-war leftists who emigrated to the United Kingdom and came back to Czechoslovakia in 1945: Ludvík Frejka (1904-1952), Josef Goldmann (1912-1984), Bedřich Levčík (1915), and Eugen Löbl (1907-1987). All of them were persecuted in the 1950s (Frejka was executed in 1952, Löbl arrested and condemned to a life sentence in 1952, Levčík dismissed from his position, and Goldmann arrested in 1952). Because of a shortage of qualified and loyal economists among reliable Communist Party members, all the decisive posts in economic education and research had been filled by mostly young people educated in accordance with Stalinist doctrine, many of them at universities in the Soviet Union. But most of them later became prominent critics of dogmatic Stalinist doctrine.

The development of economic discussion in Czechoslovakia was always closely related to the political atmosphere in the USSR. The first round of debate started after Stalin's death in the mid-1950s. The reform proposals at that time did not exceed the framework of traditional Marxist political economy, focusing on “improving” the planning mechanisms. The second round of discussion started at the beginning of the 1960s, partly as a response to an economic crisis in Czechoslovakia in the early 1960s, partly under the influence of discussions in the USSR (Nemchinov, Novozhilov, Kantorovic, Aganbegjan, Liberman, Lisickin) and in other Soviet bloc countries. The general framework of the discussion can be characterized as a “market socialism doctrine” with some elements of Keynesianism; attacking the state property form; and preferring a collective or group property design for the socialist economy, decentralization, and the employment of economic interests in a “socialist market mechanism”. The most prominent economist of this period was Ota Šik (1919), whose book *Ekonomika, zájmy, politika* (Economics, Interests, Politics), 1962, opened critical discussions about the official economic doctrine. Josef

Goldmann, Karel Kouba, Otakar Turek, Bohumil Komenda, Čestmír Kožušník, Bedřich Levčák, and Jiří Kosta were among the active participants in the intense discussions in 1965-1968.⁵ While the leading reformers did not reject Marxist doctrine in principle, discussion in the second half of the 1960s also brought a new line of thought based on mainstream Western economics, represented by the first studies by Václav Klaus (1941) and Lubomír Mlčoch (1944).

It was an irony of history that most of the reform proposals generated by this discussion were fully implemented (for a restricted time) only after the defeat of the Prague Spring in 1968; and their measurable positive effects contributed to the stabilization of the Gustáv Husák normalization regime at the beginning of the 1970s.

While the period of the 1970s and 1980s can be considered the second discontinuity interval in the development of Czech economic thought (the first being 1948-1956), the development is not fully comparable to the 1950s.

Most of the actors in the 1960s discussions had to leave the universities and research institutions; some of them, anticipating the purges, left the country. Blacklists efficiently prevented most reform economists from publishing at all. Economics was in a special situation, along with other social sciences and the humanities. Considered ideologically sensitive, the social sciences were under the direct supervision of the Communist Party nomenclature (for example, each district committee of the Communist Party in districts with institutions of higher education had a position of Secretary for Higher Education). Scientific and pedagogical degrees were subject to approval by district party committees. In the 1970s and 1980s, an obligatory part of dissertations in economics was a chapter of "Criticism of bourgeois economic theories", in which specific denunciation of home "revisionists" was greatly appreciated. There was a numerus clausus on non-Party members' employment as university teachers, and an academic career was almost unthinkable without Communist Party affiliation. International contacts and mobility were practically restricted to COMECON and less-developed countries and were strictly controlled by the Party nomenclature and secret police. Thus, the situation of economic science in communist Czechoslovakia was even more complicated than in some other CEE countries (especially than in the more liberal Hungary and Poland). Restrictions and repressions segmented the Czech economic community into three different groups: official, unofficial, and exile (Havel et al., 1997).

Promotion rules strongly influenced the research orientation of the "official" segment of Czechoslovak economists. The main research topics, supported by inefficient state research programs, were "Automation of management systems of socialist enterprises" and "Tools and instruments of the centrally planned economy", at best trying to square the circle to find a combination of centralization and decentralization in economic behavior that could be acceptable to Party nomenclature, at worst merely repeating ideological fictions about "the best of all possible worlds" represented by "real socialism". Even loyal or "factual" studies without any critical components but containing facts and figures throwing light on negative trends in the economy were not recommended for publication, but classified as "secret" or "for internal use only" (e.g. macroeconomic studies by Josef Goldmann). The only place where standard modern economics was taught alongside the political economy of socialism was the Graduate School of the Institute of Economics of the Czechoslovak Academy of Sciences (Havel et al., 1997). The group of younger economists related mostly to the Institute of Economics (Miroslav Toms, Mojmir Hájek, Antonín Kotulan, Václav Klaus, Karel Dyba, Jan Klacek, and Tomáš Ježek) contributed to the enriching of economic knowledge by applying analytical apparatus from the neoclassical theoretical background. Even some titles of Western economic classics were translated into the Czech language (Arrow, Allen); a more significant part of the relevant literature came to the country in Russian translations; and Western journals and books were generally accessible in scientific libraries.

It is interesting that the only part of economic science that never lost contact with international development was operations research and econometrics: on the one hand, highly formalized mathematical methodology was beyond the understanding of ideological supervisors; on the other

hand, the philosophy of “the theory of the optimal functioning of socialist economy”, imported from Moscow, was successfully used by mathematically oriented economists to justify some intellectually interesting programs of quantitative economic research. This orientation allowed faculties of mathematics and physics to involve themselves informally in economic research and education; and some economic disciplines were presented as part of mathematics (mathematical programming, game theory, econometrics). The Laboratory of Mathematical Economics (Ekonomicko-matematická laboratoř) of the Institute of Economics, headed in the 1970s and 1980s by Jiří Bouška; the Department of Econometrics at the School of Economics in Prague (VŠE), headed by Bedřich Korda until 1968, when he left the country, then for several years by Jaromír Walter and from the 1970s until now by Miroslav Mañas; and the Department of Informatics and Operations Research at the Faculty of Mathematics and Physics of the Charles University in Prague headed by Milan Vlach were the centers of professional, although rather formal, economic thinking within the limits set by difficult circumstances.⁶ *Ekonomicko-matematický obzor* (Econometric Review), a professional journal with a relatively liberal editorial policy and edited by the Laboratory of Mathematical Economics, provided opportunities for mathematically oriented economists to publish in both Czech and English.⁷ Among the authors were also foreign mathematically oriented economists. The Czech and Slovak authors (Jiří Beck, Jiří Bouška, Martin Černý, Tomáš Gál, Dagmar Glückaufová, Jaroslav Habr, Milan Hamala, Michal Chobot, Miroslav Mañas, Vladimír Mlynarovič, Radomír Očenášek, Jozef Sojka, Vladimír Strnad, Antonín Ter-Manuelianc, František Turnovec, Jaromír Vepřek, Milan Vlach, Jaromír Walter, Karel Zimmermann, and others) belonged to the community of economists and mathematicians who did not participate in apologetic exercises of official mainstream economic doctrine.

Some of the economists who had to leave their profession continued their work as a hobby (Vladimír Kadlec, Karel Kouba, Otakar Turek, Zdislav Šulc, Rudolf Zukal, and others). Their papers were usually distributed in small numbers of copies as “samizdat”, and some of them were published under the names of those who were not blacklisted. There was always some interface between “official” and “unofficial” economists.⁸

There were practically no contacts between the Czech economists active in Czechoslovakia (both official and unofficial) and Czech economists who left the country in two waves after 1948 and 1968. The most prominent person in exile was undoubtedly Ota Šik, who received a professorship at St. Gallen University in Switzerland. Bedřich Levčík became the Director of the Vienna Institute of International Economic Comparisons (WIIW), where Petr Havlík and Zdenek Lukáš are still working. Jiří Skolka became famous for his activity in the International Input-Output Association and in the prestigious Austrian Institute for Economic Research (WIFO). Jiří Sláma and Pavel Štiller worked at the Osteuropa-Institut in Munich, Jiří Kosta was a professor at J. W. Goethe University in Frankfurt and Tomáš Gál at the Fernuniversität in Hagen t. The University of Reading in the UK hosted Luděk Rychetník; Jan Krejčí stayed at the University of Lancaster; Pavel Pelikán taught at the University of Stockholm; and Bedřich Korda instructed at the University of Edmonton. The largest group of economists were active at universities in the US: Josef Brada, Jaroslav Hejda, Lubomír Hejl, Karel Kánský, Jan Kmenta, Oldřich Kyn, George Staller, Jan Svejnar, Alex Wynnyczuk, Milan Zelený, and others. Among economists in exile, Jaroslav Vaněk gained particular prominence in theoretical economics (the concept of the labor-managed economy) and Jan Kmenta as one of the leading econometricians.

Ideological control was somewhat reduced in the 1980s. The crisis of the regime was reflected by a more pragmatic segment of the political establishment.⁹ Attempts at minor reforms opened some space for economic discussion. A new research institute was established within the Academy of Sciences, the Institute of Forecasting, headed by Valtr Komárek. The Institute of Economics of the Academy of Sciences, later with the Institute of Forecasting, gathered together an interesting collection of researchers representing a rather broad spectrum of neo-liberal, neo-Keynesian, and unorthodox Marxist currents (Oldřich Dědek, Karel Dyba, Vladimír Dlouhý, Mojmír Hájek, Jiří

Hlaváček, Miroslav Hrnčíř, Kamil Janáček, Tomáš Ježek, Václav Klaus, Antonín Kotulán, Karel Kouba, Václav Kupka, Jan Mládek, Lubomír Mlčoch, Alena Nešporová, Miroslav Ransdorf, Vladimír Rudlovčák, Miroslav Toms, Dušan Tříška, Otakar Turek, Luděk Urban, Růžena Vintrová, and Jaroslav Vostatek).¹⁰ The major research output was the long-term prognosis to 2010, reflecting negative macroeconomic trends and advocating deeper economic and political reforms. In another more radical study, “Dominant features of the new socio-economic development program for Czechoslovakia”, finished before November 1989, reform principles of mixed ownership, transformation of enterprises into joint stock companies, forms of self-management with other options of privatization, price liberalization, foreign trade liberalization, and the creation of money and capital markets were considered. But it was too late to reform the regime, which lost any ability to adjust to a new development.

2. Redefinition of the discipline since 1990

From a mid- and long-term perspective, the main problem was to introduce new topics and re-establish academic standards in economic research. A characteristic feature of economic research in Czechoslovakia was isolation from world standards in presenting research output. With a few exceptions, related mostly to operations research and econometrics, the publication of results was oriented exclusively toward Czech (and Slovak) economic journals publishing in the Czech language and subject to undemanding reviewing procedures.¹¹ To overcome isolation and the undemanding provincial character of economic science, it was necessary to enter the international academic market.

The main positive development of the 1980s was the transfer and “translation” of world economic thought into the Czech environment. Only after 1989 did any restrictions and forms of censorship disappear – for the first time since 1948. A full range of topics and methodological approaches were opened to Czech economists.¹²

Czech economists from exile played a very important role in the revival of economics as a science. They were helpful in providing the missing economic literature, in ambitious projects of reforms of economic education and research, in offering scholarships and fellowships for Czech students, teachers, and researchers, and in fund-raising to support development projects in research and education. Jan Svejnar played an exceptional role, initiating a new graduate (PhD) school in theoretical and applied economics at Charles University (the Center for Economic Research and Graduate Education) and participating for eight years as the Director of the newly established Economics Institute of the Academy of Sciences of the Czech Republic in restructuring economic research. Josef Brada, Zdeněk Drábek, Karel Kánský, Jan Kmenta, Jiří Kosta, Oldřich Kýn, Luděk Urban, Luděk Rychetník, Jiří Sláma, George Staller, Milan Zelený and others actively participated in academic and advisory activities.

The new elite appeared from one day to the next, comprising several groups of researchers related to the reform activities of the Economics Institute and the Institute of Forecasting in the 1980s, together with some university economists, “underground” economists, exile economists, and even some more enlightened members of the old establishment (Marie Bohatá, Vladimír Benáček, Oldřich Dědek, Vladimír Dlouhý, Karel Dyba, Jan Hanousek, Jiří Havel, Jiří Hlaváček, Vratislav Izák, Kamil Janáček, Tomáš Ježek, Jiří Jonáš, Jan Klacek, Václav Klaus, Valtr Komárek, Antonín Kotulán, Karel Kouba, Michal Mejstřík, Pavel Mertlík, Jan Mládek, Lubomír Mlčoch, Milan Sojka, Miroslav Ševčík, Zdislav Šulc, Jan Švejnar, Josef Tošovský, Dušan Tříška, Zdeněk Tůma, Luděk Urban, Josef Zieleniec, Milan Žák, and others). Some of them (Marie Bohatá, Oldřich Dědek, Vladimír Dlouhý, Karel Dyba, Jiří Havel, Kamil Janáček, Jiří Jonáš, Jan Klacek, Václav Klaus, Valtr Komárek, Pavel Mertlík, Jan Mládek, Zdeněk Tůma, and Josef Zieleniec) left academic economics and economic research during the 1990s to join government offices, the banking sector, or international institutions, mostly forever. In the mid-1990s the first PhD students (Radim Boháček, Michaela Erbenová, Tomáš Holub, Evžen Kočenda, Josef Kotrba, René

Levínský, Lubomír Lízal, Daniel Münich, Daniel Narwa, Ondřej Schneider, Miroslav Singer, Peter Silárszky, Karel Soukeník, Kresimir Zigic, and others) graduated from the American and European universities and the prestigious Czech PhD schools, and the formation of the elite in economics returned to a standard process of gaining a reputation through professional research activities, rather than by active participation in the political process or on the merits of a past “reform” reputation.

Institutional reform of the system of higher education, including economic education, was the priority agenda after 1989. The easier part of reform was re-establishing the basic attributes of university education: academic freedom and university self-administration, legally guaranteed by the new act on higher education approved in 1990. This act allowed the creation of new regional universities and new faculties at existing universities and eliminated the Prague and Bratislava Schools of Economics’ monopoly on economic education.

A new, 1998 act on higher education transformed the state universities into public institutions, and private institutions of higher education with state accreditation were allowed.¹³ High demand for economists increased the number of students dramatically.

The more difficult part of the reform – the restructuring of study curricula – required more time, but significant changes here are observable. New prestigious programs appeared: one example of a very successful initiative to transform economic education is the Center for Economic Research and Graduate Education (CERGE) of Charles University, an international PhD program in theoretical and applied economics initiated in 1991 by the American economist of Czech origin, Jan Svejnar, with the support of Charles University in Prague, Pittsburgh University, USAID, and European Union programs.¹⁴ A new Bachelor’s and Master’s program was developed at the Institute of Economic Studies of the Faculty of Social Sciences, Charles University in Prague, with a high proportion of courses taught in English (about 30%) and intensive international exchange of students.¹⁵

The original idea of reforming research institutions – to return research fully to the universities – failed for various subjective reasons: the Academy of Sciences survived, although in reduced and more democratic form. The change significantly reduced the infrastructure of economic research.¹⁶ The Institute of Economics of the Academy of Sciences was dissolved in 1993, and the new Economics Institute was established (under the leadership of Jan Svejnar) on a rather different design: it now remains more a department of economics on the model of a good American university, accenting researchers’ individual projects that end in publications in prestigious journals and that increase their individual market value. There are no continuous monitoring of the Czech economy, high-quality prognostic activities, independent reflection on economic policies, or alternative strategies for the country’s economic development. As a significant contribution to the economic community, the new Economics Institute has an excellent library, organizes meetings with interesting foreign professors, and supports the PhD program CERGE.

3. Core theoretical and methodological orientations

The main tendencies in economic thinking with the roots in the past established themselves after 1989.

The most influential during the first half of the 1990s were neo-liberal theories (Vladimír Dlouhý, Tomáš Ježek, Václav Klaus, Dušan Tříška), which significantly influenced the economic transformation project. They reflected the main orientation of the radical reform supporters during the discussions at the end of the 1980s and the (at least rhetorical) political affinity with Ronald Reagan and Margaret Thatcher. Historical tradition links this stream to the legacy of Karel Engliš.

Neo-Keynesian approaches (Vratislav Izák, Jan Kláček, Pavel Mertlík, Milan Sojka) became more visible in later stages of economic transition, reflecting problems with implementing neo-liberal ideas in the transformation process. Politically, these approaches are close to the Social-Democratic orientation. Historical tradition links this stream to Josef Macek.

We can speak also of post-Marxist economic thinking (Jiří Dolejš, Miroslav Ransdorf and other people related to the Communist Party of Bohemia and Moravia), having some historical links to Miroslav Toms' efforts in the 1970s and 1980s.

Most economists can be considered "mainstreamers", not raising hot ideological questions and pragmatically dealing with "technical" problems of economic mechanism, e.g. financial economics (Michal Mejstřík), international trade (Vladimír Benáček), and economic integration (Luděk Urban, František Turnovec). As a specific discipline studying the transformation of the socialist economy into the standard market economy, the economics of transition combines many partial approaches and empirical studies (Jan Svejnar).

New topics with no pre-war traditions were also introduced in economic education and research after 1989, such as institutional economics (Lubomír Mlčoch), constitutional economics (Karel Kouba), industrial organization (Kresimir Zigic), and public choice (František Turnovec).

Quantitative disciplines have a traditional position in economic research and education. The shift from operations research to theoretical and applied econometrics can be observed (Jan Hanousek, Jan Ámos Víšek). Operations research and theoretical and applied game theory survived in a somewhat reduced form (Miroslav Maňas, Jaroslav Ramík, Karel Zimmermann). Most of the former operations researchers converted relatively smoothly to microeconomics or joined the analytical and executive divisions in banking sector.

4. Thematic orientation and funding

Economic research at the beginning of the 1990s faced several difficult problems. The demand for new concepts to implement rapid transition from the centrally planned economy to a standard market economy led to rather chaotic discussions, lacking traditional academic attributes, on the steps to be taken in transformation. In a sense, this is understandable: the state had enormous power and responsibility for unprecedented economic reforms. There was no time for deep analyses and careful evaluation of options. Part of the economic community became directly involved in everyday politics in high governmental offices and in the parliaments. The invasion of outside economic advisors of various ranks and qualities was part of the game and supported the impression that a straightforward interpretation of simple neoclassical diagrams was a "scientific way" of solving economic problems.

Immediately after November 1989, the dispute over radical systemic economic reforms took priority on the agenda in the Czech economic community. Two basic scenarios were discussed. Reformers of the 1960s, whose views and ideas since then had developed in a more market-oriented direction, dominated one group of economists, headed by František Vlasák, at that time the Deputy Prime Minister of the Czech Republic. The second team, headed by Václav Klaus, at that time the Minister of Finance of Federal Czechoslovakia, and also represented by Tomáš Ježek and Dušan Tříška, had a clear neo-liberal background. Both teams agreed on the first steps: rapid macroeconomic stabilization, price liberalization, foreign trade liberalization, and a rapid switch to convertible currency. The significant differences appeared in proposals for further steps. While Vlasák's team advocated a de-etatization of state-owned companies and their restructuring, to be followed later by the process of privatization on the basis of individual projects, the Klaus people brought into the discussion a program of large-scale privatization from the very beginning (with the project of a voucher privatization game as a significant element), with later restructuring mediated by the capital market. Timing and the role of government were also points of disagreement between the two teams.

The transformation scenario adopted by the Federal Parliament of Czechoslovakia in 1990 included elements of both concepts, with a preference given to a fast, large-scale privatization at the start of the reforms.

The objective of this paper is not to evaluate the Czech economic transformation,¹⁷ but rather to observe the impact of the hectic development of economic discussions and implementation of

their results at the beginning of the 1990s on the development of Czech economic thought. The transformation dispute had its roots in the past, in reform attempts in the 1960s, in the frustrating experience of the 1970s, and in the slowly developing discussions of the 1980s. But in the opinion of the author, its influence on the development of economic science in Czech society was not very fruitful. Under the surface of seeming economic dispute, one of the characteristic features of the forty years of post-war Czech economic thought appeared again: the ideologization of economics, elements of fundamentalism substituting for careful economic analysis, apologetic elements, and the invasion of political interests pretending to be economic truths.

To support research and development, the Parliament of the Czech Republic established in 1993 the Grant Agency of the Czech Republic (GACR) as an independent institution whose task was to promote progress across the whole range of scientific and technological development in the Czech Republic. The function of the GACR is to provide, on the basis of public competition, financial support for research and development projects submitted by individuals and organizations. The basic funding is provided by the state budget (the Agency has a separate chapter in the state budget). The Parliament elects the GACR's supervisory board. Projects can be submitted in five areas; economics is included in the area of human and social sciences. The total annual budget of the GACR is about 1 billion Czech crowns (about 300 million US dollars). The average support for one project in economics is about 1.3 mil. Czech crowns (40,000 US dollars), usually over three years. The rejection rate is about 70%. Every year, the Agency supports 45 to 60 projects in economics.

Support for fundamental research is also provided by the Grant Agency of the Academy of Sciences of the Czech Republic, which is open to public competition (i.e. not only to projects submitted by the institutes and employees of the Academy).

There are closed research support schemes at individual institutions, e.g. the Grant Agency of the Charles University, which supports only projects submitted by employees and students of the Charles University.

Smaller individual projects are supported by Hlavka Foundation, a private institution focused on research in economics, but in general the culture of private funding of research activities has not developed yet in the Czech Republic.

5. Public space and academic debates

Professional journals played an important role in economic debates before and after 1989:

Politická ekonomie (Political Economy) was founded in 1952, was published by the Institute of Economics of Czechoslovak Academy of Sciences as a monthly from 1952-1991, and has been published by the School of Economics in Prague as a bimonthly since 1992. Papers are published mostly in the Czech and Slovak languages and occasionally also in English. It is the only Czech economic journal covering the fundamental economic research documented in Social Science Citation Index and EconLit Index.

Prague Economic Papers was founded in 1992; it is published by the Prague School of Economics as a quarterly and focuses on economic theory and economic policy. It is monitored by EconLit Index. Papers are published exclusively in English. Before 1992, it was published twice a year under the title Czechoslovak Economic Papers.

Finance a úvěr (Finance and Credit) was founded in 1951, was published by the Ministry of Finance until 1996, and has been published bimonthly by the Faculty of Social Sciences of Charles University in Prague in cooperation with the Czech National Bank and the Ministry of Finance since 1997. It focuses on financial economics and is monitored by the Social Science Citation Index and EconLit Index. Papers are published in the Czech and Slovak languages.

Ekonomicko-matematický obzor (Econometric Review) was founded in 1965, was published as a quarterly by the Institute of Economics of the Czechoslovak Academy of Sciences until 1991, and was monitored by Science Citation Index. In 1992, it merged with *Politická ekonomie*. It

focused on mathematical economics and operations research. Papers were published mostly in Czech and Slovak, but with the possibility to publish also in English, Russian, German, and French.

Acta Universitatis Carolinae, Oeconomica is published twice a year by Charles University in Prague. Papers are in Czech and English and focus on fundamental research in economics.

Acta Oeconomica Pragensia is published by the Prague School of Economics. Papers are in Czech and English and focus on general economics.

In 1992, shortly before the division of Czechoslovakia, a successful new project for a truly international journal was launched: the *Central European Journal of Operations Research*. Founded in 1992 under the title *Czechoslovak Journal for Operations Research* (its first editor was František Turnovec) as a professional journal of Czech and Slovak Operations Research Society, it was published by the Bratislava School of Economics; since 1994, as the *Central European Journal for Operations Research and Economics*, in cooperation by the Czech, Slovak, and Austrian Societies for Operations Research; and since 2000 quarterly by Physica-Verlag under the title *Central European Journal of Operations Research*. It is monitored by EconLit, JEL on CD, Mathematical Reviews Database, Social Science Research Network, Statistical Theory and Methods Abstracts, and International Abstracts in Operations Research. Papers are published exclusively in English.

Space for academic debate is provided by the Czech Economic Society (headed by Jan Frait from 2001 on), which organizes regular seminars and conferences (the first conference of the Czech Economic Society with international participation took place in 2000; the second is planned for 2002). Smaller specialized societies, like the Czech Society for Operations Research and the Czech Econometric Society, participate in international activities.

The data on the publication activities of the Czech economic community provided in Tables 1-5 illustrate the process of the internationalization of Czech economic research. We use the data from the database of the Government Committee for Research (GCR), whose ambition is to collect information about all publications by Czech researchers (not only economists). Under the classification used by the Committee, there are two branches of economic science: General Economics (GE) and Applied Statistics and Operations Research (ASOR). The data on journal publications, chapters in books, and book monographs in these two branches for the years 1993-2000 were retrieved from this database.¹⁸ Only papers in journals having ISSN registration and chapters in books and book monographs having ISBN registration were considered. All publications were subdivided by the publishers: of all publications, papers in journals listed in the *Journal of Economic Literature* (JEL) database and book chapters and book monographs followed by JEL and Social Sciences Citation Index (SSCI) were retrieved (classified publications). Within each group, an additional classification was the publisher's location: classified journals published in the Czech Republic and classified journals published in the West;¹⁹ classified books published by prestigious Czech academic publishers and books published by "Western" publishers.²⁰ Another classification used was the language of publication: publications in English, in other world languages, and in Czech and Slovak.

While the GCR database may be incomplete,²¹ using the time series provides some general characteristics of the development in the field.

In Tables 1, 2, and 3, we provide information (time series 1993-2000) on the types of publications (ISSN journals; ISBN chapters and monographs), separated by GE and ASOR. In Table 4 we summarize the results; in Table 5 we provide relative indicators. One can observe a general tendency to publish in English and not only a quantitative growth in the number of publications (culminating in 1998, reflecting the post-privatization debate), but also the growth of publications in non-Czech journals and publishing houses.²²

6. Views on further development

International support and cooperation contributed significantly to restructuring Czech economic research and education. The USAID agency (together with the University of Pittsburgh) helpfully supported the development of postgraduate education at CERGE at Charles University. There were two major vehicles of assistance within the Phare Programme of the Commission of the European Communities: Action for Cooperation in Economics (ACE) Programme and Tempus Programme. The ACE Programme in particular appeared to be a very efficient vehicle of establishing long-term international links in research activities and of promoting international academic standards.

Entering the 21st century, economic science and education in the Czech Republic have recovered from diseases of the totalitarian period and provincialism and are prepared to compete on the European academic market.

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- 1 Writing this paper, I benefited from the outstanding comprehensive study by Havel, Klacek, Kosta, and Šulc (1997), the guidebook on the history, problems, failures, and efforts of the Czech economic community during the difficult years of 1945-1990.
 - 2 By Czech economic thought, I mean the ideas of the people who declared themselves to be related to Czech society. Such outstanding personalities as Carl Menger (who studied several months in Prague), Friedrich von Wieser (who was a teacher at the German part of the Charles University in Prague), Eugen von Böhm-Bawerk (who was born in Brno), and Joseph Schumpeter (born in Moravia) had territorial relations to the Czech Lands (Bohemia and Moravia).
 - 3 In this part of the paper, I use the evaluation of František Vencovský, 1997.
 - 4 Apart from Chleborád, Kaizl, and Bráf, the partial approaches dealing with selected subjects of economic theory prevailed. This includes the critical analysis of Marxism in the work of Tomáš G. Masaryk (1850-1937), the first President of Czechoslovakia, *Sociální otázka* (The Social Question), 1898.
 - 5 Together with Ota Šik, Josef Goldmann was the most famous Czech economist abroad. During the Second World War, he worked with Michał Kalecki in London. Shortly after the war, he played a major role in designing the successful two-year plan of post-war reconstruction; he was arrested and sentenced in the 1950s and rehabilitated in the 1960s, and then he joined the Institute of Economics of the Academy of Sciences in Prague, where he educated a group of younger economists (Havel, 2002).
 - 6 Bedřich Korda, Jaroslav Habr, and Jaromír Walter are credited with introducing modern economic methodology of operations research and econometrics into Czech economic education and research in the second half of the 1950s.
 - 7 Published quarterly from 1965 until 1991, editors Jiří Bouška (1965-1970), Jaromír Vepřek (1971-1990), and Jiří Hlaváček (1990-1991).
 - 8 For an interesting piece of evidence about the “unofficial” segment of economic science and its interface with the “official” one, see (Šulc, 2000).
 - 9 It is interesting that, in the 1980s, some elements of the new thinking had support from Lubomír Štrougal, Prime Minister of Czechoslovakia from 1970 until 1988 and a member of the top Communist Party establishment.
 - 10 The most prominent economist from this group was Miroslav Toms (1944-1988), a gifted Marxist economist who was trying to bridge the gap between Marxism and modern economic theory.
 - 11 As far as I know, only one Czech economist residing and working in the Czech Republic published in a top international economic journal before 1990: Miroslav Maňas, in *Econometrica* (1972).
 - 12 Some monographs and textbooks by top Western economists were available even before 1989, e.g. the first Czech translation of Samuelson’s popular textbook was available as internal material of the Economic Institute of the Academy of Sciences at the end of the 1960s, the Czech translation of Arrow’s famous book *Social Choice and Individual Values* was published in 1971, translations of R. G. D. Allen’s books were published in the 1970s (Mathematical Economics in 1971 and Macroeconomic Theory in 1975), J. Robinson’s *Exercises in Economic Analysis* were published in 1975, and some of the basic (especially methodological) texts were available in Russian translation; but the systematic effort to remedy the deficit in world economic literature available in the Czech language started immediately at the beginning of the 1990s (a new translation of Paul Samuelson and William Nordhaus’ textbook, basic texts by Gary Becker, Milton Friedman, Friedrich von Hayek, János Kornai, John Rawls, Joseph Stiglitz, Hal Varian, and others).
 - 13 In 1989, only six faculties were accredited for economic education; in 2000, it was eighteen faculties at public universities and nine at private institutions of higher education (see tables).
 - 14 For more about this initiative, see (Darvas, 1997, and Turnovec, 1997).

- ¹⁵ About 30 students from almost all European Union member states come each year to spend one or two semesters at the Institute in the SOCRATES and ERASMUS programs.
- ¹⁶ At the end of the 1990s, there were three economic research institutes in the structure of the Academy of Sciences, the Institute of Economics (Ekonomický ústav), and the Institute of Forecasting (Prognostický ústav) in Prague, along with the Social-Economic Institute (Ústav sociálně-ekonomický) in Ústí nad Labem; in 1992, the Academy of Sciences decided to abolish these three institutes and establish instead one new Economics Institute (Národohospodářský ústav) in Prague. Other “non-academic” institutions of economic research also disappeared during the 1990s: the Central Institute of National Economic Research (Ústřední ústav národohospodářského výzkumu), the Research Institute of the Ministry of Finance (Výzkumný ústav financí), the Institute of Economic Policy (Institut hospodářské politiky) VŠE, the Institute of Economic Sciences (Institut ekonomických věd) at Charles University, and the Economic Institute (Institut ekonomie) of the Czech National Bank. The country had about one thousand economic researchers twelve years ago; now it has only several dozens (Havel, 2002).
- ¹⁷ An extensive discussion of the topic in Czech and world economic publications is greatly influenced by the personal role of the authors in the whole process and the necessary distance in time is lacking.
- ¹⁸ The GCR and the central database of publications were not introduced until 1993, after the division of Czechoslovakia and the establishment of the Czech Republic.
- ¹⁹ Three Czech economic journals are included in international databases: *Politická ekonomie* (Political Economy), *Finance a úvěr* (Finance and Credit), and *Prague Economic Papers*. By “West”, we mean EU countries, the USA, and Japan.
- ²⁰ Only two Czech classified publishers were considered: The Academia Press, the publishing house of the Academy of Sciences of the Czech Republic; and The Karolinum Press, the publishing house of the Charles University in Prague.
- ²¹ The system of updating the database is not perfect, the motivation for researchers to keep their records complete is weak, and some publications related to quantitative economics might be included under mathematical branches of the database; there is also some time lag in recording new publications.
- ²² The papers of Czech economists appeared in top international journals, such as *American Economic Review*, *European Economic Review*, *Journal of Mathematical Economics*, *European Journal of Political Economy*, *Economics of Transition*, *Journal of Comparative Economics*, *European Journal of Finance*, *European Journal of Operational Research*, *Applied Financial Economics*, *Journal of European Integration*, *Central European Journal for Operations Research*, etc.

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Table 1 Publications: Papers in ISSN Journals

General Economics	1993	1994	1995	1996	1997	1998	1999	2000
Total	98	193	248	334	600	915	459	450
CZ Politická ekonomie	7	23	30	14	25	38	23	23
CZ – Prague Economic Papers	-	2	8	4	11	14	11	4
CZ – Finance a Uver	10	19	22	12	14	23	13	11
Western journals	5	1	1	-	1	17	25	15
Published in English	2	18	28	49	170	88	86	37
Published in other foreign languages	3	-	2	2	2	23	1	8
Applied Statistics and Operations Research								
Chapters in books, whole database	1993	1994	1995	1996	1997	1998	1999	2000
Total	21	41	43	75	73	180	135	67
CZ Politická ekonomie	1	6	1	3	-	6	6	4
Prague Economic Papers	1	-	-	3	-	-	1	1
Finance a Uver	3	-	2	-	-	2	-	-
Western journals	2	1	-	-	3	36	42	6
Published in English	3	11	23	26	39	98	93	36
Published in other foreign languages	-	-	-	-	3	1	-	1

Table 4 Publications: Summary of Absolute Indicators

	93	94	95	96	97	98	99	00	total	% of total
Papers in ISSN journals	119	234	291	409	673	1095	594	517	3932	100
Including										
JEL database journals	29	52	63	36	54	136	121	60	551	14.01
Non-Czech JEL journals	7	2	1	0	4	53	67	21	155	3.94
In English	5	29	51	75	209	186	179	73	807	20.52
Chapters in books				6	16	40	112	166	340	100
Including										
JEL database publishers						18	13	10	41	12.06
Non-Czech JEL Publishers						14	13	10	37	10.88
In English				4		31	18	35	88	25.88
Book monographs	15	45	29	51	122	103	49	75	489	100
Including										
JEL database publishers	4	2	4	3	10	6	4	1	34	6.95
Non-Czech JEL publishers	4	2	4	3	1	5	4		23	4.70
Published in English		3	5	2	17	12	6	2	47	9.61

Table 5 Publications: Summary of Relative Indicators

	93	94	95	96	97	98	99	00	total
All publications	134	279	320	466	811	1238	755	758	4761
Including									
Classified publications	33	54	67	39	64	160	138	71	626
Non-Czech publishers	11	4	5	3	5	72	84	31	215
In English	5	32	56	81	226	229	203	110	942
% of classified publications	24.63	19.35	20.94	8.37	7.89	12.92	18.28	9.37	13.15
Including									
% of non-Czech publishers	8.21	1.43	1.56	0.64	0.62	5.82	11.13	4.09	4.52
% of publications in English	3.73	11.47	17.50	17.38	27.87	18.50	26.89	14.51	19.79
Yearly performance,% of the total 93-00	2.81	5.86	6.72	9.79	17.03	26.00	15.86	15.92	100