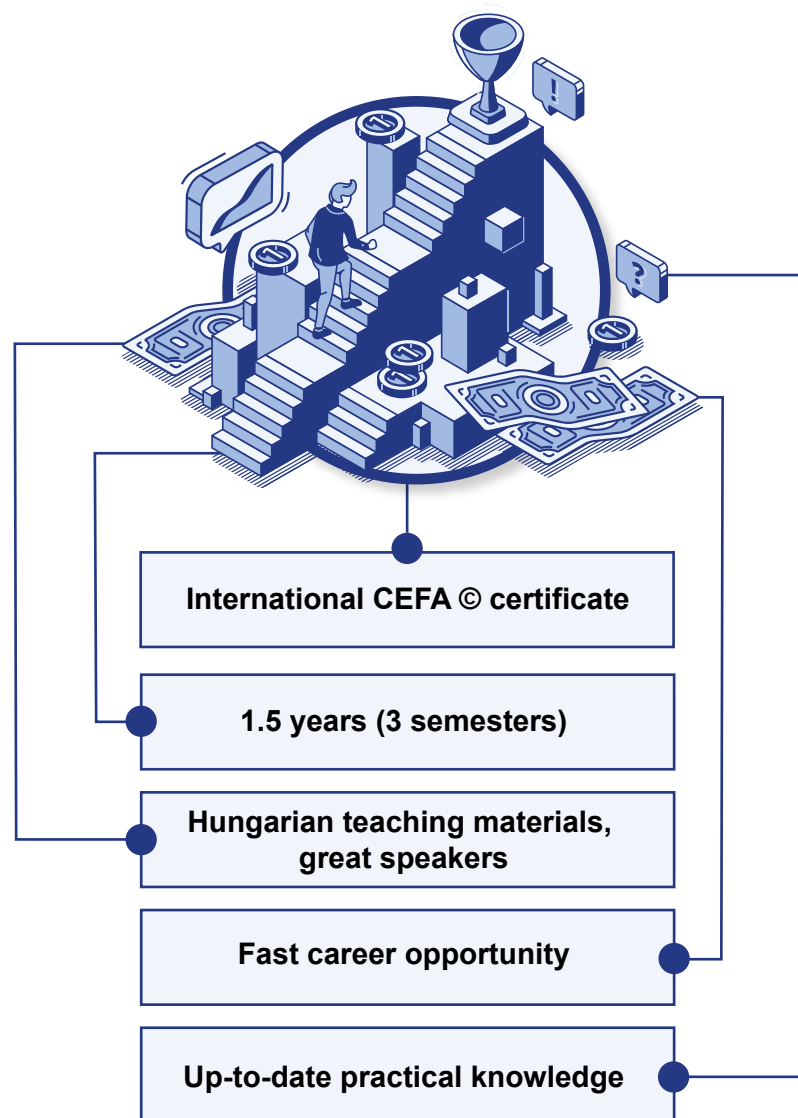


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ECONOMY & FINANCE

ENGLISH-LANGUAGE EDITION OF GAZDASÁG ÉS PÉNZÜGY

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Photo: HVG

Werner Riecke

(1953–2021)

FROM 'RAJK' COLLEGE TO THE TEAM OF THE 'FIFTEEN' - WERNER RIECKE'S (1953-2021) PROFESSIONAL CAREER

My memories

Júlia Király¹

Werner Riecke and *István Ábel* were already legendary when we entered the 'Rajk' College although they were only two years our seniors. Still, they had already had so many Student Competition (TDK) papers and awards to their names that most new entrants enrolled in their internal seminar '*Modelling economic growth*'. The memories of *István Ábel* recall those Sciences Club years.

I got closer to Werner after graduation, when *Attila Chikán* set up the International Society for Inventory Research and organised its first global conference where the guest of honour (and honorary president) was no less than Nobel laureate *Kenneth Arrow*. Well, Werner did not only give a talk at the conference, but he was also the Hungarian-German-English interpreter appointed by *Attila*. It was no problem for him. German was his native language; he spoke Hungarian with a recognisable but sweet accent while his English was near mother-tongue level. However, he could not familiarise with Russian till the end of his life. So, I had a place beside him as a non-official English-Russian-Hungarian interpreter. And, naturally, both of us also functioned as waiters at the usual conference outing at the restaurant 'Görög Kancsó' at Szentendre. Werner is a versatile person, we all said.

From then on, our paths often crossed. Although we did not work together, we had long debates on different occasions going on late into the evening, and we also sailed together on long, windless days.

Werner had just left the legendary *Szokolczai lab* (more precisely, the Department of Econometrics of the Telecommunications Industry Research Institute) when I was accepted there on a student internship. There are few of our peers later evolving into economic modellers, who had not studied at the Econometric Lab. *László Hunyadi, Álmos Kovács, László Lovrics, Judit Neményi, Katalin Marjanek, Gábor Bagdy, Sári Losonczi...* the list could go on. Building quarterly forecast models applying the IT and econometric methodology of the time required audacity, but one could learn much from it.

¹ *Júlia Király* university professor, economist. E-mail: jkiraly@ibs.b.hu.

Following a short stay at the National Price Office, which Werner did not like (to say the least), *György Surányi* invited Werner to join the Financial Research Institute in 1982. Instead of real growth and asset management, he started to delve into the operation of small, open economies, the monetary approach to the balance of payments, exchange rate and payment balance theories. That was the background to a legendary work you can only find in second-hand bookshops today, *Exchange Rate Theories and Financial Policy* by *Riecke–Szalkai–Száz* that *János Száz*, among others, remembers in this issue. *Lajos Bokros* recalls the years at the Institute. The friendship of Werner and *László Antal* lasting until the latter's death originated in that period. Two dedicated reformers were solving different models amid the dense cigarette smoke of pubs as they were trying to better a 'socialist' economy grinding to a halt or stumbling over around them.

In 1987, when pressurised by the party, *Péter Medgyessy* had the Financial Research Institute closed following the publication of the revolutionary *Turnaround and Reform*², Werner was already working for the Ministry of Finance, the witches' brewery of budget and tax reforms headed by *Mihály Kupa*. Laws on personal income tax and VAT took effect in 1988 as the result of intensive efforts over the previous three years. Werner played an active part in their preparation. *Csaba László* recall that period of frenzy and turbulence after the reform but before the time of political transition.

In 1988/89, immediately before the fall of Communism, Werner was senior counsellor at the Economic Policy Secretariat selected from among the best economists of the era. *Tamás Tétényi* is commemorating that year side by side with *György Surányi* et al.

In 1990, *György Surányi* again invited Werner, this time, to join the National Bank. A fifteen-year-long work started then, which may have been the most decisive period in Werner's professional career. He was promoted from head of department in charge of monetary instruments, monetary programming to Deputy Governor of the National Bank, a decisive actor in the Monetary Council making the decisions of the National Bank. *Judit Neményi*, *Gábor Oblath* and *Péter Bihari* are writing about the period linking it to other phases of his professional career.

Following his career at the National Bank, he worked as advisor to international organisations (UN, IMF) at a thousand locations of the world from Bishkek to Doha. He once said jokingly, wherever he goes to give advice, guns will take over eventually. Still, even among the fire of guns, he had the patience and perseverance to build sovereign debt markets, give advice on monetary policy, observe,

2 ANTAL, LÁSZLÓ et al. (1986): *Fordulat és Reform* [Turnaround and Reform]. Budapest: self-publishing.

and help countries that were even more backward or at a disadvantage than Hungary. János Száz wrote about those years in his memories.

It was a shame he was called upon less and less in this country. Those in power tend to forget advisors who have a treasure trove of knowledge, but they are not always pliable. When on initiative by *Tamás Mellár* the team of the 'fifteen' was set up in 2020 to analyse the response given to the pandemic by the government, we were happy to rediscover Werner's unbroken efficiency and willingness to argue. Unfortunately, he could only join us for a brief time. Illness was stronger than him.

All who worked with Werner at any time will remember him as a friend. Professional debates were also friendly discussions for him; his informal manner could win over people who supported the opposing view.

He was someone special. We shall miss him.

TRANSITION TO MARKET ECONOMY AND MODERN MONETARY POLICY

Werner Riecke's life and achievements in Hungarian economic policy

István Ábel¹

1 ON COURAGE AND FRIENDSHIP

Werner Riecke was born in the German Democratic Republic (NDK), attended high school in Erfurt, and then studied at the University of Economics Marx Károly, Budapest on a student grant. He had been living in Hungary since 1972. He belonged here. He was a member of the College of Advanced Studies 'Rajk' (Rajk College) during his years at the university from 1974 to 1978. We were roommates at our dormitory and teammates at the university. Lifelong friendships are made that way. We both obtained our degrees in mathematical economics specialization. At the university we could enrol in important maths courses in addition to linear programming and optimisation – regarded to be maths subjects for the planned economy –, but we had to learn modern economic theory, macroeconomics and its financial and economic policy implications individually at the courses organised at the Rajk College. As an important part of individual work, we had to submit papers reviewing one or another sub-area to our Student Academic Competition. That kind of work prepared us for the publication of professional articles in prestigious journals as graduate students or as trainees at our workplaces. We continued to work together on joint publications after graduation on topics related to our work at Rajk either side by side with workplace assignments or independent of them (Ábel–Riecke, 1980).

Attila Chikán who launched the extraordinarily successful *International Society for Inventory Research* at that time was a great help. We produced studies on the behaviour of macro-inventories for the conferences of the Society (Chikán–Ábel–Riecke, 1980; Ábel–Riecke, 1981). Corporate inventory management was an internationally known research topic, but few people dealt with the evolution of macro (national economy) inventories. The topic gained particular importance in our country for two specific reasons. One was the peculiar behaviour of corporate inventories because of our shortage economy (hoarding of input stock and low inventory level of finished products), which resulted in higher macro-level in-

1 István Ábel, professor, Budapest Business School. E-mail: Abel.Istvan@uni-bge.hu.

ventories than was customary in market economies. The reason was that stocks did not accumulate with a dwindling number of producers manufacturing goods but with a high number of users of those products that were trying to accumulate input stocks so that they could produce uninterrupted despite shortages. The other reason the topic was in the centre of attention in this country was that the financial position of companies limited their efforts to hoard input stocks. It was an excellent occasion to apply our interest in macro-finance through the connections of macro-finance and inventory financing.

In the 1980s Werner was engaged in macroanalysis and related computer (*main-frame*) programming working for different companies. He worked for the Econometrics Laboratory headed by *György Szakolczai* (INFELOR-Számki²), the IT centre of the Planning Office and for the National Office for Materials and Prices. Many people thought it was not a suitable workplace for Werner. However, one of the deputy chairpersons of the Office was *Márta Nagy*, who followed Werner's macro-inventory modelling research with interest. She knew the area well and such research played an important part in the modernisation of the Office she had implemented. Werner's knowledge and enthusiasm was acknowledged in those jobs, and he could feel to be useful. He worked on critical issues, but his working hours were fixed, and he had to be present at this workplace every day. So, he did not enjoy the freedom a researcher could have. Since his wife worked in Székesfehérvár and the couple lived with her parents, Werner travelled to Budapest every day by train. It was a reasonable solution at the time since a beginner's salary would not be sufficient to rent a flat while workplaces reimbursed travel expenses.

He got a job at the Financial Research Institute of the Ministry of Finance in 1982, which brought about major changes in his life. At the time the Institute was headed by *István Hagelmayer*, who had established one of the best workshops in the country in terms of reform activities preparing the age of transition. Werner's main field of research there was inflation and exchange rate theory. He worked with *István Szalkai* and *János Száz* (Riecke–Szalkai–Száz, 1981; 1985). *György Surányi*, the future Governor of the Central Bank³ was a senior colleague too. *Mihály Kupa*, the future minister of finance was a deputy and later the head of the Institute. Werner Riecke worked next to Mihály Kupa between 1987 and 1989 participating in the efforts to set up a modern tax system including both personal income tax and VAT. Still, the fantastic opportunity for him came in 1990, when

2 INFELOR was a special place. Werner could work with excellent colleagues, who took central positions later, such as *Álmos Kovács*, *Judit Neményi*, *Ferenc Rabár* or *János Stahl*.

3 The Governors of the Bank were *Ferenc Barta* from 15 June 1998 to 30 June 1990; *György Surányi* from 1 July 1990 to 30 November 1991 and again from 1 March 1995 to 1 March 2001; and *Ákos Péter Bod* from 9 December 1991 to 14 December 1994.

György Surányi, Governor of the Central Bank offered him a position at the National Bank of Hungary.

Zoltán Farkas has given a good description of Werner's working style in his memoir. "He did not make extreme statements, but he used appropriate sometimes sarcastic remarks to characterise a situation. His knowledge was respected, his style was loved. He was one of the little known highly educated financiers who had done so much for the country in different eras and positions" (Farkas, 2021). Zoltán Farkas quoted Mihály Kupa's response to the news of Werner's death, "He was a fine guy and a still young warrior." The remark may refer to the fact that Werner had always stood firmly by established truth, which in those time often deviated from the "official" view. That was what he represented standing by it humbly but firmly even if this often put him at a disadvantage.

2 INDEPENDENT MONETARY POLICY AND THE INDEPENDENT CENTRAL BANK

Employed by MNB, Werner Riecke played an important part in transforming the framework of monetary policy from 1990 to 2004. He started as an advisor to Governor György Surányi, and he became head of the Department of Financial Policy. He closely monitored the everyday work of the department and took an active part in it even after 1995 when he became managing director and Deputy Governor in 1998. The 1990s had been the period of establishment of the modern Hungarian Central Bank. Studying the activities of the main actors of the age and the transformation of the banking system, *Juliet Johnson* has found the international cooperation of central bankers and the assistance by international financial organisations contributed to the success of the transformation of the banking systems in Central and Eastern Europe. She described the community of central bankers as missionaries (Johnson, 2016), made successful by their influence based on their persuasive ability (*Piroska*, 2017:448).

Uniform professional culture was prevalent with respect to the theoretical framework guiding the everyday operations of central banks (*Piper*, 1994; *Riecke–Antal*, 1993). Werner Riecke and György Surányi had become well-known actors of the international cooperation of central banks, which provided a solid background for the application of up-to-date knowledge in this country (Johnson, 2016:3).

Werner Riecke worked for the National Bank of Hungary for almost fifteen years in the period when it was transformed into a modern central bank. Before going into details about the main components of his contribution, let me give you an overview of the legal and institutional environment prevalent at the time.

Central bank activities were shaped by two main principles in the 1990s. One was price stability and the other the independence of the central bank. Thus, the main goal of the central bank was to maintain price stability. It was allowed to use any instrument it had found appropriate and could neglect the disturbing impact of any political objective or influence. Using a phrase by *Borio* (2011), central banks were guided by a kind of “narrowly interpreted role of a central bank” not only in the 1990s but also later beginning from 2007 when the global fiscal crisis broke out. Views related to the self-regulatory ability of market economies identified the framework of the tasks and approaches required to maintain price stability. Guaranteeing the independence of central banks was important there since a central bank could not have committed itself to maintain price stability unless all potential political influence was excluded. Independence practically meant two crucial elements. First, shaping monetary policy was regarded to be a professional issue, and then its institutional regulatory guarantees had to be created. The evolution of the law on the central bank from 1990 to 2000 is the story of how the above principle was implemented in practice in Hungary.

The independence of the central bank is a concept describing its relationship to the government relying on many factors (*Siklos*, 1994). One of its indicators can be identified using a method described by *Cukierman* (1992), which focuses on the characteristic features of its legal status. Using that indicator, *Karádi* (1999) identified three stages for the National Bank of Hungary. The first was the stage prior to 1991, when the central bank had not been independent in this country. It worked subordinated to the government, it had full commercial banking competence and fulfilled the tasks of a commercial bank in addition to its central banking functions. That was the mode of operation for a single-tier banking system.

The second stage was between 1991 and 1995, when the law on the central bank adopted in 1991 identified where and what part monetary control was to play within the framework of the market economy. Accordingly, the Governor of the central bank was accountable to the Parliament, and it was no longer identified as an organisation subordinated to the government. Thus, its independence was legally guaranteed, still it remained quite limited. The law on the one hand created the central bank as an independent entity outside the governmental structure of state administration, but on the other hand it stipulated, “MNB supports the implementation of the Government’s economic policy programme with the available monetary policy (monetary and credit policy) instruments.” (Act LX of 1991 on the National Bank of Hungary).

Measures introduced to achieve and maintain external equilibria were given emphasis in monetary policy (*Beaumont*, 1999a, 1999b; *Surányi–Vincze*, 1998). As they were introduced for “the protection of the internal and foreign purchasing

power of the national currency,” one can say it was an implicit requirement aimed to achieve price stability or at least to keep the rate of inflation as low as possible. At the same time, the wide range of how the Act could be interpreted identified instruments MNB could use beginning from 1991 to successfully implement any type of monetary policy and the relevant set of targets.

The introduction of a preannounced crawling peg exchange rate system in March 1995 represented the start of the third stage according to the indicators identifying the independence of the National Bank of Hungary (*Kopits, 1995; Jakab–Szapáry, 1998; Szapáry–Jakab, 1998*). It, however, had not been coordinated with the legal changes introduced. An amendment of the Act adopted in 1994⁴ provided a list of commercial banking activities MNB could be engaged in and clarified its tasks related to the central budget. Getting rid of the functions of a commercial bank liberated MNB from obligations that had been disturbing in terms of freedom of monetary policy and independence.

Narrow-band preannounced crawling peg exchange rate devaluation was implemented as part of a wider package of measures of economic stability jointly with other tax and duty measures. In terms of impact, all of that represented a more rigorous fiscal restraint.⁵

MNB published its first analysis “Report on the evolution of inflation” in November 1998 both in English and Hungarian (MNB, 1998). The report was published regularly. Such a document is a basic analytical tool of inflation targeting systems, and it is given special attention in all such systems.

The early publication of the inflation report in 1998 indicated the analytical work as a basic requirement of modern central banking activities had already been solidified in MNB. The practice of the regular publication of the report is, however, surprising.

Inflation reports play a special role in inflation targeting frameworks, but the Hungarian monetary policy framework at that time was not like that. Intentions to curb inflation by the Central Bank could be recognised in the Hungarian system but implementing fully fledged inflation targeting was in conflict with the elements of exchange rate targeting even in 2001, when officially inflation targeting was introduced in Hungary (*Siklós–Ábel, 2001*).

4 Act IV of 1994 amended Act LX of 1991 on the National Bank of Hungary and certain rules of the management of the central budget.

5 According to Article 13, Act of 2001 on the Central Bank, the Government establishes the procedure of identifying and influencing exchange rate in agreement with MNB. The right of agreement could be interpreted for the main framework in the crawling peg exchange rate system, but not for the decisions of MNB.

Analysing the 1990s by applying Cukierman's (1992) methodology to measure the legal independence of the Central Bank, Karádi (1999) found that MNB came close to the index expressing the independence of the Bundesbank following the 1996 law amendment (third stage). The maximum value of the index is 1, it was 0.67 for the Bundesbank, and 0.24 in 1979, 0.45 in 1991 and 0.63 in 1996 for MNB (Karádi, 1999:991).

Side by side with institutional and legal (*political*) interpretations, *instrumental* independence for the application of Central Bank instruments is worth considering for assessing its real independence. Analysing the figures from the period 1988 to 1993, Ábel-Siklos-Székely (1998) found that although the legal environment of MNB had failed to clearly declare its independence, econometric indicators of the reaction functions of the Central Bank assessing the interest rate decisions support that MNB was quite independent of political influence.

3 EVOLUTION OF THE INSTRUMENTS OF A MODERN CENTRAL BANK

A modern structure and instruments of a modern Central Bank were established in the decade from 1990 to 2000, but it had to be preceded by a reform of the banking system. As of 1 January 1987, commercial banks had been separated from the Central Bank.⁶ They conducted commercial lending while the Central Bank dealt with the establishment and implementation of monetary policy (money, credit, and foreign currency policies). In that way the National Bank of Hungary has lost its direct connection with the economic sphere and had become a Central Bank, the bank of banks and of the state. Thus, a two-tier banking system characteristic of the industrialised countries had been established in Hungary. There remained, however, a major setback. A proper recapitalisation of commercial banks required for supporting their functions had not taken place, and it became evident after the transition that the stability of the banking system could not be maintained without strong government intervention. The loan, bank and debtor consolidation conducted between 1991 and 1994 prior to bank privatisation cost public money creating a huge hole in the budget (*Langmár-Papp, 1996*).

MNB retained its monopoly over foreign currency deals following the banking reform, so it remained the central entity dealing with foreign loans and foreign

6 ÁBEL-SZAKADÁT (1997) discusses the characteristic features of banking performance and the steps prior to bank privatisation.

exchange operations. It continued to appear on international money and capital markets in the same way as the commercial banks.

During the banking reform, the commercial banks set up from the industrial and lending units of MNB were established in the form of joint stock companies and were authorised to engage in commercial banking activities (account management, collecting deposits and granting loans).

In the 1990s commercial banks operated independently of the Central Bank and provided lending to businesses and the population. During the decade, the Central Bank regulated the activities of financial institutions by managing the policy rate, the requirement of mandatory reserves for commercial banks, refinancing, and open market operations (buying and selling securities). Regulations could change from one year to the next, often representing administrative interventions in these areas. However, the direction of development was clear. By its regulations, the Central Bank was targeting normativity (rules based on the regulations rather than subject to individual assessment). (Balogh, 2009; MNB, 2001; Riecke, 1993; Surányi, 2001; Szalkai, 1995; and *Wagner*, 1998).

Cleansing its profile allowed to reduce staff from 2,700 typical in the first half of the 1990s to 1,300 by 2000. A significant turnover of employees had an even greater impact than staff reduction. Few of the “old guard” remained with the Bank. Some of them found new challenges and tempting opportunities at the new commercial banks. Also, up-to-date skills were required to perform the analyses necessary for new modern commercial banking functions, which was ensured by young new entrants. The Central Bank offered them attractive professional courses abroad and, in this country, to improve their skills.

Over five years passed from direct refinancing of the commercial banks by the Central Bank until a modern set of tools were born (1989-1995), even though MNB outpaced its counterparts in Central and Eastern Europe. It was racing ahead – using Johnson’s wording [op. cit., 2016:136].

4 TRANSFORMATION OF LIQUIDITY REGULATIONS AND INSTRUMENTS IN THE 1990s

In 1991 MNB replaced negotiations on the distribution of refinancing loans with auctions. That step involved a move from direct methods to indirect solutions. A chronological review of the steps taken by the Central Bank offers a convincing description of the process I will describe here following *Romhányi* (1999).

In preparation to the establishment of an interbank foreign exchange market, MNB introduced *a new procedure of exchange rate quotations* as of 9 December

1991, while the *currency basket* of HUF also changed. The interbank *foreign exchange market* started operations on 1 July 1992.

Retaining excess liquidity in the banking system promoted interest rate reduction beginning from 1992. Following the stabilisation of macroeconomic balance, MNB set the reduction of interest rates as its interim target in 1993 (*Hitelpolitikai irányelvek* [Credit Policy Guidelines], 1993; *Ursprung*, 1996:37). Monetary policy instruments included *refinancing*, *reserve policy*, *interest rate policy* and *open market operations* (Antal et al., 2001; Árvai, 1995). They were given different weight later, but a transition from direct methods (refinancing) to indirect ones (interest rate policy) was clear.

In 1993–94 the interim goal was to *maintain the level of real exchange rate*. Money market operations became dominant from 1993, which reflected the increase of their role. Banks received supplementary liquidity from MNB through *repo transactions backed by securities*.

Beginning from 1 January 1993, banks had to meet mandatory reserves with MNB at two-weekly averages rather than daily, which helped more flexible liquidity management.

Active and passive repo appeared on 8 January 1993 as a new instrument of liquidity management. Werner Riecke later remembered that crucial step with contentment. With that, the Central Bank allowed commercial banks to decide on liquidity management, i.e., refinancing had become “normative” for them based on regulations, on the other hand, it also had become of short maturity. Initially the commitment of the Central Bank offered liquidity support at diverse types of maturity from two weeks to a year. With time, commitment was reduced to two weeks both on the passive and active sides. Two considerations were in the background for that. If a central bank quotes interest rate for different maturities, there is a threat that the quotes will not be fully compatible with the interest rate quotes on the interbank and short-term treasury bill markets. The Central Bank could also assist financing the state budget by liquidity measures opening the so termed “repo-tap”. Opening the “repo-tap” meant the Central Bank provided funding to buy government securities via the repo. It took place subject to the following conditions. The time of a repo-auction had to be on the same day as the government securities auction or on the day preceding it. Repo expiration was identical to the maturity of government securities involved. Repo cost banks less than the profit earned on government securities. In addition, the switch to two-week maturity was also justified by the consideration that a Central Bank had stronger impact on interest rates at the shorter end of the money market.

MNB changed the terms of the repo scheme several times. Finally, it terminated passive repos for all maturities beginning from 6 October 1997 and introduced

Central Bank deposits instead of passive repos with the same terms and conditions. The reason for the change was that the Central Bank as a safe borrower did not need to give bonds to commercial banks to accept excess liquidity from them. The scheme of Central Bank deposits remedied the problem related to the renewal risk of passive repo, i.e., that its interest rate was too unstable in volatile periods. Acceptance of Central Bank deposits was fully suitable to absorb excess liquidity. It made life easier for the Central Bank, particularly because the portfolio of government bonds it held was reduced because of their sale to absorb excess liquidity from the banks. Foreign capital flowing into the country, foreign currency revenues from privatisation and partial financing of the state deficit from foreign currency debt meant that incoming foreign currency was converted to HUF, which also contributed to the increase of excess liquidity in the banking system. The net liquidity position of the Central Bank was continually positive beginning from the middle of 1995 to the end of the decade or even longer, which reflected that the Central Bank absorbed excess liquidity by accepting deposits or selling Central Bank bonds to banks.

Central Bank deposits were the most important instrument of MNB to absorb excess liquidity from 6 October 1997 till 2006. Commercial banks had different maturity options to place deposits with the Central Bank, but the overnight deposit was the most important instrument for liquidity management. Its interest rate regulated interbank rates at the lower edge of the interest rate corridor.

The availability of the Central Bank on the overnight market both on the deposit and refinancing sides was an organic part of the system. So, active repo and the interest on overnight deposits represented the two edges of the interest rate corridor.

MNB had been using longer-term deposits to influence longer yields until 1997, however, MNB bonds were introduced to replace them from the middle of the year. It had an advantage. MNB could influence longer yields with their help while bond schemes were more attractive for commercial banks than deposits as they could use them in repo transactions on the interbank market to ensure liquidity.

To sum up, the units controlled by Werner Riecke significantly modernised the instruments of the Central Bank for liquidity regulation in the decade beginning in 1990. Refinancing credits and provision of sources to commercial banks in the 1980s meant that the Central Bank intervened using its assets, granting credits rather than accepting deposits. This is called regulation by the active side and the practice was typical in most market economies. In Hungary, the inflow of capital resulted in a major surplus of liquidity in the economy the Central Bank left in the banking sector to ensure its funding. Although it absorbed excess liquidity from time to time, it made up for it if there was a shortage. It means the Bank intervened on either the active or the passive side in response to market needs.

Following the 1995 stabilisation, however, capital inflow generated by privatisation and other business investments resulted in long-term excess liquidity that the Central Bank intended to absorb. From then on, the Bank continually applied passive-side instruments for that purpose. The selection of instruments of liquidity management was adjusted to the needs of the banks. In other words, excess liquidity was absorbed by the Central Bank in the form of deposit acceptance or bond sales, while liquidity tensions could be mitigated by other instruments provided by the Central Bank. A significant difference from the perspective of the Central Bank was that it earned interest income on active-side instruments while it had to pay interest on the passive side.

Tenders were used to distribute active and passive repo instruments introduced in 1993 to provide commercial banks with liquidity, so the interest rate generated on tenders reflected the situation of the money market, and it reflected the market rate. The Central Bank used that market rate for its liquidity absorbing operations. It was trying to influence market rate trends mostly via influencing short-term rates.

The fixed but adjustable exchange rate regime which was used before 1995 in Hungary had two basic disadvantages. On the one hand, because of the uncertainties of adjustments and the peculiarities rooted in the decision-making process of the two decision makers (MNB and the Ministry of Finance representing the Government), the regime provided little indication regarding the future trends of exchange rates, so it could not anchor inflationary expectations. On the other hand, the schedule of adjustments could be anticipated sufficiently to entertain low-risk speculation transactions on devaluation. They included simple transactions of retaining export revenues or advance payment on import duties to derivative transactions, since forward, swap and futures transactions were already available on the Hungarian money and foreign currency market. Short-term maturity FX swaps have been among the instruments of the Central Bank since 1993. They had the same function as repo transactions, even their conditions matched those of repo transactions (*Bozó, 2000:86*).

To implement transition smoothly, economic policy had to keep close control over exchange rates. There were many arguments for it. Curbing inflation and maintaining the competitiveness of exports were equally important, however their aspects in terms of currency rates were the opposite. There had been a fixed exchange rate system in the first half of the 1990's, but the introduction of the narrow band crawling peg from 1995 represented a step forward to a broader band and then later to freely floating exchange rate regime.

Monetary policy had to face a peculiar challenge in that framework. While instruments used by modern central banks had been established during the decade, their application remained constrained by exchange rate considerations. Only

two out of the three requirements of an autonomous monetary policy (free flow of capital, free floating exchange rates and focus on inflation) could be achieved simultaneously.

Monetary policy instruments did include classical interest rate policy measures too, but exchange rate management was the crucial factor in reducing inflation.

The main challenge to monetary policy given its set of policy instruments and to ensure the inflow of capital due to economic policy considerations was presented by the sterilisation necessitated by excess liquidity generated by capital inflows. The necessity to absorb excess liquidity revealed the disadvantages of the scheme of the crawling peg exchange rate system and its increasing costs to the central bank to maintain it.

5 CLOSING REMARKS

I have only overviewed a small part of Werner's professional career in this paper. It does not cover other important activities, his research in other fields or his activities as an international advisor. He had a rich and versatile social and personal life too. He sometimes talked about his experiences in sailing or other events, but I only watched those from afar. Having known him up close, I can say his life was not easy, but he lived a full life despite his early death. He accepted difficulties in his stride and looked at happiness as a gift.

Werner Riecke passed away on 21 July 2021, not long after his 68th birthday on 8 June. It was not customary among us to celebrate birthdays together, so I did not see him on the last one, although we met quite often. I am sorry for that now. We shall miss him. To honour his memory, we must continue what he might have expected us to do if we can. Let us go forward and try to achieve what he would have thought important too.

REFERENCES

- ANTAL, JUDIT – BARABÁS, GYULA – CZETI, TAMÁS – MAJOR, KLÁRA (2001): Likviditásszabályozás az MNB cél- és eszközrendszerében [Liquidity control in MNB goals and instruments]. MNB Műhelytanulmányok, 22. <https://www.mnb.hu/letoltes/mt22.pdf>.
- ÁBEL, ISTVÁN – RIECKE, WERNER (1980): Árfolyam, nyereségérdekeltség és külkereskedelmi hatékonyság [Exchange rates, profit orientation and foreign trade effectiveness]. *Közgazdasági Szemle*, 27(2), 142–155.
- ÁBEL, ISTVÁN – RIECKE, WERNER (1981): A Model of Aggregate Inventory Behavior in the Hungarian Economy. In: CHIKÁN, A. (ed.) (1981): *The Economics and Management of Inventories*. Amsterdam: Elsevier Science Publishers, Akadémiai Kiadó, 13–28.
- ÁBEL, ISTVÁN – SIKLOS, PIERRE L. – SZÉKELY P., ISTVÁN (1998): Central Bank Independence in the Early Stages of the Transition. In: ÁBEL, I. – SIKLOS, P. – SZÉKELY, P. I. (1998): *Money and Finance in the Transition to a Market Economy*. MA, USA: Edward Elgar, Northampton, 145–172.
- ÁBEL, ISTVÁN – SIKLOS, PIERRE L. – SZÉKELY P., ISTVÁN (1998): *Money and Finance in the Transition to a Market Economy*. MA, Northampton (USA): Edward Elgar, 145–172.
- ÁBEL, ISTVÁN – SZAKADÁT, LÁSZLÓ (1997): A bankrendszer átalakulása Magyarországon 1987–1996 között [Transformation of the banking system in Hungary 1987–1996]. *Közgazdasági Szemle*, XLIV (7–8), 635–652.
- ÁRVAI ZSÓFIA (1995): A kötelező tartalékráta szabályozásának átalakulása [Evolution of regulating mandatory rates of reserve]. *Közgazdasági Szemle*, 42(2), 201–204.
- BALOGH, CSABA (2009): Az MNB monetáris politikai eszköztára [Monetary policy instruments of MNB]. Manuscript, MNB.
- BEAUMONT, CRAIG (1999a): Monetary Policy Framework for Disinflation and EU Convergences. IMF Selected Issues, 44–67. <https://www.imf.org/external/pubs/ft/scr/1999/cr9927.pdf>.
- BEAUMONT, CRAIG (1999b): Sustainability in the Hungarian Balance of Payment. IMF Selected Issues, 136–164. <https://www.imf.org/external/pubs/ft/scr/1999/cr9927.pdf>.
- BONIN, JOHN – SZÉKELY, ISTVÁN P. (eds.) (1994): *The Development and Reform of Financial Systems in Central and Eastern Europe*. Brookfield, VT: Edward Elgar.
- CHIKÁN, A. (ed.) (1981): *The Economics and Management of Inventories*. Amsterdam: Elsevier Science Publishers, Akadémiai Kiadó.
- CHIKÁN, A. – ÁBEL, I. – RIECKE, W. (1980): An Econometric Analysis of Aggregate Inventory Behavior in the Hungarian Economy. Előadás az V. Nemzetközi Előrejelzési Konferencián [Talk given at 5th international forecast conference] (Esztergom).
- COTTARELLI, C. – SZAPÁRY, GY. (eds.) (1988): *Mérsékelt infláció. Az átalakuló gazdaságok tapasztalatai* [Moderate inflation, Experience of economies in transition]. Budapest: Magyar Nemzeti Bank [MNB].
- CUKIERMAN, A. (1992): *Central Bank Strategy, Credibility and Independence*. Cambridge (MA): MIT Press.
- FARKAS, ZOLTÁN (2021): Elhunyt Riecke Werner, a Magyar Nemzeti Bank korábbi alelnöke [Werner Riecke former deputy governor of MNB passed away]. *Gazdaság: Elhunyt Riecke Werner, a Magyar Nemzeti Bank korábbi alelnöke* | hvg.hu.
- JAKAB, ZOLTÁN – SZAPÁRY, GYÖRGY (1998): A csúszó leértékelés tapasztalatai Magyarországon [Crawling peg devaluation in Hungary]. MNB Füzetek, 6. https://www.mnb.hu/archivum/Kiadvanyok/mnbhu_mnbfuzetek/mnbhu_MF1998_6.
- JOHNSON, JULIET (2016): *Priests of prosperity. How Central Bankers Transformed the postcommunist World*. Ithaca, N. Y.: Cornell University Press.

- KARÁDI, PÉTER (1999): Jegybankfüggetlenség Magyarországon [Independence of the central bank in Hungary]. (1990–1999). *Közgazdasági Szemle*, XLVI(11), 969–992.
- KOPITS, GEORGE (1995): Hungary's Preannounced Crawling Peg. *Acta Oeconomica*, 47(3–4), 267–286.
- LANGMÁR, FERENC – PAPP, EMÍLIA (1996): Bank consolidation Körhítel [Loan carousel] https://magyarnarancs.hu/belpol/bankkonszolidacio_korhital-61912.
- MNB (1998): Jelentés az infláció alakulásáról. [Inflation report]
- MNB (2001): Az MNB tevékenységének átalakulása, [Transformation of MNB activities] 1995–2000. <https://www.mnb.hu/letoltes/mnbtev19952000-hu.pdf>.
- MNB (2007): A Magyar Nemzeti Bank tevékenysége, [MNB activities] 2001–2007. <https://www.mnb.hu/letoltes/mnb-tevekenysege.pdf>.
- MNB: Tájékoztató az Országgyűlés részére az évi pénz- és hitelpolitikai irányelvekről [MNB: report to Parliament on annual money and credit policy guidelines]. MNB Budapest, different years. https://www.mnb.hu/archivum/Kiadvanyok/mnbhu_inflacio_hu/korabbi-kiadvanyok-1998-2014-marcius-ig/mnbhu_inf9811.
- PIROSKA, DÓRA (2017): Központi bankok és bankárok Kelet-Európában [Central banks and bankers in Eastern Europe]. Book review of JULIET JOHNSON: *Priests of Prosperity. How Central Bankers Transformed the Postcommunist* (World Cornell University Press, Ithaca, N. Y., 2016). *Közgazdasági Szemle*, LXIV (4), 448–452.
- PIPER, ROSEMARY – KIRÁLY, JÚLIA – SZÉKELY P., ISTVÁN – ÁBEL, ISTVÁN – RIECKE, WERNER – SZAKADÁT, LÁSZLÓ (1994): A pénzügyi szektor reformja a piacgazdaságra való átmenet időszakában Magyarországon [Reform of financial sector in Hungary in the period of transition to market economy]. Budapest, Hungary: Kék Szalag Bizottság Alapítvány.
- RIECKE, WERNER – ANTAL, LÁSZLÓ (1993): Hungary: Sound Money, Fiscal Problems. In: RICHARD PORTES (ed.) (1993): *Economic Transformation in Central Europe: A Progress Report*. 107–30. Budapest: Centre for Economic Policy and Research.
- RIECKE, WERNER (1993): A monetáris politika céljai és eszközei [Objectives and instruments of monetary policy]. Manuscript, MNB.
- RIECKE, WERNER – SZALKAI, ISTVÁN – SZÁZ, JÁNOS (1981): *Tanulmányok az árfolyamelmélet és árfolyampolitika témaköréből* [Studies on exchange rate theory and exchange rate policy]. Budapest: Pénzügykutatási Intézet.
- RIECKE, WERNER – SZALKAI, ISTVÁN – SZÁZ, JÁNOS (1985): *Árfolyamelméletek és pénzügypolitika* [Exchange rate theories and financial politics]. Budapest: Közgazdasági és Jogi Könyvkiadó.
- ROMHÁNYI, JÓZSEFNÉ (1999): A Magyar Nemzeti Bank történetének kronológiája, Budapest: [Chronological history of MNB] MNB, June.
- SIKLOS, PIERRE (1994): Central Bank Independence in the Transitional Economies: A Preliminary Investigation of Hungary, Poland, the Czech and Slovak Republics. In: BONIN, J. – SZÉKELY, P. I. (eds.) (1994): 71–98.
- SIKLOS, PIERRE. L. – ÁBEL, ISTVÁN (2001): Is Hungary ready for Inflation Targeting? *Economic Systems*, 26(4), 309–333. https://www.researchgate.net/publication/222189290_Is_Hungary_Ready_For_Inflation_Targeting.
- SURÁNYI, GYÖRGY (2001): Transformation of the Activities of the National Bank of Hungary 1995–2000. <https://www.mnb.hu/letoltes/mnbtev19952000-en.pdf>.
- SURÁNYI, GYÖRGY – VINCZE, JÁNOS (1998): Infláció Magyarországon, [Inflation in Hungary] 1990–1997. In: COTTARELLI, C. – SZAPÁRY, GY. (eds.) (1988): *Mérsékelt infláció. Az átalakuló gazdaságok tapasztalatai* [Moderate inflation, Experience of economies in transition]. Budapest: Magyar Nemzeti Bank, 150–170.
- SZALKAI, ISTVÁN (1995): *A monetáris irányítás*. [Monetary control] Budapest: Bankárképző.

SZAPÁRY, GYÖRGY – JAKAB, M. ZOLTÁN (1998): A csúszó leértékelés tapasztalatai Magyarországon [Cracling peg devaluation in Hungary]. *Közgazdasági Szemle*, XLV (10), 877–905.

URSPRUNG, JÁNOS (1996): A kétszintű bankrendszer fejlődése Magyarországon [Evolution of a two-tier banking system in Hungary], 1987–1995. <https://doksi.hu/get.php?lid=26532>.

WAGNER, HELMUT (1998): Central Banking in Transition Countries. Working Paper 98/126, International Monetary Fund.

Act LX of 1991 on the National Bank of Hungary.

Act CXXIX of 1996 on the amendment of Act LX of 1991 on the National Bank of Hungary.

FROM THE MARSHALL–LERNER CONDITION TO CENTRAL ASIAN GOVERNMENT SECURITIES MARKETS

Werner Riecke (1953–2021)

János Száz¹

THE CALMEST RESTLESS PERSON

Werner was the most peaceful restless person I have ever known.

In 45 years of our friendship, I have never heard him shout or talk angrily. At the same time, he was always engaged in some problem waiting to be solved. Even if he had a cigarette or a pint of ale in his hand.

You could always sense he did have an opinion whether he stated it then and there or if he simply observed a debate. His gestures revealed that his mind had been at work all the time. He listened to what he heard and immediately processed it. Still, he was not a person who wanted to voice his opinion in a debate at all costs. He had substantive replies to what he had just heard and could lend an ear to what his partners wanted to say. But he never presented his audience with bits and pieces picked out of what he had heard from others. He was keen to draw his own conclusions.

Even at a young age he was acknowledged as a smart guy, although he never boasted. He never wanted to look smarter or better informed than others. As he was growing older, his experience on economy and the world had been processed and accumulated.

We worked together from time to time; we were writing a book, preparing for the next meeting of the banking board in his office, or delivering a course at the other end of the world.

He only scolded me for one thing: “*How can one program/code in such an ugly way?*” He was right.

I have learnt from him how you must and why it is worth to break down a very long programme into smaller modules instead of many GOTO commands pointing here and there. His way of thinking was extremely structured. Some people

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like playing chess. Werner loved writing his algorithms himself and supported his statements with figures till the end of his life.

The IMF delivered a course in Budapest in 1985 (it may have been the first and only one of its kind in this wider region). Commissioned by the National Bank of Hungary (MNB), we together with Werner and László Nadrai (MNB) had been writing a software for Commodore 64 (which was, in fact, not 64 but only 38 Kbyte) for the course for several months. It was partly a database manager and partly a statistical programme, which processed the figures of any given country to run calculations needed to prepare a financial programme focusing mainly on the items of the balance of payments. The US speakers arrived to the course carrying Apple laptops and were faintly amused to watch as we were trying to connect C-64 machines with a Soviet made Yunost TV used for a screen. Because of the plastic carpets of Hotel Intercontinental on the bank of the river Danube, the operation was pretty “shocking” in the original sense of the word. But the three speakers from the US were all the more astonished to watch how our programme on the Commodore could prepare the financial programmes of each team.



I must mention at this point that although Werner was most intrigued by the practical and academic issues of economic policy, and that is how his person is remembered by the public, he had also learnt several versions of many **programming languages** during his life. To read and digest the mathematical background of economic models is time consuming, but they are fine once you had understood them. But if you want to dive into the depth of IT, you must get to know many *new and even newer versions*.

Werner belonged to the generation that started programming at the University of Economics in the mid-70s using machine code on a 4-kbyte (!) Cella-tron machine imported from the German Democratic Republic (GDR). The solution formula for a quadratic equation was a 129-line programme. Later, the privileged had a chance to program on code pages in FORTRAN, which was then punched on punch cards, and the programme was run uphill in the Castle District on a CDC 3300 machine owned by the Academy of Sciences. Correcting a single error took 2-3 days. You had to find the error on a continu-

ous fold-out, punch a new card, send it up to the Castle, then the continuous fold-out came back, etc.

Next, we could use a four-story building in Szugló Street Budapest, which was the information technology centre of the National Planning Office (OT). The bulky machine there could perform just a fraction of what a modern laptop can. The machine-time required for the calculations of a thesis could cost as much as two Russian-made cars. It was at that time that pocket calculators appeared at a few filling stations. You would spend half of your monthly salary if you wanted one that could raise a number to a power and could also store the result for further calculations.

When we were writing a programme together with Werner for the IMF course in the mid-80s, the C64 machine was connected to a cassette reader. Our book 'Kötvény' [bonds] written in tandem with Tamás Bánfi and Márta Sulyok was on a cassette like that, which was then transferred to paper with the help of a ball-head Robotron typewriter from the GDR connected to the C64.

Next, there came a building of the OT on the Pest side of Chain Bridge nicknamed "the Spinach" for its colour, where we ran into Werner from time to time as we were running the statistical programme package TSP (Time Series Processor) and had memorable lunches at the excellent canteen located on the top floor. At that time, TSP included potential explanatory variables in regression equations, and we could scour thick continuous foldouts to find the statistics of R^2 s and the variables in the 1,000-1,200 equations returned. That was how we were trying to find what the evolution in the stock of fixed assets of the economy depended most on. Today, it is all done by machines, thank God.

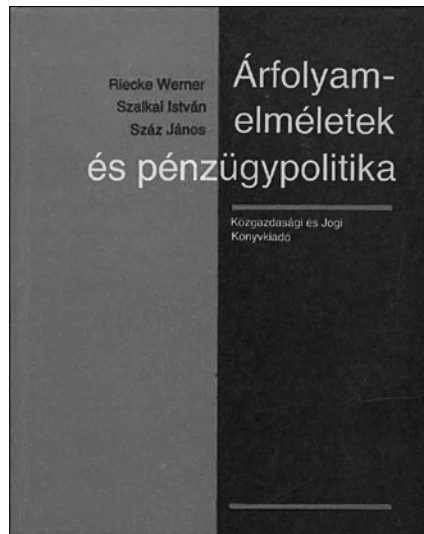
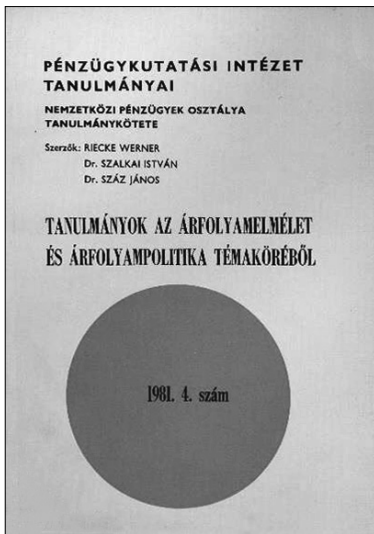
How many thousands of hours Werner devoted to programming and learning new programme versions, I wonder? So, his comments made at the meetings of the Banking Board had been built on a gold foundation.

THE MARSHALL-LERNER CONDITION, ROBINSON CONDITION

Werner, while he had the true personality of a westerner, slowly and instinctively opened towards the East. His first act of opening was when he came to study to Hungary from the GDR. He read economic theory here. He first tried to use his knowledge to improve the operation of the Hungarian economy and later, in another opening to the East, following his period as the Deputy Governor of the MNB, he was a permanent representative of the IMF in three Central Asian countries (Azerbaijan, Kirgizstan and Tajikistan) aiding the set-up of their government securities markets. Then, he went on to Bangladesh.

At the beginning of the '80s, *the convertible current account balance* was the most volatile point of the Hungarian economy. Werner published his study on current account balance theories in 1981 as one of the series by the Financial Research Institute headed by *István Hagelmayer* (*Studies of the Financial Research Institute*) jointly with two other papers. At the time of the **1982** international financial crisis, Hungary was closest to going bankrupt. It was such a threat that Hungary was the first of the COMECON countries to join the International Monetary Fund (IMF). National bankruptcy was avoided using some bravura of financial engineering, which earned State Awards for five people.

One of them was *István Szalkai*, who was the best expert of the technical details of disclosure obligations linked to IMF membership and the logic of monetary policy centred on the current account balance. He was one of the initiators and an expert in preparing. I was our entry to the IMF. He soon became a Deputy Governor of NBH responsible for monetary policy. He was the author of the second paper in the series edited by Mr Hagelmayer.



My paper was the third. I was writing about the classification and description of floating exchange rates generated at the time. In the first half of the '70s, the post-WW II Bretton Woods system, in which national banks held exchange rates fixed, broke down. Mathematical models appeared for floating exchange rates, but the roots of certain problems ran deep, going back several hundred years. For instance, the debate of the *Caps and Hats* party in the Swedish Parliament in the 1700s on whether inflation was the cause or the effect of the deterioration of exchange rates, and what connection the latter had to current account balance.

Werner's 1981 paper provided a summary on the conditions to be met to ensure *devaluation* improves the balance of trade. The traditional theory explained the problem through exchange rate flexibility (*Marshall–Lerner condition*, *Robinson condition*). The new feature in literature was *the monetary theory of the balance of payments*. My paper discussed what makes a floating rate appreciate or depreciate, while István (Pista) Szalkai explained how all that is transformed into financial policy. It was Werner's idea that the three papers written separately should be edited into one single book. It did happen and the book was published in 1985 earning an award for quality.

One should not forget there was no internet or smart phones at the time. You had to use a study tour to visit a special library abroad to find the answer to one or another specific problem. The part played by a collection of specific studies such as the one on the photo filled several gaps. Partly because the sense of the gap or deficiency had often not been there in terms of the novelties of our profession. But problems there were many, and it was useful to learn what modern, more advanced countries of the world used to remedy them.

An extract from the Contents of the book clearly demonstrates the structure of Werner's paper.

To describe his style as verbose would be an overstatement. For illustration, here are a few pages, and

<p>2.</p> $\frac{dS}{dr} = \frac{dS}{dP_3 r} \left[\frac{dP_3}{dr} r + P_3 \right] = \frac{dS}{dP_3} \left[\frac{dP_3}{dr} r + P_3 \right] = \epsilon_x \frac{S}{P_3} \left[\frac{dP_3}{dr} r + P_3 \right].$ <p>3.</p> $D_x = D(P_3),$ $\frac{dD}{dr} = \frac{dD}{dP_3} \frac{dP_3}{dr}.$ <p>4.</p> $\frac{dD}{dP_3} \frac{dP_3}{dr} = \epsilon_x \frac{S}{P_3} \left[\frac{dP_3}{dr} r + P_3 \right]$ $\left[\frac{dD}{dP_3} - \epsilon_x \frac{S}{P_3} \right] \frac{dP_3}{dr} = \epsilon_x \frac{SP_3}{P_3}$ $\frac{dP_3}{dr} = \frac{\epsilon_x SP_3}{\left[\frac{dD}{dP_3} - \epsilon_x \frac{S}{P_3} \right] P_3}.$ <p>5.</p> <p>Ez utóbbi eredményt az I. Műpénzen nyert összefüggésbe behelyettesítve adódik, hogy:</p> $dX_1 = \frac{\epsilon_x SP_3}{\left[\frac{dD}{dP_3} - \epsilon_x \frac{S}{P_3} \right] P_3} D [1 + n_x] = \frac{\epsilon_x X_1}{\frac{dD}{dP_3} \frac{P_3}{D} - \epsilon_x \frac{S}{D}} [1 + n_x].$ <p style="text-align: center;">236</p>	<p>és ebből:</p> $\frac{dX_1}{dr} \frac{r}{X_1} = n_{X_1} = \frac{\epsilon_x (1 + n_x)}{n_x - \epsilon_x} = \frac{1 + n_x}{\epsilon_x - 1}.$ <p>Hasonlóképpen bizonyítható az összefüggés az importtértek árfolyamrugalmasságára vonatkozóan.</p> <p style="text-align: center;">1.3. A leértékelés hatása a cserearányok alakulására</p> <p>A cserearányok javulása úgy fejezhető ki:</p> $\frac{dP_{12}}{P_{12}} > \frac{dP_{21}}{P_{21}},$ <p> vagy</p> $\frac{dP_{12}}{P_{21}} \frac{r}{dr} > \frac{dP_{21}}{P_{21}} \frac{r}{dr},$ <p> vagy</p> $n_{P_{12}} > n_{P_{21}},$ <p>ahol: $n_{P_{12}}$ illetve $n_{P_{21}}$ az export-, illetve importárnk árfolyam szerinti rugalmasság.</p> <p>Viszont:</p> $\epsilon_x = \frac{dS}{S} : \frac{dP_{12}}{P_{12}},$ $\frac{dS}{S} = \epsilon_x \frac{dP_{12}}{P_{12}},$ <p>és</p> $n_x = \frac{dD}{D} : \frac{dP_{12}}{P_{12}}.$ <p style="text-align: center;">237</p>
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I will highlight some major text components hidden among the formulas:

- *it follows from this,*
- *furthermore,*
- *however,*
- *for this reason, ...*

Hemingway could have been envious of this lean style.

Werner was a slight man. Neither his body nor his mind were shapeless. His main characteristic features were cohesion and detailed consideration.

Our apprentice exercise at the 1985 IMF programming session was followed over two decades later by three Central Asian courses on government securities markets (Azerbaijan, Kirgizstan, and Tajikistan). Werner was the chief organiser of them and invited me too to deliver lectures at those exciting places.

Werner won his Popovich Award in 2005. It is a rare occasion that two winners of the award, who had won them in different times (1994 and 2018), would ponder the same problem in a common exchange of e-mails shared with fifteen others. We received a letter from Werner at 13,30 hrs on 6 February 2019, in which he said he agreed with *Attila Chikán* and "*Attila's wisdom overwrites everything. From here to eternity. Werner*".

I did not know, did not even suspect that that would be the last message I received from Werner, who had been my friend for four decades.

We were many who commenced their careers from the Rajk College in the '70s and '80s. And it was the beginning and the end of my friendship and relations with Werner.

From here to eternity, Werner.

TWO SIDES OF A COIN: MONETARY POLICY AND PUBLIC DEBT MANAGEMENT¹

*Judit Neményi*²

I met *Werner Riecke* at the start of his career at the end of the 1970s. After receiving his degree, he started working for the Department of Econometrics headed by *Mr Szokolczai* (INFELOR System Technology Company). The company was working on assignments by the Central Statistical Office (KSH). We mostly prepared economic calculations for different ministries, and we dealt with SAM-based structural and time-series econometric models and analyses (applied research). We gained a comprehensive economic worldview via macro models of the national economy³, and breaking them down we progressed towards the details during our career. Although we never worked together in the “INFELOR” years, we talked a lot and found we had similar views on many things. Our friendship can be dated to have started there.

Following the elimination of the Szokolczai Department⁴, we worked at various places until the fall of the Socialist regime. After a short stay at the Price Office, Werner worked for the Financial Research Institute, then for different economic policy secretariats (the tax reform by *Kupa*, the economic policy of *Medgyessy*) until he was invited to the National Bank of Hungary (MNB) in 1990 by *György Surányi*. There he was first an advisor to the Governor and then became head of the predecessor of the Department of Monetary Policy. He was appointed managing director of the area of monetary policy in 1995 and Deputy Governor in 1998.

1 Edited version of a talk given at the memorial conference dedicated to Werner Riecke organised at the ‘Rajk’ Special College on 30 September 2021.

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3 Both of us obtained our degrees from the Chair of Economics-Mathematics at the Department of National Economy Planning and Analysis. Later, at the National Bank headed by *György Surányi*, we were categorised “macro experts” versus “finance experts” who were “really into banking affairs” (sic!).

4 All workshops operating well were eliminated in Hungary in the period of Socialism but later on as well. Just think of the elimination of background institutions at around the fall of Communism or, for instance, of the first independent Budgetary Council. Whenever one or another of our workplaces were closed, we had to find a new job. Provided Werner and I had written the story of our job-changes in the ‘80s, it would have amounted to a complete description of the operation of late Socialism.

I worked for different workshops of the National Planning Office (Department of Modelling, Institute of Planned Economics) and then for GKI Economic Research Co).

Life again brought us close at the time of transition, during the early nineties. As macro-economic time series had broken down and time series econometric modelling had become impossible, I tried a new area, economic policy making for the Department of Money and Capital Markets of the Ministry of Finance established at the time. My task was coordination and cooperation with the National Bank of Hungary and establishing market financing of the budget (setting up the market of government securities). Then I joined MNB in 1995, where I directed economics and research as the chief economist and became a member of the Board of MNB.

Werner and I worked closely together for a decade beginning in 1992 making efforts to promote the establishment of the basic institutions of a market economy in Hungary and help their effective operation. We were dreaming about price- and financial stability. Right from the start, we were aiming at membership in the European Union and the introduction of the common currency. This necessitated cleaning the profiles of key institutions – the central bank and the budget - by getting rid of out-of-place tasks and setting up important institutions to promote the creation and development of key markets that had never existed during Socialism.

I want to recall now two examples of the outcome of our work that have been having an impact to the very day.

1 1992–1996: TRANSFORMATION OF THE NATIONAL BANK OF HUNGARY INTO AN INDEPENDENT CENTRAL BANK

The situation at the fall of Socialism could be described briefly as follows.

- MNB provided unlimited funding to the budget at preferential rates;
- the foreign currency debt of the state was included in the balance sheet of MNB, the Bank took out foreign currency loans on its own behalf;
- the Bank charged the exchange rate loss generated because of the devaluation of HUF to the budget as an interest-free perpetual loan;
- the balance sheet of MNB also included a huge portfolio of refinancing loans at preferential rates;
- and because of all the above, MNB operated with increasing losses. It could not be maintained in an environment of strong inflation, so the budget had to recover the loss.

In other words, there was unlimited monetary funding, refinancing at preferential rates, foreign currency indebtedness of the sovereign Central Bank, but there was no liquid government securities market and there was a shortage of institutional investors.

The law on the Central Bank was adopted at the end of 1991. It stipulated the monetary funding of the budget had to be eliminated gradually, and ordered a step-by-step reduction envisaged for five years. Two Government Decrees were adopted in 1992. One provided to establish which institution held the Hungarian sovereign debt on its balance sheet and what its size was.⁵ The other stated the budget deficit could only be financed by marketable government securities beginning from 1993.⁶

On the one hand, one had to transform a monobank of the Socialist economy into an independent Central Bank, and on the other hand, budget funding had to be given market-based foundations, which required the establishment of a government securities market.

We were helped in solving those tasks as we could take part at courses of monetary policy and debt management organised by the IMF and the Bank of England in the first half of the 1990s. We were trying to adapt what we had learnt to the Hungarian environment so that the key institutions of a market economy could be set up and start operation as soon as possible. We were self-educated, we worked in “learning by doing” but we spoke the same language.

The so termed quasi-fiscal (funding and debt management) operation of MNB had to be eliminated to achieve its independence and promote its effectiveness in terms of monetary policy. In addition to gradually eliminating the refinancing of the private sector at preferential rates, the greatest challenge was to eliminate the monetary funding of the budget and the status of MNB as Hungarian sovereign debtor. We succeeded to get rid of direct Central Bank funding gradually, while a debt exchange/credit swap conducted at the end of 1996 put an end to the foreign currency indebtedness of MNB in its own name.

Werner was wrestling with those tasks at the MNB, while I was doing the same at the Ministry of Finance. He represented the aspects of *monetary policy*, I oversaw *debt management* considerations, but both of us had been aware right from the start that we were dealing with *the two sides of the same coin*. We soon discov-

5 The real volume and composition of public debt could only be established by consolidating the balance sheets of MNB and the budget.

6 The law stipulated the full elimination of monetary funding to be reached by 1996. It allowed the increase of the volume of government bonds held with MNB to be progressively reduced year-on-year beginning from 1993.

ered a study by Nobel laureate *Tobin*.⁷ It was also clear in practice that monetary policy and debt management affect the whole spectrum of outstanding debt in an economy albeit through different channels, at different intensity and delay.⁸

It was also clear right from the start that the collaboration of the budget was necessary to implement either cost saving financing or disinflation. However, the budget deficit was rocketing as the markets and the economy collapsed, which was further increased by the appearance of market rate interest expenditure, and it could not be curbed in the first half of the decade. Funding demand highly surpassed available sources, which made institutional restructuring quite difficult.⁹ Institutional investors were rare on the government securities market and the infrastructure of selling them (primary dealer system) had not yet been created. Therefore, MNB had a dual agency part to play. On the one hand, it arranged auctions of government bonds and on the other hand, since all the announced instruments were not usually sold at the auctions, MNB took them as a “residual buyer” to sell in its network keeping in mind restrictions on monetary funding provided in the law.

In a joint effort with Werner a committee was set up (it would be termed liquidity management committee today). It had weekly meetings to ensure “the coffers” should never be empty and the country should not go in default. In later decades when some politician or expert cried wolf (default) in a demanding situation, I always thought, “you have never seen one like that”. We, however, together with Werner and four other knowledgeable colleagues did manage the liquidity of the state on a daily basis for quite a long time (from 1992 to 1994), and sometimes it was a narrow escape to find the funds covering due payments.

In the meantime, we gradually developed the market of HUF-denominated government securities. We arranged auctions starting with discount treasury bills and moving to government bonds of increasingly longer maturity while retail instruments were also issued to a limited extent. The first issuance plans were finalised. Next, we prepared the market to be opened to foreign investors and the plan for the primary deal system had also been drawn up.

7 JAMES TOBIN (1963): *Fiscal and Debt Management Policies*. The Commission on Money and Credit. Prentice-Hall, Inc. Englewood Cliffs, N.J.

8 „*There is no neat way to distinguish monetary policy from debt management, the province of the Federal Reserve from that of the Treasury. Both agencies are engaged in debt management in the broadest sense, and both have powers to influence the whole spectrum of debt.*” (JAMES TOBIN [1963]: *An Essay on Principles of Debt Management*. In TOBIN (1963:143–219).

9 The problem was solved in spring 1995 by means of a budgetary corrective package introduced by Lajos Bokros, the minister of finance.

We soon realised that *no economic policy could be successful unless monetary and fiscal policies were coordinated*, although a concept growing stronger in the world advised that “*everybody (i.e., the two main branches of economic policy) should mind their own business.*” Coordination and collaboration were not fashionable. An institutional “separation” of governments and central banks was intended to safeguard the independence of central banks gained recently.¹⁰ The same basic principle was in the background of preparations to join the Euro-zone that started at that time. However, what had been considered best practice in the industrialised world, was not always a winner in the emerging Central and Eastern European countries *en route* to market economies. We could achieve a certain reputation internationally as we were trying to operate our institutions (the Ministry of Finance and MNB) conscientiously and in a coordinated manner. Werner and I were working to that goal, although we were not yet part of decision making at our institutions and often met with a lack of understanding.

We had to fight “at two fronts”. Powerful bosses at the Ministry of Finance had trouble understanding that transition to a market economy means the (preferential) interest rate payable on sovereign debt should not and would not be born out of bargains between the two actors (MF and MNB). At the same time, the all-powerful Deputy Governor of MNB found it difficult to understand why it was necessary to establish a government securities market denominated in the local currency, as one could easily go into debt with loans drawn from abroad or from commercial banks.¹¹

Werner had been the spiritual father of many ideas, particularly relating to central bank instruments or modes of operation in the first part of the 1990s that allowed MNB to stay firm in the management of the country in a strained financial situation. However, monetary policy could only be effective if MNB were cleaned of its quasi-fiscal functions, and if the markets we were building could transmit the signals from MNB to the financial sector and the economy. MNB withdrawing from its position as sovereign debtor was one of the hardest tasks.

It had become clear by 1993 that the so termed “zero coupon” budgetary loan portfolio held by MNB (bearing zero interest and without maturity), which had

10 Other countries aspiring to join the eurozone were not much ahead of us at the beginning of the '90s in terms of meeting the relevant monetary and fiscal requirements, while the central banks of some of them became independent in the last minute only.

11 Considering that Hungary always honoured its debt service obligations to foreign creditors after the fall of Socialism, there was nothing to prevent the country from taking out further loans. An idea was raised: if we want to go into debt in HUF, why not copy what Austria is doing. They invite six commercial banks and have them underwrite a loan/bonds in private placement. It was difficult to get the importance of market pricing accepted.

been accumulated from devaluation losses generated on foreign currency debt, had to be transformed into interest bearing marketable government securities to ensure efficient monetary operations.¹² The “zero coupon” portfolio had grown so large by 1995 that it made up for about forty percent of the gross government debt measured by the Maastricht rules while its real structure was hidden as the foreign currency debt could be found in the portfolio of MNB- This major problem was solved by a “debt exchange” at the end of 1996. It meant the whole “zero coupon stock” was converted into interest bearing marketable securities after which the Government Debt Management Agency (ÁKK) took out and managed the foreign currency debt of the budget. In that way the monetary and fiscal functions had been finally separated from each other.

2 1995-2001: EFFECTIVE OPERATION OF THE EXCHANGE RATE TARGETING MONETARY SYSTEM

Restructuring budgetary policy and the reduction of the deficit in 1995 paved the way for effective monetary policy and cost saving debt management.

The operation of the *exchange rate targeting monetary system, which applied a pre-announced narrow-band crawling peg as nominal anchor* and was implemented side by side with the large-sized budget adjustment package in 1995, presented new tasks in terms of the transformation of monetary instruments and their application on the one hand, and the renewal of decision making on the other.

In that period the ultimate goal of monetary policy became the mitigation of inflation (two-digit at the time) and achieving price stability; however, the operative target variable was the HUF rate according to the characteristic features of the exchange rate targeting regime. In that system, the Governor of the Central Bank, György Surányi made interest rate decisions, since immediate, fast decisions might be needed because of movements within the exchange rate band. Decisions affecting the monetary system were in the scope of the Central Bank Council.

The Governor of MNB needed a highly structured information system allowing him to respond to market shifts quickly and properly. Its components included monetary guidelines, inflation reports and documents by the operating monetary committee (OMB). Naturally, we also prepared regular macroeconomic forecasts

12 Our experience with the “zero coupon stock” have made us sceptical about non-marketable, zero interest-rate, without maturity instruments, mainly loans, drawing which has also been suggested internationally during the Covid crisis.

every quarter, but MNB did not publish them to curb speculative movements against the narrow exchange rate band.

After 1995, when I was also working for MNB, we divided tasks with Werner in such a way that he was responsible for monetary instruments and market operations while I headed planning the economic and research tools for decision making. As a member of the Bank Council, Werner also participated in decision making as vice-president beginning from 1998.

The Department of Monetary Policy was charged with¹³ drawing up monetary policy guidelines using the forecasts delivered by the Department of Economics. The Department of Economics and Research drafted the documents for decision making, economic analysis and applied research. The inflation report published quarterly from 1998 was the key product of the Department. Monetary policy headed by Werner produced short-term market analyses, documents for the weekly meetings of OMB (Operative Monetary Committee) and was also responsible for developing Central Bank instruments.

Headed by Werner, *the instruments of sterilised intervention policy* were created then. MNB intervened (bought foreign currency) at the strong edge of the exchange rate band operating with lower and lower pre-announced devaluation, and then withdrew the excess liquidity from the system using different means (reverse repo or, when the Bank had no more government securities, by introducing two-week deposits).

Gradual reduction of inflation, which characterised the monetary policy of the second half of the 1990s, was strongly criticised both from outside and inside. However, looking back on it, it can be said to have been clearly successful. Everybody acknowledged it subsequently. The balance of the economy had taken an upward course. The system of crawling peg had run out by the middle of 2000. To reduce inflation further (one-digit but still quite high), one should have had a change in the exchange rate and monetary regimes. A wide-band regime or free-floating would fit better to fight inflation pressure. Offering no acceptable professional justification, the first *Orbán government* torpedoed a change in the exchange rate system including the introduction of a wider band. In retrospect, one may think *Zsigmond Járai* who had been a candidate for the position of Gov-

13 Drawing up the Guidelines was useful for orienting market players and for liaising with the government, since they included the considerations monetary decisions were built on. The Guidelines also included forecasts by MNB. Later, following the implementation of the system of targeting inflation, the inflation reports included the forecasts. The Guidelines were eliminated in 2001 saying they violated the independence of MNB, but it did not prove to be a good decision, as the markets often got worried because of key interpretation and competence issues (when and who should decide the inflationary target, what will the Bank respond to, etc.).

ernor of the National Bank since 2001 “might have wanted to reserve that historic change for himself.” The story would not be worth mentioning at all, except for the surprising fact that Werner had also been against widening the band at the meeting of the Monetary Council held at the beginning of July 2000. I could never discover why he changed his mind on such an important question (he had been supporting an early band widening earlier). A year later the new Governor of the National Bank widened the exchange rate band in one of his first measures.

Werner’s and my careers diverged after 2001. When we met again, I did not want to burden our friendship by asking him how he could have voted for Járjai’s over politicised, counter-productive, overstrict monetary policy from the second half of 2002 and all the time in 2003, which hindered the emergence of the country just as much - if not more - ¹⁴as the “fiscal alcoholism” blamed so heavily.

The 1990s had been clearly successful for us. Macroeconomic indicators had improved by 2000, convergence to the EU could have been launched. The growth of the economy, the reduction of inflation, external and internal balances were all fine; public debt was reduced by thirty percentage points of the GDP and approached 50 per cent. Although the option to access the EU was still far away, there was a real chance for the Euro to be introduced by the end of the next decade. You simply had to put your mind to it. But it was not to happen. It was sometimes decided (2002-2006) but nothing serious was done to make it happen. Finally, the plan of Euro was rejected (2010-2021) because decision makers intended to weaken the HUF rate for getting easy financing. Postponing the “Euro-project” under different pretexts was the key sin of Hungarian economic policymakers in the first twenty years of the 2000s, because it has set the country back. Werner and I shared this opinion.

3 NEGLECTED

His assignment as Deputy-Governor of the National Bank expired in 2004 and then Werner was not given a task in the process of shaping economic policy in Hungary. Nevertheless, he did not spend his last 15 years useless. He could give much useful advice in developing countries regarding the establishment of a government securities market or debt management, but he could have and should

14 The most spectacular proof of the botched interest policy became evident in January 2003 when, as a real ‘Hungaricum’, the strong side of the ± 15 per cent-wide band suffered a speculative attack. Then, following a shift in the band, the Monetary Council pushed the spread to above ten percentage points, when there was an excess of liquidity in the world. The rise of interest expenses made fiscal adjustment more difficult.

have served the emergence of this country using his knowledge and experience. Unfortunately, however, he had no more opportunity to turn around erring economic policy decisions. He published articles with his pertinent remarks and proposed improvements.

In retrospect, I think the years with MNB had been the peak of Werner's career. There is no doubt he played a decisive part in shaping its profile as a modern central bank and building its instruments for the market economy. Our great common dreams could not come true. The stabilisation of the country is still uncertain. Turning the economy onto a sustainable growth path is still a challenge although general circumstances are basically different. The introduction of the Euro has moved farther away over the past decade than ever before.

CRISIS AND RECOVERY

In memoriam Werner Riecke

*Tamás Tétényi*¹

I first came across Werner's name in a paper he wrote on exchange rates applying a model by *Trzeciakowski (Ábel–Riecke, 1980)*. We first met in person at the Rajk' College for Advanced Studies where he delivered a lecture on the pitfalls of time series estimations of production functions. Later, we became colleagues and friends at the Secretariat of the Economic Policy Cabinet of the Government, which I joined in 1988, and Werner in 1989.

1 A PIVOTAL PERIOD

In the period following the unfinished reform of the new economic mechanism in 1968, planning decisions had priority in economic policy, both fiscal and credit policy had to serve them. The lack of an explicit monetary policy did not prevent the economy from operating as if it had responded to a very expansive credit growth. Because of extra demand, depending on the strictness of import rules, either inflation or imports increased uncontrollably. The endgame closing that period, which first produced fast growth and then stagnation and a debt crisis, was introduced by the stimulation announced at the 1985 Party congress. It became evident in less than a year and a half that a Party congress could not become a growth engine. 1987 became the year of disillusionment; changes in the economic policy, on senior positions and, finally, in politics laid down the foundations for the transition.

A two-tier banking system was reintroduced by outsourcing financing production and development from the National Bank. Independent monetary policy, taking responsibility for certain economic policy decisions, was needed. To make the balance of payments sustainable, domestic use of the GDP had to be reduced, so the primary task was to ensure that the growth of money supply should lag behind the GDP. Since it came into being amid a financial crisis, the top priority of Hungarian monetary policy was (and remained for another decade) to preserve

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the solvency of the country, while the objective of achieving price stability was temporarily shelved.

As the two-tier banking system was restored, new commercial banks appeared taking their share in enterprise promotion and selection, in funding development projects and on the capital market, however, their impact remained limited because of the lack of equity investment institutions and investors. Hungarian banks were closed to foreign and retail funds. They were cut off from the former by a system of controlled currency management (inherited from 1931 and, although restrictions were getting more and more lenient over time, it was finally eliminated in 2001 only); and from the latter by the decades-long dominance, transformed into a market leadership by now, of the National Savings Bank (OTP). Thus, monetary policy started to operate through the National Bank refinancing.

Werner always treated the monetary system as a model, using the monetary approach to the balance of payments, and he was aware of the mechanism and the limits of the approach as well. It was limited not only in the general sense, in a small and open economy, where the central bank is able to control money supply only partially, particularly when the exchange rate is fixed.² Monetary transmission was also restricted by temporary and lasting wedges and leaks. The period starting at the end of 1987 was the story of a central bank trying to strictly control credit supply; and of an economy evading it wherever possible.

Queueing, trade credit enforced by dominant market positions, was temporary. Because of its narrow monetary function, it remained limited, and the transformational crisis and the wave of bankruptcies caused by the fall of the GDP swept it out of the system. On the other hand, the positive balance with COMECON countries was a decade-long significant leak eating away any BOP impact of the tightening monetary and fiscal policy. The surplus was induced by the failure to increase imports, rather than by structural changes. Only when COMECON disintegrated did that leak close, including the forced lending to other member states; liquidation of the accumulated debts took a decade in itself.

As the two-tier banking system was introduced, the commercial banks took over existing loan portfolios that quickly deteriorated along the transformational crisis, revealed as market transparency started to improve. The concentration and deterioration of the loan portfolios of the banks limited customer selection, and even enforced further lending to loss-making companies. Non-performing loans were toxic for the banking system and jeopardised its functioning, so it indirectly

2 As regards the impossibility of enforcing the stability of exchange rates, monetary independence and integration into the international capital markets at the same time (trilemma), cf. (in Hungarian): MAGAS, 2018.

hindered monetary policy too. Only when the central government intervened, starting from 1992 until 1995, with direct purchase of non-performing loans through consolidation schemes, did commercial banks and monetary policy start to operate efficiently.

It became apparent as early as in 1988 that a hardening monetary policy could be offset by softening budgetary constraints, as commercial banks turned to the budget lobbying on behalf of their large debtors, even when the resolution of defaulting companies by the state appeared to be legally successful. Fiscal policy offset monetary policy by substituting credit with direct government aid. As of 1989, the refinancing policy of the National Bank regarded offsetting this substitution as its main objective in terms of managing money supply.³

2 THE YEARS OF TRANSFORMATION

During the years of transformation, Werner directed the monetary policy of the National Bank of Hungary, operating and also from time to time adjusting the instruments of monetary policy adapting it to shifting objectives and circumstances. Given the free fall of production, the collapse of the COMECON markets and the loss of balance caused by the crisis of transformation, household savings increased despite the shrinking employment. In the shadow of the wave of bankruptcies hitting the country, the productivity of companies, production, and sales structure also improved significantly. However, the loss of solvency was a constant threat. On the other hand, forced improvement of the double deficit would have driven adaptation to a halt and “the economy would be reduced to the consolidated balance sheet of the budget and the National Bank”.⁴ A series of inflationary fiscal measures (known later as the infamous *Bokros package*) was supported by new exchange rate policy measures and privatisation was boosted. As a result, economic consolidation slowly commenced in 1995. (Its speed was well characterised by Lajos Bokros, Minister of Finance at the time: “A warship will take time to turn but it can sink rapidly.”)

Foreign exchange reserves started to grow as the deficit of the current account balance was reduced, the so-called non-debt-generating financing (FDI) gained momentum and additional privatisation revenues were accumulated. Thus, maintaining solvency was no longer the overarching priority of monetary policy

³ The above paragraphs were written using Werner’s chapter on monetary policy (ANTAL et al., 1990:27–35) supplementing his ideas and sometimes wording with later events.

⁴ Werner expressed his worries at a private talk - alas, I cannot ask for his approval to quote his sentence.

and achieving price stability became the key objective. A modern state security market was established where state debt could be effectively managed. Forint, the national currency drew near to ERM-II due to the one-off devaluations, the crawling peg and floating the exchange rate in a narrow band (disregarding the unfortunate episode of the so termed re-alignment of the band). Step by step, the convertibility of HUF was established. The evolutionary changes and the growing impact of interest parity (a shift in the centre of gravity of the trilemma) enforced gradual amendments of the means of monetary policy as well. Limiting the growth of foreign exchange reserves (at a satisfactory level) provided a cap on interest rates regulating credit demand.

Establishing the modern institutions of a market economy contributed to clarity and, through it, to business trust among the economic actors, a factor that, in addition to its other beneficiary effects, promoted monetary transmission. Using privatisation revenues to reduce public debt did not only mitigate budgetary crowding-out” but also improved transparency, as the so-called “zerocoupon stock” (state debt automatically generated to finance accumulated loss on the open FX positions of the central bank) was eliminated and the interest earned on government debt was solely determined by the demand of the financial market. That was the end of the process of debiting transformation losses to the state that started with loan consolidation.

Werner had been a witness of the birth of modern Hungarian monetary policy, responsible for economic political goals; and he was an active participant of its first two decades. Monetary policy would have been different without him. He left his mark on Hungarian monetary policy instruments and contributed to its success. It is a pity he did not live long enough to see its climax: the retirement of the forint.

REFERENCES

- ÁBEL, I. – RIECKE, W. (1980): Árfolyam, nyereségérdekeltség és külkereskedelmi hatékonyság [Rate of exchange, profit motive and foreign trade efficiency]. *Közgazdasági Szemle*, XXVII(2), 142–155.
- ANTAL, L. – CSILLIK, P. – POSTÁNÉ VELLAI, G. – RIECKE, W. – SZILI, P. – TÉTÉNYI, T. – VÉRTES, A. (1990): *Gazdaságpolitika, gazdasági folyamatok (1987–1989)* [Economic policy, economic processes]. *Tőzsdeelméleti tanulmányok*, Vol. 7, Budapest: Magyar Tőzsdealapítvány.
- MAGAS, I. (2018): Financial Adjustment in Small, Open Economies in Light of the “Impossible Trinity” Trilemma. *Financial and Economic Review*, 17(1), 5–33. http://epa.oszk.hu/02700/02758/00015/pdf/EPA02758_financial_economic_review_2018_1_005-033.pdf.

A PIONEER ON ROUTE TO THE EURO

Csaba László

I first met Werner Riecke at the Ministry of Finance towards the end of the '80s. I was a young economist working on a specific task being part of the tax reform in the agrarian sector. You could hear on the grapevine that Werner was a pillar of the team working on the tax reform.

At the time, the tax reform was the most important and most exciting task in “the house”. The team worked long hours, they were responsible for something that may have been the most serious reform in Hungarian economy since the 1968 reform. Working for them meant real prestige. We came into closer contact in 1989. It was a true example of the butterfly effect. A new man, *Ernö Kemenes* was appointed as head of the National Planning Office. *György Surányi* was to take over his position as undersecretary. Werner took Surányi's position at the Prime Minister's Office and I was appointed to take over his vacant position at the Secretariat of the Budget Reform Committee as of 1 September as head of department and deputy to *Mihály Kupa*.

As is the rule in every orderly administration, there were handover-acceptance meetings. I was quite worried how I could meet such a challenge at the age of 27. Fortunately, Werner must have recognised my terror and came to my rescue: “*Don't worry, it'll be all right, there will be no problems.*” He explained that, as it had been customary in this country, there was some discrepancy between our positions and our actual to-dos. And the Committee, as such, had not been operating for some time. The non-operational Committee was indeed water under the bridge in the remaining time, but the Secretariat operated smoothly.

“In return, you have to produce different concept documents. Most important is to prepare a new law on the state budget that will meet the requirements of a new multi-party democracy.” And that is exactly what happened. Werner's workplace was in the Parliament building where he could use his expertise much better until Communism fell.

We only saw each other from afar for some years. In my capacity as the head of the budget area, we had regular meetings with the National Bank (MNB) beginning from 1995. Despite our good personal relationship, there were sharp debates between the Ministry of Finance and MNB. Werner played a key role in them. He

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was not the most passionate participant, and he was not the one who talked the most. Still, when he was about to speak, there was an expectant silence. He could sum up the essence of a debate and highlighted new points we had not noticed earlier. Questions we had been arguing about passionately for half an hour or an hour suddenly became clear and all details fell into place. Although his intimacy with figures and the maths of economics was public knowledge, he could explain to us, simple mortals, very complex macroeconomic issues in a clear, logical and structured manner.

I left public administration for a few years in 1999, but my relationship with Werner was unbroken until we resumed work together in 2002. That was a different period. There were many more conflicts between the two institutions, but Werner continued to be the same. A real professional. At the time, there was much talk about a strategy and possible schedule of joining the Eurozone. Werner took part in those debates most of the times, while he was clearly less interested in other, over-politicised fruitless debates. One of the most important products of that period was that both the Government and the National Bank, despite their professional and sometimes political controversies, jointly adopted the strategy and schedule of joining the Eurozone. Werner played a key part in that both from a professional and a human perspective. He was the last one to be blamed because nothing of those plans had come true and the Euro was not introduced in 2008. Still, I think the country could have addressed the 2008 financial crisis much better if it had been.

We drifted apart again after 2004 although we met at different events and were happy to see each other. However, we have been talking more often about current issues of economic policy and returned to square one over the past few years. Werner wrote another document on the strategy of joining the Eurozone. It is a concise, well-structured and logical strategy. I wonder when the country can have a government and a national bank willing to implement it. Werner knew he was seriously ill, but he was still eager to deal with issues with a time frame of five to eight years at least. At a Zoom talk – because of Covid – he sadly told me he had had to return home from Kurdistan earlier than planned due to an illness. He was obviously sorry he had to leave a professional task unfinished. But the way he spoke about it did not make me suspicious, and then the shocking news hit us a couple of months later.

I do not know how many years or decades will pass before we can make preparations for the Euro, but I am sure we will miss Werner a lot at those meetings. Hopefully, we shall join one day. Then, the future Minister of Finance and the Governor of the National Bank can inaugurate a plaque remembering the experts who made the most useful contribution. It is clear to me the name of Werner Riecke must be among them.

A JOURNEY IN TIME ABOUT DEBT FINANCING¹

*Péter Bihari*²

I haven't been a very close friend of Werner. Our acquaintance started during our years at Rajk College (in the mid-70s) and continued in sporadic informal conversations over the last decades. Conversation was dropped and picked up again. At times we were in complete accord and at times we debated fiercely. I was honoured that it was Werner who reached out to me repeatedly after pauses. Our last conversations took place in spring 2020. Then, we were thinking together about possible policy responses to the inevitable economic recession. This is a recollection of those conversations two years ago. A lot has changed since then, and one can see many things more clearly. What seemed to be rational based on the available information and state of affairs back then may prove to be harmful under the current circumstances. The reader is therefore requested to look at these lines as if we were in the spring of 2020 and form an opinion based on the information that was actually available at that time.

Let me list a few highlights of our conversations' immediate historical context:

- 4 March 2020 The first COVID case is recorded in Hungary
- 11 March 2020 Declaration of a state of danger, adoption of a special legal order
- 16 March 2020 Schools are closed, restrictions on the opening hours of shops and restaurants
- 27 March 2020 Introduction of lockdown measures
- 7 April 2020 The Government announces a comprehensive crisis management action plan
- 10 April 2020 Declaration of the 'fifteen' in response to the Government's action plan

Upon drafting the declaration of the 'fifteen', there was strong consensus about a number of questions. It was obvious for everyone that a simultaneously appearing demand and supply shock would give rise to a massive economic recession. With shops closed, trucks stuck at the borders, jobs lost, etc. there will be a 5 or

1 This paper is an edited version of the presentation held at the Werner Riecke Memorial Conference at László Rajk College on 30 September 2021.

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10 per cent downturn in 2020 – so were we speculating. We also agreed that the budget deficit would be well above the target due to the personal income tax, VAT and corporate tax revenues lost on the crisis. It was also agreed that budget expenditure should be increased to alleviate the crisis, as a reallocation of expenditure alone could not sufficiently compensate for loss of demand. But what level of deficit would still be affordable? And how could it be financed? There was no consensus on that. A discussion was started by the central bank faction of the Fifteen, with Werner, *Júlia Király*, honorary member *Judit Neményi*, *Gábor Oblath* and myself – without any conclusion. I continued it with Werner separately, but we could not arrive at a conclusion either.

Werner was cautious and called for prudence. He started from the assumption that the affordable level of deficit should be tailored to the financing capacities of domestic income holders. Deficit exceeding that capacity would lead to external indebtedness. He tried to estimate the savings potential of households and corporations based on 2019 financial accounts. He concluded that the financing needs of the general government and the corporate sectors could be met at a deficit ratio increase of about 2 percentage points; entirely foreign funds should be raised for any deficit in excess of that. I proposed that forced saving³ and investments put on hold due to the crisis would allow for a substantial savings surplus in both sectors, and therefore, a higher deficit. I had reservations about foreign indebtedness not because of the growing exposure it would entail, but its feasibility. Every country is in the same boat, major aid packages are announced, and the funds needed for those packages are raised on the international financial markets. We were up against competition, and I feared that Hungary would not be able to secure external funds at all, or only at unreasonable prices.

I believed that additional budget expenditure was necessary, but the higher deficit it would give rise to could not be financed from the market. Now, if households' savings are insufficient and foreign funds are not accessible, another way to consider is central bank financing of the deficit. Additional expenditure to defuse the crisis seemed top priority to me. I considered that the consequent increased deficit could be financed by the central bank by crediting the State's account or by purchasing zero-coupon perpetual government bonds. Werner did not approve of my proposal. We agreed that no extra funds could be acquired for the budget from secondary market purchases, as the consideration for the bonds was already

3 Despite the substantial negative revenue shock, the net financing capacity of households grew from the previous 5% to 6–6.5% of the GDP by early 2020. That growth was equally due to the loan repayment moratorium, purchases not made due to the closing of shops and lockdown measures, and to prudence because of the crisis.

collected upon initial offering. The main reason for secondary purchases is to put downward pressure on sovereign debt market yields, keep interest costs on sovereign debt low and stimulate the economy through low cost of capital.

Werner argued that even though crediting the State's account would allow for higher public expenditure, at the end of the day, balance between the sectors would have to be maintained. Consequently, the extra funds from the central bank may indeed result in an increased financing capacity of households and corporations, but if they don't, we would be left with foreign indebtedness, and more importantly, inflation. I called attention to the fact that crises discourage borrowing, therefore, the money multiplier decreases, and as low rates of interest encourage cash holding, the velocity of money decreases. On that basis, I concluded that increasing the money supply by monetary financing would not necessarily drive up inflation. Especially when there was missing demand and high capacity surpluses in the economy due to the crisis. And if the transformation of increased retail savings into consumption would begin sometime in the future, the resulting inflationary pressures could be addressed by standard central bank instruments.

The deficit to GDP ratio was 9% in 2020, due mostly to income lost on the crisis and not to additional expenditure. No definitive crisis mitigation took place. Accordingly, in Q2 2020, GDP contracted by 13% year over year. Yet, higher deficit did not come hand in hand with either higher inflation or increased external indebtedness. It seems that both of us had been wrong. Contrary to Werner's expectations, inflation did not go up (then) despite the higher deficit (since it was due mainly to income lost and not to expenditure increased to boost demand), and contrary to my expectations, the State raised funds on the domestic sovereign debt market to cover the deficit. But could that actually be considered market funding? In early May 2020, the central bank of Hungary MNB launched a government securities purchase programme and almost at the same time offered commercial banks a five-year fixed interest rate lending facility available at base rate. Using that lending facility, commercial banks purchased government bonds for financing the deficit at the primary markets and sold them next day to the central bank. Commercial banks acted as straw buyers for the central bank, which was actually financing the budget. Until September 2021, MNB purchased government securities of HUF 3,000 bn and provided HUF 2,600 bn in five-year lending facilities. It was like an ATM, where a loan taken at base rate or below (0.75% to 0.9%) could be exchanged for government bonds of a 1.5% yield. And they made no secret of it. As then Deputy Governor *Márton Nagy* said in an interview 'credit institutions may use these funds for retail and corporate loans, but also for purchasing government securities.' Over the 1.5 years between spring 2020 and autumn 2021, commercial banks seized that arbitrage opportunity and

used just a fraction of the loan taken up to increase corporate lending⁴. Instead of financing the real economy, the MNB funds were an indirect means of financing the budget deficit. As I see it, that is monetary financing just as much as it would have been if the central bank had bought government securities directly.

In spring 2020, I found helicopter money the most efficient means to tackle the demand crisis.⁵ I was of the view that expanding the monetary base would not lead to increasing inflation due to the then current macro environment. In that environment of a decreasing money multiplier, decreasing velocity of money and low baseline inflation, the inflationary risks of monetary financing were moderate. And the benefits were more pronounced. Provision of money based on citizenship has a countercyclical effect as it blocks the decline of demand and offers at least partial compensation to those suffering the heaviest loss of earnings. As opposed to this, upon announcing the great aid package, the Prime Minister of Hungary called a 3% budget deficit a red line not to cross in a radio interview.⁶ The aid package – the greatest in Hungarian economic history – did little to hinder the fall of demand. And now that an above 6% growth rate would allow it, very few substantive measures are taken to curb the high level of deficit. On the contrary, in autumn 2021 and the first months of 2022, consumer demand in the household sector – which is returning to normal anyway – is fuelled by extraordinary amounts of budget expenditure. It seems that the Government pursues a policy of tolerance for high levels of deficit when times are good, but switches to zero-tolerance in times of crises. That was and continues to be a procyclical policy. The concerns Werner had in spring 2020 came to materialise in autumn 2021 when growing deficit – aggravated by other factors – resulted in inflation. In autumn 2021, there is no macroeconomic rationale behind the Government handing out money similar to helicopter money. The economy is growing fast, wages are increasing vigorously, there is no crisis, and there is no widespread revenue shock the gravity of which would need to be alleviated. What would have been instrumental in spring 2020 is extremely harmful in autumn 2021 as it will set the newly elected government on an extremely hard road to budget correction.

4 Corporate lending in this period increased by HUF 550 bn. The increment in the preceding 1.5 years period (between autumn 2018 and spring 2020) had been HUF 1,380 bn.

5 See PÉTER BIHARI (2020): Helikopterpénz kell Magyarországra a koronavírus ellen [Hungary needs helicopter money to tackle the Corona virus], www.portfolio.hu, 30 March 2020. <https://www.portfolio.hu/gazdasag/20200330/helikopterpenz-kell-magyarorszagra-a-koronavirus-ellen-422750>.

6 On radio station *Kossuth Rádió* on 10 April 2020.

A SOFT-SPOKEN GERMAN HUNGARIAN

In memory of Werner Riecke

Lajos Bokros¹

I have known him since we were both students of the same class at the renown former Karl Marx University of Economic Science. At the time, it was one of the best institutes of tertiary education in economics in the Eastern Block, attracting students even from East Germany. Although learning the Hungarian language required enormous effort from foreign students coming from the world over, Werner was one of the very few who got noticed already in his first year at university for his exceptional ability and diligence. He learned to speak Hungarian brilliantly, soon both telling and getting Hungarian jokes. Language was no longer a barrier to him, but an aid in becoming one of the best of his profession.

Werner and I were colleagues both at the Financial Research Institute and at the central bank of Hungary Magyar Nemzeti Bank. The former was before the transition, the latter partly after it. He stood out of native economists at both workplaces with his careful accuracy, sophisticated analytical skills, recognition of relations between theory and practice and ability to usefully combine the two. He researched several topics that were novelties at the time (exchange rate policy, balance of payments, etc.). He authored outstanding papers, official notes, studies, volumes, and edited several publications. He was noticed by the administration preparing moderate reforms, and later by all the administrations managing the transition to a market economy, regardless of political affiliation. Although Werner made an effort to take a technocrat stance in analysing facts and making recommendations, he was open about being a deeply committed humanist and democrat.

Even though he was automatically granted German citizenship after the reunification of Germany, he never thought of leaving his chosen homeland. That's where he had settled, started his own family and bought a house. He made numerous friends in this new homeland, which he served honestly and to the highest standards with everything he had done. He was up for challenges and therefore

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willingly accepted IMF commissions, helping from then on not only Hungary but also mainly poorer or less fortunate post-Soviet countries.

He passed away too soon. I am one of the people who will always remember him with love and commendation.

EXCHANGE RATES AND DEBT MANAGEMENT – MY PROFESSIONAL RECOLLECTIONS OF WERNER RIECKE

*Gábor Oblath*¹

My first personal encounter with Werner Riecke – and his fellow author, *István Ábel* – was preceded by a first encounter of a professional focus. In his memory, I will recall that intellectual encounter first, and then look back on how our views on external debt management differed – and eventually converged. Although I have many other memories of Werner, as we were working together for many years in the Monetary Council of the central bank of Hungary, these two are the most vivid.

FOREIGN TRADE PRICE COEFFICIENT VS RATE OF EXCHANGE

In 1980, an essential paper was published in Volume XXVII Issue 2 of the *Közgazdasági Szemle* [Economic Review] with the title ‘*Exchange rate, enterprise profit-orientation and efficiency in foreign trade*’ [Árfolyam, nyereségérdekeltség és külkereskedelmi hatékonyság]. The authors were two young economists of my age, *István Ábel* and *Werner Riecke*. I did not know the authors personally but got extremely curious upon seeing that title as I was researching the exact same topic at KOPINT back then. It was nice to read the first footnote of the paper which was as follows: ‘After preparing our manuscript, a paper by *István Lakos* and *Gábor Oblath* [...] was published, which often follows a similar line of thought as our paper.’

Our paper ‘*Rate of exchange and the foreign trade price coefficient*’ [A valutaárfolyam és a külkereskedelmi árszorzó], co-authored with *István Lakos*, was published a few months before in Issue 6 of 1979 of the *Külgazdaság* [External Economic Bulletin], and indeed, the ideas it contained were in many respects similar to those in *István Ábel*’s and *Werner*’s paper. We also tried to make our point with reference to the dispute recurring from the mid-1960s on about the average rate of exchange and the marginal rate of exchange. Both they and us argued that the so called ‘average rate of exchange’, i.e. a rate of exchange aligned to the average

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costs for exporters to produce a unit of foreign exchange and the related system of subsidies, is not reasonable from an economic point of view and results in loss of efficiency. And as they, we also aimed at using novel concepts and a language more suitable for illuminating the relevant economic relationships.

Upon reading their paper, I had to admit with more than a tinge of envy that we were bested by the Ábel–Riecke duo in terms of approach and choice of concepts. We argued fundamentally verbally for the same ideas proposed by István and Werner. By contrast, they offered a graphic, intuitive and more easily understandable way of explaining the same meaning we were trying to convey to readers in lengthy paragraphs.

Re-reading that article after 42 years, I still find it a flawless piece of work. It had an importance not only for economic governance at the time (or would have, had it received due attention), but also for all developing countries having a *de facto* multiple exchange rate regime in place (which, in fact, was widespread in that period). Let me highlight two fundamental losses of efficiency, which are easily conceivable based on the authors' figures.

- A foreign trade price coefficient, determined at a level substantially lower than the “equilibrium” (or, as it was known, marginal rate of exchange) in alignment with the average costs of producing a unit of foreign exchange, renders exports slightly less efficient than that price coefficient unprofitable, but enables (even expressly supports) exports substantially less efficient.
- *De facto* export rates higher than import rates may render even exports of minimal or negative domestic value added profitable. In the extreme, this would have the consequence that the growth of certain exports activities paradoxically deteriorates the foreign trade balance.

I believe that the paper by István and Werner published in 1980 not only put the domestic, fairly parochial – and based on the standard concepts of economics, hardly understandable – dispute about the average vs marginal rate of exchange into an appropriate conceptual framework, but also conveyed important international messages. *Paul Marer* tried to make these messages available to a wider audience. Recognising the importance of the paper, he provided an insightful analysis of its most important results in the 1981 issue of the so-called ‘Green Book’, a yearly publication on Eastern Europe for the U.S. Congress.

EXTERNAL DEBT AND DEBT MANAGEMENT

The other decisive professional recollection I have of Werner brings back the topics and atmosphere of an economic conference held two decades later, in 1992, by the Centre for Economic Policy Research (CEPR) in London. Both Werner and I had a presentation at that conference on Hungary's external debt. At the time, it was a serious issue whether servicing Hungary's inherited debt, exceptionally high as a proportion of GDP in a Central European context, would not drain Hungary's economic resources to an extent that prevents putting its economy on a growth path. Many considered it an insupportable burden, and many others – both in Hungary and abroad – advocated that the Hungarian economy has no chance to recover from the grave recession of 1990–1991 without 'debt relief' (re-scheduling, write-off, etc.).

Presentations and contributions at the conference appeared in writing in the volume *Hungary: An economy in transition*, published in 1993 (eds. Székely P., István and Newbery, David M., Cambridge University Press, CEPR). That volume provides me a point of reference, allowing me to compare my memories with the published texts.

Both my memories and a re-examination of our relevant papers in the volume clearly show that the views Werner and I had at the time on managing external debt were very far apart. Using a monetary approach to the balance of payments, applied to the Hungarian economy, Werner proposed that it would be sufficient to keep new domestic lending below the rate of increase of domestic demand for money. He believed back then that this could ensure that the amount of currency needed for Hungary's debt service would be available, since economic agents would have to satisfy their demand for money partly from abroad (e.g. in the form of an export surplus), which necessarily leads to availability of the currency needed for part of the debt service.

I did not agree with his argument. As I saw it, there was a need for two types of transfers simultaneously in order to pay Hungary's external debt. First, a redistribution of resources from the private to the public sector. Second, a real transfer abroad, i.e. an export surplus should be realised by the economy as a whole. Back then, at a time of decreasing production, that dual transfer seemed an extremely hard task, and therefore it was just logical for *Richard Portes*, one of the discussants of our presentations, to conclude that there was no point in struggling, and Hungary should apply for debt relief.

At that point, Werner and I were on the very same page. Although our views differed in many respects, we were both convinced that any gesture implying that Hungary is not willing to service its foreign debt would do serious harm. Werner had more confidence in monetary relations, while I considered the supplementary

source of finance provided by rising FDI inflow to be the potential solution. Notwithstanding, we both believed that not meeting Hungary's debt service would only harm the country, without any substantial benefits. As far as I can remember, we did not succeed in convincing our foreign 'benefactors', but that does not matter anyway.

What does matter is that the *Antall* administration resisted diverse pressures from abroad and, most importantly, from within borders, and chose not to apply for debt rescheduling, which was always followed by grave recession, as shown by international experience. Werner and I strived jointly to avert that danger of recession by putting forward arguments on a professional footing.

The untimely death of Werner Riecke is an aching loss for the community of Hungarian economists. His wisdom, valuable insights and gentle irony remain in the memories of all who knew and loved him.