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Impossibility Trilemmas in Hungarian Economic History (1867–1938)

SUMMARY: This study is intended to demonstrate how Schoenmaker's financial trilemma and the Mundell–Fleming monetary trilemma took hold in Hungarian economic history between 1867 and 1938 – an era divided into five distinct periods –; in other words, which factors enjoyed priority over others in the individual periods. We also intend to detect the existence of any trade-off between the two trilemmas and to pinpoint the area in which it took place, while also attempting to identify shifts within the individual trilemmas. Each element of the trilemmas is presented separately, including the interaction between them. According to our results, a trade-off could be observed within the monetary trilemma during the years of consolidation under the Bethlen government and in the period of the economic crisis, while it was during the Bethlen consolidation that there was a trade-off between the trilemmas.¹

KEYWORDS: economic history, monetary trilemma, financial trilemma

JEL CODES: F30, G28, N23, N24

We compare episodes of the impossibility trilemma – Schoenmaker's financial trilemma and the Mundell–Fleming monetary trilemma – in five prominent periods in Hungarian economic history, primarily as they relate to the evolution of financial supervision. It was in the first period (1867–1899) that early initiatives and proposals were formulated about setting up a system of financial supervision. This period falls within the second half of the operation of the Austrian National Bank: from the 1867 Compromise to 1878. Next, we give an overview of the period spanning from the establishment of the Austrian National Bank to 1899. The gold korona was introduced at the beginning of the second period (1900), with a perceivable effect on

the stability of the exchange rate. This period ends with the outbreak of World War I (1914). Although these years had already seen the establishment of the predecessors of supervisory organisations, there was no independent and integrated supervisory body in Hungary at the time. We describe these two periods from the angle of the monetary trilemma both within the Monarchy and in relation to the rest of the countries, as the elements of the monetary trilemma manifested themselves differently in the countries concerned. The third part covers the organisation and initial operation of the independent Hungarian financial oversight (1915–1924). Prominent events of the era include the establishment of the Pénzüzeteti Központ (Financial Institutions Centre), the destabilisation and subsequent stabilisation of the korona and the foundation of the independent Hungarian central bank,

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the Magyar Nemzeti Bank (MNB). The fourth period (1925–1930) is characterised by the strengthening of financial oversight with the expansion of its functions and the commencement of the operation of the Magyar Nemzeti Bank. The fifth period (1931–1938) comprises the spillover of the global economic crisis to Hungary and the aftermath of the crisis up until the last year of peace, 1938.

Based on the assumption of an open economy, the Mundell–Fleming monetary trilemma model argues that an economy cannot simultaneously maintain currency stability (a fixed exchange rate), free capital movement and an independent (national) monetary policy. Pursuing any two of these options will necessarily suppress the third. Schoenmaker’s financial trilemma states that financial stability, financial integration and national supervisory and regulatory policies are incompatible; any two of the three can be combined at a time, but not all three. The trilemmas described above are not limited to our time; they can be also interpreted in the context of economic history; issues related to the trilemmas and the trade-offs associated with their elements had manifested themselves before. It hampers the assessment that currently there is no consensus about the definition of financial stability; one thing, however, is certain: it is closely related to systemic risk which, if it materialises, may trigger a loss of economic value or confidence among numerous financial participants with significant adverse effects on the real economy (Schoenmaker, 2011). In any event, there is no doubt that it is a public good, as financial stability “*is a state in which the financial system, including key financial markets and financial institutions, is capable of withstanding economic shocks and can fulfil its key functions smoothly, i.e. intermediating financial resources, managing financial risks and processing payment transactions*” (MNB, 2016:3); pursuing it, therefore, is of key significance. In our study, the achieve-

ment of financial integration primarily means financial embeddedness, access to credit and the appearance of foreign interests, while independent supervisory and monetary policy means that these factors are shaped by the nation, independent of the rest of the world. Obviously, when facing the two trilemmas, economic policy should opt for solutions that consider both short-term and long-term goals and offer such optimal (acceptable) compromises between the individual goals that can be achieved over the short run while contributing to the sustainability of the economy in the long run. The factors of the trilemmas are not independent of one another; for example, in the case of the monetary trilemma, monetary policy affects financial stability: maintaining inflation at low levels for a sustained period contributes to minimising the instability of the financial institutional system. At the same time, financial stability also influences monetary policy, as a stable financial institutional environment contributes to a more efficient implementation of monetary policy (Benyovszki–Nagy, 2013). In the next chapter, we describe how the individual elements of the financial and monetary trilemmas manifested themselves in specific periods, including the trade-offs within and between the trilemmas. The results of our analysis are summed up in *Table 1*.

■ MANIFESTATION OF THE ELEMENTS OF THE FINANCIAL AND MONETARY TRILEMMAS UPON THE FORMULATION OF THE PROPOSALS AND INITIATIVES FOR ORGANISING FINANCIAL SUPERVISION IN THE PERIOD OF THE AUSTRIAN-VALUE FORINT CURRENCY SYSTEM (1867–1899)

The first proposals and initiatives about arrangements for domestic financial supervision were born at a time when a regulatory union² had yet to be established against the monetary union in place within the Monarchy; consequently, the independence of the monetary policy of Hungary was not in place and the independence of its supervisory po-

Table 1

ACHIEVEMENT OF THE INDIVIDUAL ELEMENTS OF THE FINANCIAL AND MONETARY TRILEMMA BETWEEN 1867 AND 1938 IN HUNGARY

Periods	Elements of the financial trilemma			Elements of the monetary trilemma			
	Independent financial supervision	Financial stability	Financial integration	Currency stability	Free capital movement	Independent monetary policy	
1867–1899	*	–	X	–	X	Within the Monarchy	Outside of the Monarchy
						–	X
1900–1914	*	–	X	X	X	Within the Monarchy	Outside of the Monarchy
						–	–
1915–1924	X	–	–	–	–		X
1925–1930	X	(X)	X	X	X		(X)
1931–1938	X	(X)	–	X	–		X

* As only supervisory predecessor organisations operated in this period, the independence of supervision is impertinent

X The trilemma element was achieved

(X) The trilemma element was achieved with limitations

– The trilemma element was not achieved

Source: own editing

licy was therefore impertinent. Despite early initiatives for the organisation of financial supervision, initial proposals in that regard proved to be unsuccessful. Although, even before the Compromise, proposals urging for national autonomy had come forth as early as 1860 in numerous areas of the economy, the profound changes in constitutional law after the Compromise failed to pave the way for independent financial supervision (Kautz, 1868). This reflected, among other factors, a resistance on the part of financial institutions, considerable – often unfounded – confidence in the existing financial institutions, and a lack of consensus with respect to the operation of financial oversight. In this era, there were two factors that exerted an adverse

effect on financial stability. On the one hand, although the main task of the imperial representative body was to provide the cash required for the government’s operation, in the lack of sufficient instruments and room for policy manoeuvre, policymakers primarily resorted to increasing the quantity of money (government notes) to address the arising crises and to finance the wars (Somogyi, 1976). On the other hand, mainly because of the wars waged and the economic policy implemented, by the second half of the 19th century sizeable public debt³ had built up owing to the bonds issued in foreign markets (in the mid-1860s, debt repayment accounted for 45–50 per cent of net revenues), which not only increased the external vulnerability of the country, but

also entailed a severe exchange rate risk as the country's resilience to the economic shocks it frequently had to face weakened. With respect to financial stability, we should take mention of the Hungarian Credit Aid Society established in 1873 in order to facilitate the intermediation of financial resources, which, following its liquidation, was replaced by the First National Savings Bank of Pest in 1874. Until the early 1890s, the latter acted as an intermediary between the Austrian National Bank and certain rural credit institutions under a rediscount facility agreement, assisting in the loan organising activity of the central bank (Kövér, 1993b). Risk management was not entirely effective either as speculative endeavours were rampant in the Gründerzeit period from the second half of the 1860s. Against this background, financial institutions flourished excessively and at times lacked any economic justification (Alföldi, 1928). Speculative activities were retrenched considerably by the currency regulation of 1892, when foundations for speculative purposes diminished and financial institutions "returned" to more traditional operations, with loans and debentures gaining an increasing share among their instruments. Throughout the period of 1867–1899, the full financial integration prevailing in the Monarchy fostered the free movement of capital, which was also supported by the use of the single currency (Scott, 1982). Appearances in European (e.g. French, German) money markets mark the onset of financial integration outside the boundaries of the Monarchy.

With regard to the monetary trilemma, the free movement of capital was ensured both before and after the turn of the century. Owing to the accumulation of a substantial amount of debt – not least because of the wars – and the related outflows of income, the country can be described as an open economy at the time. After the Compromise, the Hungarian central

budget was mired in progressively increasing deficit, which – in the lack of internal funds – could have been financed by issuing bonds abroad. This, however, proved to be increasingly difficult because of the instability of the currency. In the second half of the 1870s, foreign capital inflows typically dried up in the aftermath of the 1873 stock market crash and as a result of the failure to stabilise the currency before 1892. Since most European states had already adopted the gold standard by the second half of the 1870s, the volatility of the Monarchy's currency relative to foreign currencies and the heightened exchange rate risk associated with business transactions resulted in considerable uncertainty, which was detrimental to our foreign capital involvements (Kovács, 2005) and to the financing of the Monarchy. After the 1867 Compromise, the independence of monetary policy was ensured both in relation to the Monarchy and to the rest of the world. Even the economic crises of subsequent years could not put considerable pressure on the level of the central bank's discount rate which, from 1866, remained within the range of 4–5 per cent until the period of the turn of the century (Mecenseffy, 1896 and Egyed, 2007). With respect to monetary policy independence within the Monarchy, it can be said that neither the Austrian National Bank nor the Austro-Hungarian Bank pursued an independent Hungarian interest rate policy. In the period of the Austrian National Bank – between 1867 and 1899 – it was driven by Austrian interests, while in the period of the Austro-Hungarian Bank, uniform interest rate regulations did not permit the formulation of an independent interest rate policy either for the Austrian or for the Hungarian economy, even though the two economies had diverging features. From 1876, in addition to the need to establish an independent Hungarian central bank, the Hungarian government also took a stand on creating a so-called car-

tel bank (subsequently, central bank cartel), but the implementation of this initiative – as was the case with the foundation of an independent central bank – met with resistance on the part of the Austrian National Bank (Pethő, 1925). It is important to mention this proposal in the context of the monetary trilemma because, had it been implemented, the independence of monetary policy could have been achieved within the Monarchy. As regards currency stability, the silver standard prevailing in the Habsburg Empire for centuries struggled with difficulties from as early as the second half of the 19th century, which is closely related to the increasing indebtedness of the general government. For the same reason, it was in this period that a parallel currency regime evolved (paper money and silver coins), which was characterised by the continuous presence of premium and discount. Since this fluctuation was a constant source of uncertainty for market participants, numerous initiatives were adopted with a view to consolidating the financial system, such as the conclusion of the Vienna Agreement and the introduction of the Austrian-value forint currency. These attempts, however, were thwarted by military actions (including the Italo-Austrian and the Austro-Prussian wars), while changes in gold and silver production threw into crisis the European silver standard system itself. The adoption of the gold standard was on the agenda in the Monarchy as well, thus the minting of gold forint coins commenced from 1870, but there was no legal obligation to accept them (Kovács, 2005). The limit on banknote issuance stipulated by Article 12 of the 1862 Bank Act was breached several times, for instance, in the period of the 1866 Austro-Prussian war and the Vienna stock market crash in 1873 (Beöthy, 1875), in relation to which the central bank even brought a claim for indemnification (Kövé, 1993a). As a result of increased demand for

currency issues in relation to external circumstances, the central bank failed to meet the metal coverage requirement, and could not ensure the exchange of banknotes for coins. In the Monarchy, this had inflationary consequences and entailed the instability of the currency in spite of the fact that consultations had taken place as early as 1861 about the need to ensure the stability of the currency and its possible methods (e.g. metal coverage regulation, quota system). As a result of the deflationary financial policy, banknote circulation fell by 25 per cent between 1862 and 1865, with a parallel, nearly HUF 20 million increase in the metal reserves (Jirkovsky, 1940 and Lónyay, 1875). With respect to the rest of the world, the Monarchy recorded a significant foreign trade deficit during this period, and although it managed to prevent the further depreciation of the exchange rate through the exports of crops (with Germany and Switzerland being the main export markets), this resulted – once again – in liquidity abundance. The capital inflow improved the total balance of payments somewhat, and precious metal inflows could have provided the means for raising the central bank base rate (provided that the metal coins flew to market participants and the demand for banknotes declined), which could have contributed to achieving the external stability of the currency. The temporary stabilisation of the currency's intrinsic value fostered an upswing in foreign direct investment, resulting in the establishment of the Angol-Magyar Bank and the Franko-Magyar Bank, as well as numerous transport and industrial companies (e.g. the Magyar-Schweiczi Gyártársulat Pesten Rt.) that were founded with the intermediation of foreign capital. However, stabilisation attempts were adversely affected by the Treaty of Vienna concluding the Italo-Austrian war in 1866 (Juhász, 1941), and thwarted irrevocably by the temporary currency crisis of

1869 (also referred to as “the small crisis”), which triggered disruptions even in payment transactions (Juhász, 1939).

Thus, of the elements of the two trilemmas, financial integration and free capital movement materialised in the period of 1867–1899, and even the independence of monetary policy asserted itself in the relationship between the Monarchy and the rest of the world. In the absence of a substantive supervisory body, the independence of financial oversight was impertinent.

■ **MANIFESTATION OF THE ELEMENTS OF THE FINANCIAL AND MONETARY TRILEMMAS UPON THE ESTABLISHMENT OF SUPERVISORY PREDECESSOR ORGANISATIONS IN THE PERIOD OF THE GOLD KORONA CURRENCY SYSTEM (1900–1914)**

In terms of financial oversight, although a number of organisations with supervisory functions were established during the years of the turn of the century – such as the Central Mortgage Bank of Hungarian Savings Banks (Magyar Takarékpénztárak Központi Jelzálogbankja) or the National Association of Hungarian Financial Institutions (Magyarországi Pénzintézetek Országos Szövetsége) –, independence was not a meaningful category in their case either, as they can only be considered, based on their activity, as predecessor organisations (the financial supervision performed by these institutions was not binding and financial oversight was not a prominent part of their activity). Although the moderation of the speculative activity as observed in the early 1890s benefited financial stability, stability was not achieved yet. The effects of the stock market crash of 1895 and the European currency crisis that followed 1907 were indicative of low resilience to economic shocks (Alföldi, 1928). Consistently with the above, financial integration and free capital movement were still ensured in this period, although the 1905

Moroccan crisis and the crash of the New York Stock Exchange in 1907 demonstrated the difficulties of financing.

As a result of the 1907 stock market crash, however, monetary policy lost its previous independence: meeting the Monarchy’s international financial obligations was extremely problematic as foreign funding dwindled in the prevailing high interest rate environment, which eventually necessitated a series of interest increases (from 4.5 per cent to 6 per cent) in the same year (Fellner, 1911). Thus the interest rate policy was shaped by external circumstances rather than internal, national ones (e.g. the metal coverage ratio). The currency was stabilised by the new gold korona currency system adopted in 1892 (which effectively came into force in 1900 only) (also referred to as the “limping gold standard”²⁴) (László, 2002). However, surging prices resulting from expensive crop imports necessitated by insufficient domestic crop yields triggered another increase in banknote circulation in 1909, which continued to edge up further in the years to follow, owing to the expansion of the branch network of credit institutions, the contraction in foreign bond markets in the aftermath of the New York stock exchange crash, the political uncertainty caused by the 1912–1913 Balkan wars and the military mobilisation associated with World War I (Popovics, 1926). Implicitly, this pointed to instability, although from an external perspective the stability of the currency was ensured until the outbreak of World War I.

Therefore, financial integration and free capital movement were achieved, as in previous years, in the period of 1900–1914 as well; at the same time, however, the external independence of monetary policy was impaired by the 1907 stock market crash. Nevertheless, the stability of the currency was still ensured by the adoption of the gold korona system. The independence of financial supervision

was still not achieved for the reasons described above and similarly, financial stability did not take hold either.

■ IMPOSSIBILITY TRILEMMAS IN THE PERIOD MARKED BY THE ESTABLISHMENT OF AN INDEPENDENT, INTEGRATED FINANCIAL SUPERVISION AND THE FALTERING OF THE GOLD STANDARD (1915–1924)

The first domestic integrated supervisory body was set up in 1916. This is the year of the foundation of the Pénzintézeti Központ, the activities of which focused primarily on supervisory functions⁵ in order to foster the long-term development of the economy; it inspected banks, cooperative societies and savings banks alike. The independence of financial supervision was ensured both in the periods of the Károlyi regime and the Hungarian Soviet Republic (Jenei, 1970), and even subsequently, the operation of the Pénzintézeti Központ was not influenced by external circumstances. The country failed to achieve financial stability in this period, although no major Hungarian banks faced bankruptcy during these years (Tomka, 2000). From its establishment to 1924, the Pénzintézeti Központ participated in the liquidation of around 30 financial institutions. During the years of prolonged inflation, the Pénzintézeti Központ functioned as the main resource of financial institutions; consequently, the number of their inspections rose to 514 from 109 during the period (Jakabb et al., 1941). During the years of the war, the execution of payment transactions – the basic function of the financial institutional system – was not ensured. The economy faced a shortage of banknotes and drafts in general, even though currency issues amounted to around 1 billion koronas in 1918, while banknotes in circulation in the Monarchy amounted to 1.3 billion koronas in total in 1913. Owing to the monetary shortfall, emergency money was issued in numerous regions of the Monarchy,

and at the time of the Monarchy's dissolution (1919), in many cases drafts did not reach their destination for rediscounting, or sometimes the buildings of banks or savings banks and some branches of the Austro-Hungarian Bank were temporarily occupied during military actions. The central bank's situation became critical due to the *en masse* withdrawal of deposits and the redemption of war bonds, and upon the outbreak of the Aster Revolution, there were disruptions even in cash transactions. During the Hungarian Soviet Republic, official foreign exchange trade was suspended and the stock exchange ceased to operate (Pogány, 1993). The deficiencies of risk management are aptly demonstrated by the upswing in the foundation of risky enterprises in 1918, while currency speculation and black market activities burgeoned (Láng, 1960). Parallel to the massive depreciation of the korona, a series of new speculative activities emerged, taking advantage of the repayment of loans with the depreciated korona. Act XVI of 1916 was intended to foster financial stability: as a response to the large number of – often unwarranted – foundations of financial institutions of previous times, the Act banned the foundation of new financial institutions altogether. The severity of this provision was only eased by Act XV of 1918. With the acceleration of inflation, however, a number of new financial institutions were founded⁶ (e.g. for the execution of stock exchange transactions or for financial intermediary activities). These foundations were restricted by the stipulations of Regulations No. 1300 and 6700 of the Minister of Finance (Alföldi, 1928). Although the creation of independent financial supervision benefited financial stability, the financial institutional system was prevented from performing its key tasks by the world war and its consequences, the measures brought during the period of the Hungarian Soviet Republic and the emergence

of speculative activities; therefore, despite the establishment of independent supervision, financial stability failed to materialise. World War I had a negative effect on currency regimes adopting the gold standard and contributed to the shunning of the participating countries by European states, ultimately leading to the contraction of foreign money markets and the drying up of Hungary's sources of credit; consequently, financial integration was not in place after 1914.

In the initial period of independent financial supervision, the central bank shaped its monetary policy autonomously – the supreme council controlled the key policy rate independent of any foreign influence (Pogány, 1993). From the end of World War I until the creation of the independent central bank, central bank functions were temporarily performed by the Royal Hungarian State Bank (Magyar Királyi Állami Jegyintézet) established in 1921. Although the independence of the institution was partly limited by the lien of the Reparation Commission on the banknotes, this did not entail any restriction on monetary policy. In this period, the stability of Hungary's legal tender faltered; the latent inflation emerging around the turn of the century accelerated during the years of World War I, and the deficit of the balance of payments in the aftermath of the war also contributed to the depreciation of the currency (Varga, 1932). The currency depreciated further in the Károlyi era and the period of the Hungarian Soviet Republic; the population's distrust only increased with the issuance of "white money",⁷ and the distrust was also palpable on the part of the bodies of the Hungarian Soviet Republic. It is partly due to this fact that the issuance of emergency money grew progressively. The Treaty of Trianon also hurt the exchange rate of the korona, which could not be offset perceivably even by the overprinting performed in the same year. In addition, the

government notes printed in the meantime started to depreciate as well (Pogány, 1993). The value of the korona was affected by numerous factors: it was influenced by internal stabilisation endeavours on the one hand (e.g. the interventional currency purchases under the Hegedüs programme, the interest rate hikes commenced in 1922) and by the circumstances related to global market events on the other hand (e.g. by the peace conferences in 1920 and by the 1921/1922 economic crisis, as the deficit of Hungary's trade balance and balance of payments decreased as a result of the global price slump). Other measures also assisted in preventing the further depreciation of the currency: the Foreign Exchange Centre (Devizaközpont) founded in 1916 (after its dissolution at the end of 1920 it was re-established in 1922), the foundation of the National Financial Council (Országos Pénzügyi Tanács) in 1921 and the adoption of the "savings korona" in 1924. The effect of these measures, however, was only temporary; they failed to prevent the sustained depreciation of the korona, which plunged to around one seventh of its value in 1923 (Barcza, 1924). In the context of the measures aimed at preserving the exchange rate of the korona, the Foreign Exchange Centre also restricted the circulation of foreign currencies (Popovics, 1926), which remained in effect even after the dissolution of the institution (and subsequently, irrespective of its re-establishment). Foreign exchange turnover was only released later, in 1925 (Pogány, 1993). In 1919, in turn, all credit transfers to foreign accounts (as well as the shipment of any movable property abroad) were banned by decree (Alföldi, 1928); consequently, the free movement of capital was not ensured.

Between 1915 and 1924, the elements of the financial and the monetary trilemma took a rather unfavourable course; in this period only the independence of monetary policy

and, thanks to the Pénzintézeti Központ set up in 1916, the independence of financial supervision was in place.

■ FINANCIAL AND MONETARY TRILEMMA IN THE PERIOD OF EXTENDING THE DUTIES AND THE COMPETENCE OF FINANCIAL SUPERVISION DURING THE YEARS OF CURRENCY STABILISATION (1925-1930)

In the period following 1924, the independence of Hungarian financial supervision was accomplished; supervisory inspections and measures were not influenced by external circumstances, and all tasks related to the supervisory activity were defined at the national level. The duties of the Pénzintézeti Központ were expanded, its supervisory role strengthened and, pursuant to Act XIII of 1926, the range of inspected institutions was extended to cover securities dealers. In addition, it also played a pivotal role in conducting the merger of financial institutions.⁸ All this contributed significantly to the supervisory management of the challenges posed subsequently by the global economic crisis. During the years of the consolidation under the Bethlen government (1924–1931), the performance of the core functions of the financial institutional system was ensured. In the short run, stability appeared to be achieved not only in a political and economic sense but also from a financial perspective. This, however, carried risks over the longer term. The economic crisis – which reached Hungary somewhat later, in 1931 – underpinned that the stability observed in previous years was merely an illusion. This was confirmed by the report published by the Financial Committee of the League of Nations, which pointed out that – in addition to global economic processes – the oversized expenditures and the deficit of the budget and the inadequate use of foreign credit contributed significantly to the outbreak of the Hungarian financial crisis (Botos, 1999). Thanks to the measures taken

in the area of resolutions, there was an upswing in lending (both traditional and mortgage lending) (Kovács, 2006) and the volume of payment transactions did not increase even in subsequent years (Varga, 1929), while speculative-purpose stock exchange transactions declined significantly. It is indicative of the country's resilience to external economic shocks that contrary to Vienna, where the ending of the speculative attack on the franc⁹ threw numerous banks (such as Depositenbank, Lombard und Escomptbank) into bankruptcy unleashing a turmoil similar to that seen during the 1873 crisis, the effect of this event was fairly moderate in Hungary (Radnóti, 1926). Besides the MNB's efforts to preserve the exchange rate, this can be partly attributed to the activity of the Pénzintézeti Központ, which assisted – especially in the period of 1924–1926 – numerous financial institutions in restoring their operation or in their smooth liquidation, and contributed to easing economic restructuring after the war (Alföldi, 1928). Between 1925 and 1930, the number of financial institution liquidations taken over by the Pénzintézeti Központ for execution was similar as in previous periods (27 liquidations compared to 30 between 1916 and 1924), which does not indicate any material improvement in the stability of the financial institutional system (Jakabb et al., 1941).

As a result of the steps taken toward the implementation of a financial resolution system, the Hungarian economy was re-integrated into the international economic order (Péteri, 1985). In 1926, the international auditing of Hungary's budget was discontinued, which strengthened financial integration through improved access to foreign funds on the one hand, but – for the same reason – deteriorated the country's balance of payments from 1927 on the other. The strengthening of financial integration is aptly demonstrated

by the burgeoning of foreign investments in 1925 and 1926 (e.g. at the Hungarian Commercial Bank of Pest by English, at the First National Savings Bank of Pest by US, and at the Hungarian General Savings Bank by English, US and French investors), and by buoyant debenture issuance. This points to the increasing confidence of the rest of the world in domestic financial institutions. Since foreign capital inflows played a pivotal role in the repayment of loans and reparations, the achievement of financial integration was not only induced by commercial interests but also by the need to manage foreign debt. This, however, engendered new debts over the medium and long term. Although the need to moderate foreign borrowing was recognised by 1928 along with the importance of implementing an economic policy that demands less foreign capital or none at all, policymakers failed to take a significant step forward in this regard. By 1929, the central bank's payment obligations reached such a magnitude that required the bank to resort to foreign currency loans. Thus, despite a slight improvement in the central bank's FX position, by 1931 its debt amounted to 4.3 billion pengő, which was problematic not only in quantitative terms but also in terms of its composition: as short-term loans accounted for a significant portion of the central bank's debts, it was not possible to use the loans for investment purposes. As a general trend, in response to the crisis foreign capital inflows came to an abrupt halt in 1931. As a result, even the balance of payments exhibited a deficit as previously it had been offset specifically by capital inflows (Botos, 1999). Therefore, financial integration was achieved for a temporary period of a few years and only lasted until the spillover of the effects of the global economic crisis to Hungary.

Pegging the korona to the British pound sterling from 1924 as part of the resolution

efforts stabilised the currency, which appreciated by more than 20 per cent between 1924 and 1926 and Hungary became a more desirable investment opportunity for investors. The idea of switching to the gold standard came to the foreground; indeed, it was time to recognise the necessity of this step in view of the fact that numerous countries (e.g. Italy, France, Belgium, etc.) adopted the gold standard in the same period. It was only a technical changeover to adopt pengő-based calculation in 1927; the stability of the currency had been already achieved. The stabilisation of the currency was achieved thanks to the recognition in the 1920s that the stability of the currency was a pre-requisite of economic recovery (Péteri, 1985). In 1925, Regulation No. 6550 of the Minister of Finance lifted the ban on foreign currency trading and transactions, and payment transactions with the rest of the world commenced.¹⁰ This ensured the free movement of capital; Hungary became an open economy once again, and the exchange rate of its currency was determined by market mechanisms. In 1924, the National Bank of Hungary – the Magyar Nemzeti Bank – was established as a company limited by shares. Its main task was to ensure the stability of the legal tender's exchange rate (for example, by depositing all public funds at the central bank) and accordingly, the required metal reserves, and to regulate payment transactions. The independence of the MNB's monetary policy was compromised by the fact that, under the agreement concluded with the Bank of England in the interest of currency stabilisation, the Bank of England was entitled to request the MNB to raise its discount rate until the full repayment of the advance payment (1926) (Péteri, 1985). This points to the presence of a trade-off where economic policy was temporarily forced to give up the independence of monetary policy for the sake of currency stabilisation. Thus all elements of

the financial trilemma manifested themselves in the span of a few years; however, due to the nature of the trilemma, this state – as demonstrated by the period to come – could not be sustained.

It was in the period between 1925 and 1930 that most elements of the two trilemmas were achieved during the entire review period: independence was fully achieved in respect of financial supervision and partially achieved in respect of the monetary policy; in addition, financial integration, free capital movement and currency stability were also attained and the financial system appeared to be stable. During these years, a number of trade-offs could be observed both within and between the trilemmas. The former occurred in the case of the monetary trilemma; as we have seen, the independence of monetary policy was temporarily suppressed for the sake of currency stability. The latter, in turn, exhibited a trade-off in that the elements of the monetary trilemma manifested themselves as described above, whereas in the case of the elements of the financial trilemma, the independence of financial supervision was ensured, while financial stability was not fully attained.

■ **MANIFESTATION OF THE ELEMENTS OF THE FINANCIAL AND MONETARY TRILEMMAS DURING THE YEARS OF THE GLOBAL ECONOMIC CRISIS AND THE PERIOD TO FOLLOW (1931–1938)**

The independence of financial supervision was reflected in the free definition of the focal points of the supervisory activity without foreign control. In this context, one of the priorities of the Pénzintézeti Központ was the vigorous inspection of liquidity, as – given the lack of confidence – foreign loans could only be refinanced at shorter and shorter maturities. This circumstance was especially hard on rural financial institutions. Liquidity risks were aggravated by the fact that financial institutions

lent out nearly their entire deposit portfolios (Jirkovsky, 1940). The number of inspections conducted by the Pénzintézeti Központ rose steadily during the economic crisis, peaking in 1931 with 1,096 inspections (Jakabb et al., 1941). It was within the competence of the Pénzintézeti Központ to schedule the inspections and to develop the inspection programme. In Hungary, the financial and credit crisis began in 1931, although some signs of the economic crisis could be perceived somewhat earlier (e.g. in respect of declining export revenues). It was the suspension of payments by Creditanstalt in Vienna that prompted Hungary's foreign creditors to cancel disbursements and unleashed the bank panic. Seeing the Hungarian economic situation, foreign creditors scrambled to recover their money from the country even at the price of compromises. Combined with the transfer moratorium, this circumstance contributed to the successful – if partial – resolution of banks (Varga, 1964). Founded in 1931, the Magyar Szavatossági Bank (Hungarian Guarantee Bank) contributed significantly to regaining financial stability after the crisis. The purpose of the Bank was to maintain the solvency of financial institutions. Accordingly, the Bank was entitled to offer acceptance credit to financial institutions for the smooth repayment of deposits. The resolution function of the Pénzintézeti Központ bolstered stability; indeed, by the time of the economic crisis it had accumulated extensive resolution experiences during previous episodes of bank crises. The relative stability of the financial system is evidenced by the fact that the Pénzintézeti Központ took over the liquidation of only 38 financial institutions in total during the years of the crisis and in subsequent years. In other words, the number of financial institutions taken over for liquidation did not increase significantly as a result of the crisis compared to previous years (Jakabb et al., 1941).

In order to avoid insolvency, Regulation No. 4000/1931 of the Minister of Finance temporarily ordered a bank holiday in Hungary as well¹¹, which was subsequently followed by deposit taking restrictions. Although these restrictions were lifted in the period to follow, financial integration and free capital movement were still not achieved against the backdrop of the transfer moratorium introduced at the end of 1931, the credit-fixing “*Stillhalte*” (“Standstill”) agreements frequently concluded during these years, the reluctance of foreign creditors and the general distrust in lending. This situation did not change perceptibly even after the positive changes observed in the international money market in subsequent years. After having been lifted in 1925, with the adoption of Regulation No. 4100/1931 of the Minister of Finance¹² restrictions were once again imposed on FX transactions from 1931 for 70 years to come. In this context, as per the MNB’s instructions, moving currency abroad or currency payment to non-residents as well as borrowing from and disbursements to international money markets were subject to permission. As a result of these central bank measures, the stability of the currency’s exchange rate was achieved and the pengő preserved its extrinsic value. The price level only started to edge up – deteriorating the intrinsic value of the currency – after the uniform premium system was introduced in 1935 and the commencement of the armament with the Győr programme from 1938 (Botos, 1999). It is indicative of the independence of the central bank’s monetary policy that the definition of the interest rate was not influenced by external factors; consequently – with a view to moderating heightened credit demand – from 1931 the central bank raised the discount rate from 5.5 per cent first to 7 per cent and then to 9 per cent, only to reduce it in subsequent years to 8 per cent and then gradually to 4 per cent¹³ by 1935 to boost the appetite to bor-

row. Although monetary policy temporarily lost its independence after the spillover of the crisis in mid-1931, it regained it once again through a trade-off: by giving up on free capital movement.

Between 1931 and 1938, therefore, financial integration and free capital movement were thwarted by the measures taken in response to the global economic crisis; however, the independence of financial supervision and the stability of the currency were preserved. After the previous partial achievement of monetary policy independence, the independence of monetary policy was fully achieved in the second half of this period; financial stability, however, was not fully ensured despite the measures taken to that end. In this period, a trade-off occurred within the monetary trilemma: economic policy ensured the independence of monetary policy while giving up on free capital movement.

SUMMARY

In the period of formulating the initial proposals and initiatives for the establishment of supervisory activity and establishing predecessor organisations, in the absence of a supervisory body, the independence of financial supervision was impertinent; independent financial supervision only materialised after the establishment of the Pénzüntézetű Központ in 1916. With respect to the Monarchy, financial integration was in place, providing the Monarchy with access to the European money and capital markets. However, the inadequate level of financial stability was reflected in the country’s low resilience to economic shocks. The enforcement of the elements of the monetary trilemma, however, was more favourable: free capital movement was ensured throughout the period. The stability of the exchange rate,

on the other hand, could only be attained effectively – on a temporary basis – with the adoption of the new currency system (the gold korona regime) in 1900. With respect to the relationship between the Monarchy and the rest of the world, although the independence of monetary policy was achieved before the turn of the century, it was impaired by the New York stock exchange crash. As regards Hungary, the independence of monetary policy could not be attained in this period owing to Austrian control (in the case of the Austrian National Bank) and joint control (in the case of the Austro-Hungarian Bank) over the interest rate policy.

In the years following World War I, the only element that was achieved of those of the financial trilemma was the independence of financial supervision. The lack of financial stability was primarily demonstrated by the large number of liquidations. Against the backdrop of faltering gold standard regimes and the drying up of foreign money markets, financial integration was not accomplished. Looking at the individual elements of the monetary trilemma, we find that only the independence of monetary policy was ensured, as the rest of the world had no significant control over the definition of the central bank's base rate. At the same time, with the acceleration of the inflation rate, the stability of the national currency exhibited an increasingly deteriorating trend, and due to the adoption of restrictive measures, free capital movement could not be attained.

During the years of consolidation under the Bethlen government, the independence of financial supervision was preserved. The discontinuation of the international auditing of the central budget was beneficial to financial integration, and although several circumstances pointed to the achievement of financial stability, the large number of financial institution liquidations and subsequently,

the effect of the economic crisis betrayed that the existence of financial stability was only an illusion. In 1924, the national currency stabilised and the korona embarked on an upward trend. The free movement of capital was ensured by decree and is evidenced by the increasing number of foreign interests in Hungary. At the same time, owing to the Bank of England's right to influence the discount rate, the independence of Hungary's monetary policy was temporarily (until 1926) not in place.

During the economic crisis and even in subsequent years, the independence of financial supervision was ensured, and the partial resolution of financial institutions contributed to improving financial stability. As a result of the transfer moratorium, the credit-fixing agreements and the restrictions imposed on foreign exchange management, financial integration and free capital movement were not ensured. Despite the economic crisis, the stability of Hungary's currency was preserved throughout the period, as was the case with monetary policy independence: the interest rate was defined autonomously, free of external influence.

In view of how the individual elements of the financial and monetary trilemma were achieved in specific periods, we may conclude that the common elements of the two trilemmas are financial integration and free capital movement: either both or neither of them was achieved in all of the periods under review. Trade-offs within the trilemma occurred in the case of the monetary trilemma during the years of the Bethlen consolidation and in the period of the economic crisis: in the case of the former, the economic policy was forced to temporarily relinquish monetary policy independence for the sake of currency stabilisation, while in the case of the latter, the independence of monetary policy was ensured and free capital movement was abandoned. Trade-offs between the trilemmas occurred

during the years of the Bethlen consolidation. In respect of the monetary trilemma, currency stability was ensured during these years, whereas the independence of monetary policy was temporarily suspended. As regards the elements of the financial trilemma, policy failed to achieve financial stability but managed to ensure the independence of financial supervision. Regarding the elements of the trilemma, we found that all factors of the financial and

monetary trilemma were temporarily in place for a short period of time; maintaining this state, however, was not possible due to the specificities of the trilemmas. The instability of the financial system was revealed after the Bethlen consolidation with the spillover of the global crisis to Hungary, and as the crisis deepened, maintaining the rest of the elements of the financial and monetary trilemma in itself posed challenges for the economic policy.

NOTES

- ¹ This article presents the authors' views and does not necessarily reflect the official opinion of the National Bank of Hungary.
- ² The establishment of a regulatory union would have opened up the possibility of jointly shaped bank regulation and interest rate policy, but in the absence of such a union, Hungary's control over the central bank's interest rate policy remained limited.
- ³ In 1866, government debt amounted to HUF 140 million, only HUF 57 million less than the debt faced in the year of the 1848 revolution. Count Menyhért Lónyay claimed that the dire financial state of the Monarchy was mainly due to the inconsistency between financial and foreign policy decisions (Jirkovsky, 1940 and Somogyi, 1976).
- ⁴ Silver one forint coins were not withdrawn from circulation; they could even be included in the metal reserves and the central bank was not obligated to exchange either the one forint coins or the banknotes for gold koronas.
- ⁵ Annex to Act XIV of 1916 on the Pénzintézeti Központ (Statutes)
- ⁶ In 1923, around 90 banks and savings banks were established in Budapest (Alföldi, 1928).
- ⁷ White money had an image printed on one side only; the other side was typically left blank.
- ⁸ Act XIII of 1926 on Amending Certain Stipulations of Act XXXVII of 1920 on the Pénzintézeti Központ, Article 1
- ⁹ After the attack on the franc ended, previously rampant currency speculation moderated, while the exchange rate of the franc stabilised and generated substantial gold inflows for France (*Balla, 1935*).
- ¹⁰ Royal Hungarian Ministry Regulation No. 6550 of 1925 of the Minister of Finance, Article 1
- ¹¹ Royal Hungarian Ministry Regulation No. 4000 of 1931 of the Minister of Finance on keeping the cash desks of financial institutions closed on 14, 15 and 16 July 1931, Article 1
- ¹² Royal Hungarian Ministry Regulation No. 4100 of 1931 of the Minister of Finance on the temporary measures required for the bank holidays stipulated by Regulation No. 4000/1931 of the Minister of Finance, Articles 1–2
- ¹³ Volume 11 (1935) of the economic report published by the Pénzintézeti Központ

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