

The OeNB's reaction to the end of the Bretton Woods system: tracing the roots of the Indicator

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In response to the end of the Bretton Woods system, the Oesterreichische Nationalbank (OeNB) aimed at keeping the value of the Austrian schilling stable vis-à-vis the currencies of the country's main trading partners. The OeNB's solution for achieving this objective was to introduce an internal target for the exchange rate between the Austrian schilling and the U.S. dollar (USD) based on a method called the Indicator. This paper investigates the origins of this Indicator. It finds that it was an ad hoc innovation developed by the OeNB during the days before August 25, 1971, in response to political opposition to its initial plans to revalue the Austrian schilling in line with the Deutsche mark and the Swiss franc only. The Indicator enabled the central bank to channel the political opposition into a technical debate and to make some concessions on details such as the composition of the currency basket. At the same time, it helped manufacture consent regarding the cornerstones of the new strategy, namely the stability of exchange rates vis-à-vis the main trading partners and a managed float vis-à-vis the U.S. dollar. The OeNB thereby preserved the traditional consensus in Austrian exchange rate policy, despite the fundamental shift from the traditional export-oriented to a stability-oriented exchange rate policy which took place in the early 1970s.

JEL classification: E40, N10

Keywords: Austrian economic history, monetary and exchange rate policy, Bretton Woods, currency baskets

The Oesterreichische Nationalbank (OeNB) announced its new monetary policy strategy on August 24, 1971, one week after the U.S.A. had closed the gold window on August 15, 1971, and thus effectively put an end to the Bretton Woods system. The OeNB's new monetary policy strategy aimed at keeping the Austrian schilling (ATS) stable vis-à-vis the currencies of the country's main trading partners. The OeNB implemented this key objective by introducing an internal target for the ATS/USD exchange rate based on a currency basket called the Indicator.

The literature concludes that the new monetary policy strategy and the

Indicator were a success. Nevertheless, very little is known about the Indicator's origin and its contribution to the effectiveness of the OeNB's new monetary policy strategy. This paper aims to fill this void.

First, this paper traces the evolution of the Indicator in August 1971. The analysis also takes into account the politico-economic tensions among the stakeholders of Austrian exchange rate policy. Furthermore, the study places the Indicator in the wider context of the transition from an export-oriented to a stability-oriented exchange rate policy², which took place in Austria in the early 1970s. The investigation

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² A stability-oriented exchange rate policy is defined as one that puts higher weight on preventing the import of inflation rather than on subsidising exporters and tourism. Until the early 1970s, the latter objective dominated over the former.

Refereed by:
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builds on expert interviews, material from the archives of the Republic of Austria, the OeNB, the social partners, the Social Democratic Party of Austria (SPÖ) and the conservative Austrian People's Party (ÖVP).

The paper is structured along the following lines: Section 1 sketches the economic and political environment in 1971. Section 2 describes the OeNB's reaction to the end of Bretton Woods and the introduction of the Indicator. Section 3 examines two hypotheses regarding the origin of the Indicator. Building on this, section 4 provides a detailed chronology of the development of the Indicator prior to August 25, 1971. Section 5 offers an assessment of the OeNB's reaction to the end of Bretton Woods. Section 6 explains how the Indicator contributed to the success of the OeNB's new monetary policy strategy. Finally, section 7 concludes.

1 The economic and political environment in Austria in 1971

A broad political consensus among the two relevant political parties³ and the social partners⁴ underpinned monetary policy and exchange rate policy in Austria in the post-war period (Mooslechner et al., 2007). Austria's successful long-term development strategy after 1945 comprised the internationalization of the Austrian economy. In 1953, the Austrian schilling became convertible: the exchange rate was fixed at ATS/USD 26, which implied a strategic undervaluation of the Austrian schilling to subsi-

dize exports and tourism.⁵ Both political parties and the social partners were committed to fixed exchange rates and low inflation (Socher, 1973). All of these players were represented on the General Council of the OeNB. The Nationalbank Act of 1955 (Nationalbankgesetz – NBG 1955) defined the objectives of the OeNB in Article 2 (3) as follows: "It shall ensure with all the means at its disposal that the value of the Austrian currency is maintained with regard both to its domestic purchasing power and to its relationship with stable foreign currencies." In 1971, the SPÖ formed the Austrian government; it had close ties with the Chamber of Labour and the Austrian Trade Union Federation. The ÖVP was the main opposition party, with close ties to the Chamber of Agriculture, the Chamber of Commerce and the Federation of Austrian Industries (FAI).

Broad political backing and its clearly defined objectives underpinned the OeNB's credibility in Austria and spurred the subordination of other policy areas, i.e. fiscal, income, macroprudential⁶ and capital account policy, to the objectives of fixed exchange rates and low inflation (Korp, 1971).

Increasing tensions within the Bretton Woods system characterized the international economic environment. Growing international demand for U.S. dollar liquidity led to a U.S. balance of payments deficit and exposed the U.S.A. to a run on its gold reserves (Triffin dilemma).⁷ The U.S. Administration took a number of mea-

³ Between 1945 and 1986, the SPÖ and the ÖVP regularly won more than 80% of the votes in general elections.

⁴ The social partners consist of the Chamber of Agriculture, the Chamber of Commerce, the Chamber of Labour, the Federation of Austrian Industries and the Austrian Trade Union Federation.

⁵ See Handler's contribution to this volume for a history of Austrian exchange rate policy.

⁶ For details on the changing history of macroprudential policy in Austria after 1945, see Döme et al. in this volume.

⁷ By 1963 the combined U.S. dollar reserves of non-U.S. monetary authorities exceeded U.S. gold reserves (Eichengreen, 2008).

asures to address the symptoms of the underlying structural problem, such as capital controls and Roosa bonds (U.S. government bonds guaranteed against U.S. dollar devaluation). Both, external and internal devaluations aimed at bringing about balance of payments adjustments were politically costly (Garritsen de Vries, 1976a). In addition, the U.S. monetary and fiscal expansion associated with the Vietnam War and President Johnson's Great Society agenda put further pressure on the U.S. balance of payments and on U.S. inflation. James (1996) and Eichengreen (2008) argue that addressing the structural problem would have required diminishing the U.S. dollar's reserve currency status – something the U.S.A. refused to do.⁸ The countries that held increasing amounts of U.S. dollar reserves feared that the ensuing increase in the volume of their own currency in circulation would lead to inflation. In the late 1960s, the combination of the progressive liberalization of the short-term capital account, the fast-growing European dollar market and the resulting increase in the volatility of speculative capital flows in Europe further exacerbated the consequences for European currencies (Schmitz, 1969). Fixed exchange rates, capital mobility and an independent monetary policy proved hard to reconcile (James, 1996). In May 1971, a number of European countries, including Austria, Germany and Switzerland, temporarily floated or revalued their currencies. Solomon (1977) suggests that, nevertheless, in early summer

1971 the wider-than-expected U.S. balance of payments deficit again boosted speculative capital flows out of the U.S. dollar. In August 1971, the U.S. Administration temporarily suspended the convertibility of the U.S. dollar into gold and other reserve assets to protect its gold reserves. This effectively ended the Bretton Woods system, although the Smithsonian Agreement in December 1971 prolonged its demise until 1973 (James, 1996).

Officially the OeNB did not actively engage in this international reform discussion; but its President at the time, Wolfgang Schmitz, called for strengthening the multilateral structure of the international exchange rate system as opposed to unilateral actions (dual exchange rate systems⁹ and revaluations) (see i.a. Schmitz, 1970, 1972a, 1973). He advocated more flexibility in exchange rates as well as in the use of the following methods: crawling pegs would be suitable to offset different rates of inflation, the widening of margins around U.S. dollar parity would be more appropriate to discourage speculative capital flows, while (managed) floating rates could avoid speculation in the period between the insight that a currency is under-/overvalued and the fixing of a new parity vis-à-vis gold and the U.S. dollar.

In 1971, the OeNB partly and temporarily reversed the ongoing liberalization of international capital flows. In 1946 the Foreign Exchange Act (Federal Law Gazette No. 162/1946) had introduced strict capital controls in Austria. For all transactions in foreign

⁸ Nevertheless, in 1967 the members of the IMF agreed to introduce an artificial international means of payment, the Special Drawing Rights (SDRs), a basket currency that the IMF should have been able to allocate. However, the IMF allocated the first SDRs only in 1970 and its share in international reserves remained low (Garritsen de Vries, 1976a).

⁹ A dual exchange rate system features different exchange rates and policy regimes for different currency transactions, e.g. a fixed exchange rate regime for trade-related transactions and a (managed) floating rate regime for currency transactions related to the capital account.

currency and gold, prior approval had to be sought from the OeNB, which acted as foreign exchange authority. The approval practice was very strict until 1953, when the OeNB started a cautious and stepwise liberalization process (Mooslechner et al., 2007). In the first phase (1954–59), it liberalized current account transactions with the member countries of the Organization for European Economic Co-operation (OEEC), Canada and the U.S.A. In the second phase (1959–63), the OeNB granted general approval for capital account transactions to foreigners and eased the approval practice in place for Austrians. The OeNB implemented the liberalization process by issuing official announcements according to the Foreign Exchange Act, without seeking amendments to the act itself. That ensured the OeNB a high degree of flexibility in tightening capital controls if and when necessary. This was the case when it again required individual approval for bank deposits by foreigners in May 1971 and for other forms of capital imports in November 1972 (until 1976). However, *vis-à-vis* banks, the OeNB largely refrained from imposing quantitative limits on capital imports or exports and from tightening its approval practice significantly. Instead it aimed at driving a wedge between interest paid on deposits in Austria and abroad through a so-called Gentlemen's Agreement (see Döme et al., in this volume). Similarly, quantitative restrictions on capital imports via purchases of domestic bonds and equity by foreigners from Austrian residents were implemented in the form of amendments to the (voluntary) credit control agreements in October 1972 (see Döme et al., in this volume). In November 1972, the OeNB re-established the practice of requiring individual approval for purchases of real estate and loans provided

by foreigners. These measures proved effective, and the applications for approval of capital imports by banks remained low after these measures had been taken. The third and final liberalization phase commenced in 1981 and ended in 1991, when capital controls were finally abolished.

The OeNB closely monitored other countries' reactions to the end of Bretton Woods. On August 21, 1971, the Austrian representative to the International Monetary Fund (IMF) circulated an overview of the immediate exchange rate measures taken by other European countries (OeNB, 1971b, No. 778, annex 1). France would introduce a dual exchange rate (with the IMF's approval, Garritsen de Vries 1976a, p. 543). On the official French franc market, foreign currencies would be bought and sold at par, on the financial French franc market, the exchange rate would fluctuate according to supply and demand. The former was reserved for transactions in connection with trade in goods and services and transactions of governments and public authorities. The latter was reserved for capital account transactions. Belgium and Luxembourg maintained their dual exchange rate system, but stopped ensuring that the margins of fluctuations on the official market were adhered to. However, the economic union between Belgium and Luxembourg attempted to limit the fluctuations of their common currency, the Belgian franc, *vis-à-vis* the Dutch guilder to 1.5%. Further internal OeNB documents analyzed the measures taken by other countries (OeNB, 1961–1978): some suspended the buying rate of their currencies versus the U.S. dollar (Denmark, Portugal), while others informed the IMF that their currencies might fluctuate outside the margins of $\pm 0.75\%$ around parity (Germany, Japan, Spain

and Switzerland). The countries in the pound sterling block (e.g. Australia and New Zealand) aimed at keeping fluctuations within bandwidths vis-à-vis the pound sterling, but not vis-à-vis the U.S. dollar. No country aimed at maintaining the value of its currency stable relative to a currency basket as an immediate response to the events of August 15, 1971.

2 The OeNB's reaction to the end of Bretton Woods: managed floating and the Indicator

On August 15, 1971, U.S. President Nixon temporarily suspended the convertibility of the U.S. dollar into gold and other reserve assets.¹⁰ This violation of the Articles of Agreement of the IMF effectively put an end to the multilateral exchange rate system of Bretton Woods. Governments around the world responded by closing currency markets for the following week. The authorities had to come up with new exchange rate policies and monetary policy strategies.

On August 23, 1971, the OeNB officially announced its reaction to the end of Bretton Woods. It suspended the official buying rate of ATS/USD 24.51, but maintained the official selling rate of ATS/USD 24.99.¹¹ The gold parity remained unchanged. In addition, the OeNB communicated a set of accompanying measures: (1) the sterilization of speculative capital inflows after August 13, 1971; (2) the temporary tightening of capital controls (capital account transactions with foreigners were again made subject to individual

OeNB approval) (OeNB, 1971a, 13/71); and (3) the discontinuation of the OeNB's official daily exchange rate announcements according to the Foreign Exchange Act (OeNB, 1971a, 14/71). The central bank also declared its intention to stabilize the relationship of the Austrian schilling with the currencies of the major European industrial countries. Finally, it confirmed its commitment to multilateralism and close cooperation with the IMF. Overall, the OeNB adopted a strategy of managed floating for the ATS/USD rate. It decided against a dual ATS/USD rate, as this would have violated the Articles of Agreement of the IMF and would have implied high bureaucratic costs due to extensive current account and capital account controls, which could have hampered international trade.

The OeNB cited as the motives for its new strategy its legal mandate pursuant to Article 2 (3) NBG 1955 and the broad societal consensus regarding price stability.¹²

The OeNB operationalized its objective of stabilizing the Austrian schilling against the currencies of the major European industrial countries and adopted the Indicator, a currency basket consisting of the currencies of its major trading partners. It did not communicate externally the currencies in the basket, nor their weights, nor the daily target values.¹³

The managed float was in operation until the realignment of international exchange rates on December 21, 1971,

¹⁰ For accounts of the international negotiations before August 1971, see Solomon (1977, chapter 10) and Garritsen de Vries (1976a, chapter 24).

¹¹ OeNB (1971d, August 23) and OeNB (1971e, August 23).

¹² OeNB (1971d, August 23) and OeNB (1971e, August 23).

¹³ For two years the details of the method were kept confidential; Socher (1973) was the first to publish some of the details.

through the Smithsonian Agreement¹⁴. On December 22, 1971, the OeNB announced a new ATS/USD central rate of 23.30 and a broader bandwidth ($\pm 2.25\%$), but said it would aim for $\pm 1.5\%$ under normal conditions (APA, 1971, December 22). The gold parity remained unchanged (OeNB, 1971b, No. 795). Relative to the long-term parity of ATS/USD 26, this constituted an appreciation of 11.59%, and a rise of 6.22% relative to the appreciation of May 9, 1971. The OeNB derived the new central rate from the Indicator value as of December 22, 1971 (OeNB, 1971e, and APA, 1971, December 22).

The Indicator was defined as the volume-weighted average of daily changes of the exchange rates of major European trading partners against the U.S. dollar, expressed in ATS/USD terms (OeNB, 1971b, No. 781). The list of main trading partners comprised Belgium, Denmark, the Federal Republic of Germany, Italy, Luxembourg, the Netherlands, Norway, Sweden, Switzerland and the U.K. Trade with these nine countries amounted to 66.6% of Austria's exports and imports of goods (average for the period from 1968 to 1970). The trade shares were: Federal Republic of Germany 33.4%, Switzerland 8.5%, Italy 8.2%, the U.K. 6.3%, the Netherlands 4.6% (including Belgium and Luxembourg) and Sweden (including Denmark and Norway) 5.6%. Based thereon, the shares of the respective six currencies in the Indicator amounted to: DEM 50.2%, CHF 12.8%, ITL 12.3%, GBP 9.5%, NLG 6.9% (for Belgium, Luxembourg and the Netherlands) and SEK 8.3% (for Denmark, Norway and Sweden).

The calculation of the first Indicator value for August 25, 1971, can serve as an example: on August 24, 1971, the

OeNB fixed the ATS/USD rate at 24.52. This served as the initial value for the ATS/USD index. On the morning of August 25, 1971, the OeNB observed the following decline in USD rates for the basket currencies: –DEM 0.15%, –CHF 0.25%, –ITL 0.41%, –GBP 0.29%, –NLG 0.13% and SEK 0%. The weighted sum (according to the above currency weights) amounted to -0.20% . Thus, the so-called conversion factor was 99.80% ($100\% - 0.20\%$). The target rate was calculated as the product of the initial index value times the conversion factor: (ATS/USD 24.52 \times 99.80% = ATS/USD 24.47). Based thereon, the OeNB defined the pre-open trading bandwidth as ATS/USD 24.44 to ATS/USD 24.54. The mid-rate was set at the mid-day fixing within the bandwidth based on demand and supply on the Vienna foreign currency market. The OeNB profited from the earlier daily price discovery on the currency markets of the currencies in the basket.

3 The origin of the Indicator

For the first time, the President of the OeNB unofficially communicated the new monetary policy strategy on August 22, 1971, only one week after the suspension of USD convertibility. This section traces the roots of one of the strategy's major innovations, the currency basket called the Indicator. It focuses on two hypotheses:

1. The Indicator might have been used internally before August 1971, when the costs and benefits of potential realignments of the ATS/USD rate had been discussed internally.
2. The Indicator could have been an ad hoc policy innovation that was developed in the few days between August 15 and August 22, 1971.

¹⁴ For further details, see Solomon (1977, chapter 12), Garritsen de Vries (1976a, chapter 27) and James (1996, p. 235).

At first sight, hypothesis 1 seems more plausible. A new monetary policy strategy implies substantial risk for policy-makers (Schubert and Theurl, 1995), which incentivizes them to rely on tested instruments. This hypothesis can be checked by studying the internal documents concerning the OeNB's reactions to the appreciations of the Deutsche mark (DEM) in October 1969 and May 1971, as well as to the potential appreciations of the Deutsche mark in November 1968 and August 1970.

The Austrian schilling did not appreciate against gold and the U.S. dollar when the Deutsche mark unilaterally appreciated in November 1968 and October 1969. Internal OeNB analyses studied the effects of a DEM/USD appreciation under the assumption that the ATS/USD rate would not appreciate. They focused on the effects (1) on trade in goods and on tourism, (2) on imported inflation, and (3) on net external debt service costs (OeNB, 1961–1978). The OeNB highlighted the benefits of the nonappreciation of the Austrian schilling in the form of subsidies for exports and tourism, in line with the long-term development strategy and the broad political consensus in Austria. At the same time, it estimated the associated costs in the form of imported inflation to be comparatively low (up to 60 basis points if the DEM/USD rate increased by 5%), because it predicted substitution effects, discounts of German exporters and the effects of Austrian disinflationary measures to cushion the impact of DEM appreciation. In 1969, the Austrian government initially favored an ATS appreciation as a means to fight in-

flation.¹⁵ The representatives of exporters (Chamber of Commerce and FAI) as well as the labor representatives (Chamber of Labour and Austrian Trade Union Federation) opposed the appreciation.¹⁶ Eventually, consensus emerged among all relevant players to refrain from ATS appreciation (OeNB, 1969–1973, No. 258).

Only one year later, in August 1970, the OeNB reached a completely different conclusion under the same scenario; rumors suggested that the Deutsche mark would appreciate again, and the OeNB prepared for a response. The OeNB estimated the costs of imported inflation to be of a similar magnitude as in 1968 and 1969. But this time, it regarded further subsidies of exports and tourism unnecessary and even detrimental to the objective of export market diversification. In addition, investment activity was high at the time, partly funded by Deutsche mark debt. The OeNB feared that an increase of the ATS value of the DEM debt burden would have damaging effects on investment and growth. A stability-oriented exchange rate policy began to replace the export-oriented exchange rate policy that had been in place since 1945. For the first time, the broad political consensus regarding Austrian exchange rate policy was called into question. At the end of the day, the Deutsche mark did not appreciate and the OeNB's analysis remained without political consequences.

In May 1971, the OeNB decided to revalue the Austrian schilling against the U.S. dollar and gold by 5.05% – roughly in line with the Deutsche mark and the Swiss franc – and to widen the bandwidth around U.S. dollar parity

¹⁵ Interestingly, the public blamed the government for high inflation, rather than the central bank (Socher, 1980).

¹⁶ Socher (1973) argues that the Austrian schilling would have appreciated with the Deutsche mark, if the Swiss franc had done so, too. Foreign policy concerns impeded an appreciation with the Deutsche mark only.

from 0.75% to 1%. The decision was based on the same reasoning as presented in August 1970. In addition, it was intended to fend off speculative capital inflows and stem increasing pressure on wages from labor emigration toward Switzerland and West Germany¹⁷ (SMP, 1971a). Responding to demands by the FAI presented at the General Council of the OeNB, the President of the OeNB stated that burdens for exporters and benefits for importers were the inevitable consequences of exchange rate revaluations; compensation was not possible and could not be expected from the central bank, OeNB (1971f).

Representatives of the export industry – the Chamber of Commerce and the FAI – strongly opposed the move (FAI, 1971a, June 29) and called for compensation (Die Industrie, 1971). Nevertheless, the final decision was backed by the government, the opposition and the social partners (OeNB, 1969–1973, May 10, 1971); especially the Austrian Trade Union Federation and the Chamber of Labour supported the appreciation, because the Austrian labor representatives traditionally had a low tolerance for inflation.¹⁸ Forming a consensus was helped by the fact that the effective ATS appreciation amounted to only 3.3% rather than the official 5.05% and by government measures that eased the burden on exporters (e.g. export subsidies, export guarantees, and hedging operations at lower rates). The OeNB's Subcommittee on Monetary Policy decided against floating rates for fear of increasing speculative capital flows.

The final consensual decision did not silence opposition among exporters,

which was so fierce that it led to conflicts within the FAI Board (FAI, 1971a, June 14). The critics complained heavily that the FAI had not done enough to communicate the “very high costs for exporters” of the ATS appreciation to the government, the central bank and the general public. The FAI representative to the General Council of the OeNB explained to his FAI colleagues that speculative inflows made appreciation inevitable. FAI President Franz Josef Mayer-Gunthof defended his administration against the harsh accusations and even cited from the minutes of the respective meeting of the OeNB General Council in May 1971 to appease internal critics. In response, the FAI Board instituted a Committee for Exchange Rate Policy, which held its first meeting on September 24, 1971 (FAI, 1971a, October 21).

Neither internal OeNB documents nor any of the minutes of OeNB meetings contain any hint of the Indicator, effective nominal exchange rates or exchange rate indices. Thus, the present analysis rejects the hypothesis that the Indicator might have been used internally at the OeNB before August 1971.

However, the available documents reveal increasing tensions regarding exchange rate policy among the major stakeholders. In fact, the present analysis documents the transition from an export-oriented to a stability-oriented exchange rate policy in the early 1970s, which unsettled the broad consensus that had governed Austrian exchange rate policy until then.

Testing hypothesis 2 – that the Indicator could have been a policy innovation that was developed within a few

¹⁷ Higher wages in Switzerland and Germany led to labor shortages in western Austria and to undesired upward pressure on wages.

¹⁸ According to Schmitz (2016c), this was due to the interwar experience in Austria.

days in August 1971 – involved studying the minutes of internal OeNB meetings and documents as well as the minutes of the meeting of the Austrian Cabinet on August 23, 1971 (Austrian Cabinet, 1971), and conducting expert interviews with contemporary witnesses. The OeNB's deliberations regarding earlier events of actual and potential revaluations of the Deutsche mark are much better documented than the events around the end of Bretton Woods. The minutes of the OeNB Governing Board meeting on August 22, 1971, state that “[b]ased on a novel method of calculation currently under elaboration, the rates of the currencies of the main European trading partners should be kept stable...”¹⁹. On August 23, 1971, the OeNB presented to the government a proposal to revalue the Austrian schilling by an amount to be derived from the Deutsche mark and the Swiss franc appreciations, once the currency markets had reopened (Austrian Cabinet, 1971; see below for more details). On August 25, 1971, the term Indicator appeared for the first time in the minutes of a Governing Board meeting (OeNB, 1971b, No. 781). Two OeNB experts (Ferdinand Hain and Johann Stelzer, Head and Deputy Head of the International Department, respectively) presented the general method and weights to be used and gave examples. The Banking Department (Head: Klaus Mündl) would calculate the daily Indicator values and fix the daily pre-open bandwidth with the Chief Executive Director. In parallel, the Arbitrage Office would collect the bid and ask prices and volumes from the Austrian banks until midday, before joining the

daily fixing at the Vienna stock exchange at 1:00 p.m. (Schmitz, 2016a).

The few available documents do not provide details of how the new method was derived by OeNB staff. However, the comparison of the Indicator weights with the statistical material published in the monthly OeNB publication *Mitteilungen der Oesterreichischen Nationalbank* (OeNB, 1971c; Communications of the OeNB) sheds light on the derivation of the details of the method, i.e. countries, weights and currencies involved.

First, table 4.10²⁰ (OeNB, 1971c, February, p. 146–147 data on imports and exports of goods) seems to have been the primary data source. Based thereon, the OeNB determined the weights by averaging each country's share in total imports and exports of goods from 1968 to 1970. These figures excluded trade in services (tourism) although the sum of imports and exports of services equated to 21% of the sum of import and exports of goods. Less detailed statistics regarding the origin and destination of tourists were available, however (table 4.2, OeNB, 1971c, February, p. 145; data on tourism, incoming: only guest nights (not expenditure) per country of origin; outgoing: only guest nights in aggregate, not according to destination). Furthermore, the inclusion of tourism data would have further increased the weight of the Deutsche mark in the basket, as the share of West Germans among tourists visiting Austria was very high from 1968 to 1970 (75% of guest nights). The next section will highlight why this was a convincing argument for the OeNB.

¹⁹ „Mittels einer in Ausarbeitung befindlichen neuen Berechnungsmethode sollen in Hinkunft die Devisenkurse für die Währungen der wichtigsten europäischen Handelspartner möglichst stabil gehalten werden.“ (OeNB, 1971b, No. 778, August 22; author's translation in the running text).

²⁰ The data were collected by Statistics Austria from customs offices (country of origin) on a monthly basis rather than by the country of the trade partner (balance of payments).

Second, the countries considered in the index consisted of all member states of the European Economic Community (EEC) except France, and all member states of the European Free Trade Area (EFTA) except Portugal. The primary data source (table 4.10 mentioned above) actually contained data for all EEC and EFTA countries plus the U.S.A., the countries participating in the Council for Mutual Economic Assistance (Comecon) and Yugoslavia. France was excluded because of the dual exchange rate it introduced in August 1971, according to Hochreiter (1975, p. 10), and/or because of its small share of total trade in goods, according to Schmitz (1972b, p. 151). The group around the Dutch guilder (Belgium, Luxembourg and the Netherlands) constituted the smallest weight (4.6%) among the countries considered in the Indicator. France would have commanded a share of only 3.4% of Austrian trade (author's calculations based on table 4.10). Portugal was not considered because of the small size of bilateral trade (0.7% of total trade in goods; author's calculations). The countries considered in the Indicator accounted for 66.6% of Austrian trade in goods. Even if France and Portugal had been considered, 30% of Austrian trade in goods at the time would not have been covered by the Indicator. Of this share, Eastern European Comecon member states accounted for about 11 percentage points, Yugoslavia for about 3 percentage points and the U.S.A. for about 4 percentage points. The Comecon countries and Yugoslavia were excluded from the Indicator because their currencies were not convertible and trade was largely based on

bilateral clearing, often in U.S. dollars. The U.S.A. was excluded because the U.S. dollar was the index base, and its inclusion would have had no effect other than reducing the weight of the currencies of the main trading partners which the OeNB wanted to focus on. A high weight of the U.S. dollar would have undermined the objectives of exchange rate realignment: stemming speculative capital inflows, preventing a wage drift due to labor emigration to West Germany and Switzerland and fighting the import of inflation via the inflow of U.S. dollars and higher prices of imports from the main trading partners. The rest of the world accounted for the remaining 10% of Austrian trade in goods.

Third, the currencies included are those of the countries in the basket except for Belgium, Luxembourg, Norway and Denmark. Luxembourg shared a currency with Belgium (OeNB, 1971b, No. 778, annex 1).²¹ Norway and Denmark were grouped together with Sweden in the Swedish crown (SEK) group (5.6%). The available documents do not provide the reasoning behind this decision, but presumably their individual trade shares were too small (Norway below 1%; Denmark 1.7%; author's calculations).

4 The politico-economic tensions created by Austria's reaction to the end of Bretton Woods and the emergence of the Indicator

The following section examines the argument that the OeNB developed the Indicator in response to opposition to its initial reaction to the end of Bretton Woods. What were the policy stances of the major stakeholders?

²¹ In addition, the Belgian franc was in any case pegged to the Dutch guilder.

4.1 Policy stances of major stakeholders in Austrian exchange rate policy

The broad consensus that had governed Austrian exchange rate policy after 1945 was seriously put to the test in August 1971. The policy stances of the major stakeholders were hard to reconcile:

- The Ministry of Finance and the representatives of exporters regarded the ATS appreciation of May 1971 as sufficient. They wanted to keep the ATS/USD exchange rate within the bandwidth of ATS/USD 24.51 to ATS/USD 24.99. The OeNB argued for a greater flexibility of exchange rates (OeNB, 1971b, No. 778).
- The Minister of Finance, Hannes Androsch, favored a dual exchange rate system (like the ones introduced in France and Belgium) – an approach which was rejected by the OeNB and the main opposition party.²²
- The Minister of Finance opposed managed floating, while the OeNB was in favor (Kurier, 1971b, August 23).

4.2 Chronology of the political deliberations before the reopening of the foreign currency market in Vienna

Some of the stakeholders of Austrian exchange rate policy proposed alternatives to managed floating based on the Indicator. This section provides a chronology of the political deliberations up to August 25, 1971, aiming to reconstruct the individual steps that led to the OeNB's response to the end of Bretton Woods.

The option of a simple DEM peg had already been rejected by the OeNB

on August 5, 1971, because of foreign policy concerns. Also the representatives of credit institutions in the General Council of the OeNB expressed a strong desire to avoid the impression of strong dependence on German economic and monetary policy.²³

On August 18, 1971, Austrian newspapers (Kurier, 1971a; Die Presse, 1971) reported that the Minister of Finance wanted to introduce a dual exchange rate regime. Following the examples of France and Belgium, Austria would distinguish between an ATS/USD exchange rate for trading in goods and services and an ATS/USD exchange rate for financial transactions. The OeNB opposed such a move as it would constitute a step backward in the process of multilateralism and financial integration. It would also conflict with the Articles of Agreement of the IMF (although the IMF had approved the dual exchange rate system for France). The substantial administrative burden would impede international payments (SMP, 1971b; OeNB, 1971b, No. 778).

On August 22, 1971, the Minister of Finance and the OeNB President met to find a consensus. No documentation of the meeting could be retrieved from the Austrian State Archives or the OeNB's archives. The position of the OeNB participants in the meeting had been agreed in a Governing Board meeting on the same day (OeNB, 1971b, No. 778): advocating the reopening of the foreign currency market in Vienna on August 24, 1971, a managed float against the U.S. dollar and stable exchange rates vis-à-vis the main trading

²² Kurier (1971a, August 25); Die Presse (1971, August 18); Arbeiterzeitung (1971, August 19); Wiener Zeitung (1971, August 24); Volkszeitung Kärnten (1971, August 25); Börse-Zeitung (1971, August 25).

²³ See SMP (1971b), Schmitz (2016b and 2016c). In the latter, Heinz Kienzl reported that the U.S.S.R. trade envoy in Vienna had voiced concerns regarding a peg of the Austrian schilling to the Deutsche mark and feared it would constitute a step toward the reunification of Austria and Germany.

partners. In its August 23, 1971, edition, the Austrian daily *Kurier* (1971b) reported on the meeting, suggesting that a consensus had been found and quoting the OeNB President: “The OeNB’s efforts are directed toward the smallest possible changes to exchange rates vis-à-vis trading partners.”²⁴

On August 23, 1971, the Minister of Finance presented the OeNB proposal in an extraordinary Cabinet meeting (Austrian Cabinet, 1971) in the presence of the OeNB’s executive committee. Like in May 1971, the ATS exchange rates vis-à-vis the main trading partners were to be stabilized by focusing on relatively stable ATS/CHF and ATS/DEM rates. The Minister of Finance stated that “[t]his would be practically identical to an average rate across European currencies.”²⁵ He also announced that the OeNB would fix the ATS/USD rate on August 24, 1971, within the bandwidth of ATS/USD 24.51 and ATS/USD 24.99 to ease the burden on exporters and the tourism sector.

Immediately after this meeting, the Federal Chancellor, the Minister of Finance and the OeNB’s executive committee met with the social partners (Austrian Cabinet, 1971). No documentation of this meeting could be retrieved from the archives of any of the participating institutions. However, indirect evidence suggests that the common proposal by the government and the OeNB was subject to fierce opposition from the FAI and the Chamber of Commerce.

As a consequence, on August 24, 1971, the OeNB added the Italian lira (ITL) and the pound sterling (GBP) to the Deutsche mark and the Swiss franc for calibrating the target value for the ATS/USD exchange rate (indirect evidence in OeNB, 1971b, No. 781). The likely reason for the broadening of the basket of currencies was that exporters feared that the Deutsche mark and the Swiss franc would appreciate further, which would have a negative impact on exports and tourism.

On August 25, 1971, the term Indicator appeared for the first time in an internal OeNB document (OeNB, 1971b, No. 781): “From now on, the calculation of the so-called Indicator covers about two-thirds of trade through the inclusion of the Benelux countries and three Scandinavian countries.”²⁶ This wording suggests that coverage of the narrower currency group (DEM/CHF/ITL/GBP) was still considered to be too low. The Deutsche mark and the Swiss franc had appreciated more than other currencies over the previous years, so that the reduction of their weights would address the concerns of the FAI and of the Chamber of Commerce. This also clarifies why the OeNB considered the high weight of Germany in the share of incoming tourism (75%) a convincing reason for basing weights calculation on trade in goods only, as discussed above. It would have strongly increased the weight of Germany even in a broader basket. In addition, the OeNB fixed the ATS/USD rate at 24.52 “[t]o fulfill the com-

²⁴ „Das Bemühen der Notenbank gehe dahin, sagte Dr. Schmitz, gegenüber den Handelspartnern möglichst geringe Änderungen der Wechselkurse zu erreichen.“ (*Kurier*, August 23, 1971b; author’s translation in the running text).

²⁵ „Das kommt praktisch einem Mischkurs aus den Währungen in Europa gleich.“ (Austrian Cabinet, 1971, p. 2; author’s translation in the running text).

²⁶ „Bei der Berechnung des sogenannten Indikators sind nunmehr durch die Einbeziehung der Benelux-Staaten und drei der skandinavischen Länder rund zwei Drittel der Außenhandelspartner (sic) berücksichtigt.“ (OeNB, 1971b, No. 781, p. 2; author’s translation in the running text).

mitment [of August 23] to the government and the social partners that the Austrian export industry would not be burdened further, as far as possible.”²⁷ Based on the OeNB internal estimates of the ATS/USD rate of 24.38 as of August 23, 1971 (OeNB, 1971b, No. 779), the fixing of the initial index value at ATS/USD 24.52 reduced the long-term appreciation effect by about 0.6% – a sizeable easing of the burdens on exporters. In addition, the OeNB reduced the costs of short-term hedging (via changes to the Gentlemen's Agreement), offered central clearing for long-term hedging via government U.S. dollar debt and took on the foreign currency risk from exporters through its daily market interventions (Schmitz, 1972b).

The chronology of the political deliberations shows that the introduction of a currency basket of more than two currencies, its final composition of ten countries and six currencies, and the initial index value emerged in response to criticism from representatives of the export industry and the tourism sector of the OeNB's initial proposal to revalue the ATS/USD rate based purely on the development of the DEM/USD and the CHF/USD rates. The OeNB adapted the method of implementation, but not the initial strategy it had communicated to the public for the first time on August 22, 1971, namely to keep exchange rate changes

as small as possible vis-à-vis trading partners. The OeNB framed the Indicator as the “operationalization” of an exchange rate policy it had decided on and communicated before the relevant method had been developed.

Little detailed internal OeNB analysis is available regarding the development of the Indicator. Nonetheless, it is likely that the introduction of a currency basket was inspired by an IMF staff paper on exchange rate indices (Hirsch and Higgins, 1970).²⁸ Ferdinand Hain, who presented the Indicator at the OeNB Governing Board meeting on August 25, 1971, routinely held close contact with the IMF, especially with Rudolf Rhomberg, a fellow Austrian, who served as head of the IMF Research Department. Fred Hirsch, also an Austrian, was a Senior Adviser there.²⁹

4.3 The Indicator after December 1971

The daily ATS/USD exchange rates³⁰ on the Viennese foreign currency market hardly deviated from the daily Indicator value (Schmitz, 2016a).

The Indicator composition and weights remained unchanged until June 22, 1972, when the pound sterling floated. The OeNB refined its interpretation of its legal mandate to avoid a conflict of interest between price stability and exchange rate stability vis-à-vis countries with higher inflation (namely to maintain the stability of the domestic purchasing power of the cur-

²⁷ „[Obwohl die heutige vorbörsliche Entwicklung des US\$ auf den wichtigsten europäischen Devisenmärkten eine deutliche Abwärtsentwicklung aufweist und die nicht mehr in Geltung befindlichen unteren Interventionspunkte fast überall unterschritten wurden, soll der \$-Kurs auf der Wiener Devisenbörse bei Eröffnung noch oberhalb des unteren Interventionspunktes liegen.] um der Zusage gegenüber der Bundesregierung und den Sozialpartnern Rechnung zu tragen, daß der österreichischen Exportindustrie keinen zusätzlichen Bürden auferlegt werden.“ (OeNB, 1971b, No. 780, p. 1–2; author's translation in the running text).

²⁸ Schmitz (2016b and 2016d).

²⁹ Hirsch and Higgins (1970) might have been prompted by the introduction of SDRs (see footnote 8) by the IMF in 1973, but no reference to SDRs is made therein.

³⁰ For details regarding the development of the ATS/USD exchange rate and ATS/DEM exchange rate from 1952 to 1999 see chart 1 and chart 2 in Nowotny (2007).

rency and its exchange rate relative to the stable foreign currencies; NBG 1955, Article 2 (3)). It argued that a currency that depreciated by floating was not stable, and therefore excluded the pound sterling from the Indicator. Otherwise, the ATS/USD exchange rate would have been pushed outside the bandwidth of 2.25% under the Smithsonian Agreement. The decision was alleviated by the fact that exporters bore few losses and some importers profited (raw materials often traded in pound sterling) (Socher, 1973). The Italian lira was dropped from the basket on March 15, 1973, when it floated. At that time the Swiss franc was also excluded for a period of two weeks when it appreciated too much and would have pushed the ATS/USD rate outside the bandwidth. To prevent the Deutsche mark weight from increasing too strongly, the OeNB added the French franc (FRF) to the basket after France had ended its dual exchange rate system on March 16, 1973.³¹ Moreover, as of that date the Danish crown (DKK) was included in the basket separately from the Swedish crown (SEK). As of September 17, 1973, the Belgian franc (BEF) was separated in the basket from the Dutch guilder (NLG).

As of March 1973, the Indicator consisted only of currencies that took part in the block floating around the Deutsche mark, such that Austria effectively – though not formally – joined that floating block. The dominant role of the Deutsche mark therein turned the Indicator value of the ATS/USD exchange rate into a close shadow of the DEM/USD exchange rate. As of July 13, 1976, the central rate for the Austrian schilling was oriented solely

toward the Deutsche mark, though no formal ATS/DEM peg was announced.

The OeNB kept the initial index value of ATS/USD 24.52 unchanged until March 16, 1973, when it rebased the index value as the ATS/USD market value on February 9, 1973.³² The OeNB further rebased the initial index value (1) on July 3, 1973, when the Deutsche mark and the Austrian schilling appreciated; (2) on May 17, 1974, when the bandwidth of the Austrian schilling increased to 4.5%, and (3) on July 10, 1975, when the French franc returned to the “snake in the tunnel,” i.e. the EEC exchange rate system in place from 1972 to 1979.

The interpretation, as of June 22, 1972, of a “stable currency” as a currency that does not depreciate triggered an upward drift of the Deutsche mark’s weight in the basket from 50.2% on August 25, 1971, to 63.4% on January 22, 1974. In combination with the block-floating of the European currencies in the basket, this led to Austria’s Deutsche mark orientation as of 1976 and to the emergence of the hard currency policy as of 1979 (Socher, 1996, Mooslechner et al., 2007).

5 Assessment of the new monetary policy strategy of August 1971

The OeNB’s new monetary policy strategy of August 1971 – in concert with other economic policy initiatives – proved successful overall, though its societal costs (e.g. in the form of subsidies for investment and exports) should not be ignored.

- The OeNB was able to maintain its exchange rate target. After the collapse of Bretton Woods, many coun-

³¹ The French franc was dropped from the basket again when it was forced to float and devalue on January 22, 1974.

³² February 9, 1973 was the last trading day before the U.S. dollar devalued by 10% on February 10.

tries targeted fixed exchange rates. However, most of them were forced to let their currencies float and eventually devalue them; only three were able to avoid involuntary devaluations (Austria, Hong Kong and Saudi Arabia; Streissler, 1998).

- Austria's macroeconomic performance after 1971 in terms of inflation, per capita GDP growth, the rise in the public debt-to-GDP ratio, and unemployment was very good by international comparison (Butschek, 1985; Hochreiter, 1981; Nowotny, 2007). Labor productivity grew faster than in Austria's major trading partner countries. Handler (1989) suggests that this was a result of the stability-oriented exchange rate policy due the competitive pressure it induced on exporting sectors.
- Austria did not experience a twin crisis when it liberalized its capital account and its financial sector, unlike many other countries (Kaminsky and Reinhart, 1999) such as Spain (1978), Denmark (1987), Norway (1989), Sweden and Finland (both 1991). Capital account liberalization was subordinated to exchange rate policy; i.e. when necessary the OeNB temporarily tightened capital account controls.
- Within Austria, the new monetary policy strategy was successful insofar as it supported coordination across different economic policy areas (Glück et al., 1992; Haberler, 1979; Guger, 1998). It did so mainly by subordinating other policy areas (fiscal, income, monetary, capital account and macroprudential policy) under exchange rate policy (or the exchange rate target, respectively). However, ex ante subordination was not perfect, and after 1973 wages increased faster than would have been compatible with the current account

situation (Butschek, 1985). In response, Austria implemented nine stability packages between 1972 and 1977, which were coordinated across policy areas, to address inflation and current account imbalances ex post.

- The new monetary policy strategy also carried societal costs. Straumann (2010) suggests that the Austrian response to relatively high real wage growth between 1973 and 1983 consisted not only of ex post stability packages. He argues that Austria also reduced labor immigration, hoarded labor in state-owned companies and subsidized investments and exports (as compensation for exporters). This caused direct fiscal costs, capital misallocation and an increase in nonperforming bank loans in the 1980s.

6 Significance of the Indicator within the overall monetary policy strategy

The following assessment of the Indicator takes the OeNB's accompanying measures as given. The OeNB underpinned its exchange rate target with a complex set of instruments to safeguard technical implementation. These instruments included the flexible adaptation of capital account liberalization, credit control agreements and the Gentlemen's Agreement, the monopolization of the ATS/DEM market, the prohibition for Austrian banks to short-sell Austrian schillings, and high foreign currency reserves relative to foreign holdings of Austrian schilling-denominated bonds (Streissler, 1998).

Despite its technical shortcomings (Hochreiter, 1975), the Indicator was a useful instrument for achieving the objective of stabilizing the Austrian schilling's exchange rate vis-à-vis the currencies of its main trading partners in terms of nominal effective exchange rates. The first internal OeNB assess-

ment of the Indicator on September 8, 1971, was positive and stated that the Indicator reduced the volatility of the Austrian schilling against the major trading partner currencies and increased volatility vis-à-vis the U.S. dollar (OeNB, 1971b, No. 782). On December 5, 1971, the Austrian government and the OeNB agreed that there was no need to change the policy stance (OeNB, 1971b, No. 792; Meeting of the Minister of Finance and the OeNB executive committee, December 6). The new parity agreed upon in the exchange rate realignment on December 22, 1971, was based on the Indicator, which an internal study found to be successful (OeNB President in APA, 1971, December 22). Over the medium term, it is interesting to note that despite a series of appreciations of the Austrian schilling against the U.S. dollar, the Austrian schilling's nominal effective exchange rate (as calculated in Hochreiter, 1981) only increased modestly until January 1973 (by 1.2%).

However, the strategy also generated losses for the OeNB due to currency appreciation versus the U.S. dollar, in which a large share of its reserves were denominated. Losses amounted to ATS 776 million (USD 33 million) from August 24 to November 30, 1971, and increased to ATS 2 billion by December 13, 1971 (OeNB, 1971b, No. 794). The OeNB planned to cover the costs out of its revaluation reserves without a reduction of fiscal seignorage (OeNB, 1971b, No. 792, annex).

The Indicator contributed significantly to the success of the new monetary policy strategy for three reasons:

First, the OeNB overcame the opposition to its initial policy stance on August 23, 1971, by presenting the Indicator as the operationalization of the two undisputed cornerstones of a stability-oriented exchange rate policy: (1) the OeNB's legal mandate (NBG 1955, Article 2 (3), "It shall ensure with all the means at its disposal that the value of the Austrian currency is maintained with regard both to its domestic purchasing power and to its relationship with stable foreign currencies.") and (2) the interpretation of the currencies of Austria's trading partners as (mostly) stable currencies. As a consequence, the key ingredient of the OeNB's reaction to Bretton Woods – "to keep the value of the Austrian schilling stable vis-à-vis the main trading partners" (OeNB, 1971d; OeNB, 1971e) – was largely undisputed as well. The representatives of the export industry and the tourism sector could not reject these cornerstones, but initially strongly opposed the sole orientation of the Austrian schilling toward the Deutsche mark and the Swiss franc. In response, the OeNB broadened the basket of currencies and framed the broader set as a sophisticated technical currency basket³³ that simply operationalized (1) and (2) above.

Second, the Indicator forced the political debate into a technical framework. Its technical sophistication and scientific rigor³⁴ lent credibility to that framework (Schmitz, 2016d). Critics

³³ A number of studies (inter alia Hochreiter, 1975) argue that the Indicator had technical shortcomings compared with more sophisticated nominal exchange rate indices. However, the OeNB did not aim to develop a highly sophisticated method. The level of sophistication just had to be high enough to fulfill the OeNB's requirements in terms of its discursive strategy in the political debate.

³⁴ The fact that it was inspired by academics and by a neutral international organization like the IMF could have lent additional weight to the Indicator. A similar strategy of international bond investors in London around the 1860s is described in Flandreau (2016).

of the revaluation could not simply reject the method as inappropriate or arbitrary. This discursive strategy in the political debate proved successful. The fiercest critics of the ATS revaluation of May 1971, the FAI, embraced the new monetary policy strategy of August 1971. In its first meeting on September 24, 1971, the FAI's newly founded Committee on Monetary Policy formally stated: "In principle, the industry embraces the temporary concept of August 20 (sic), 1971. It consists of the attempt to allow the Austrian schilling to move with the major European currencies (DEM, CHF, ITL, NLG, SEK (sic)) in their relationship to the U.S. dollar and to embrace the possibility of a slipping of the U.S. dollar."³⁵ The Chamber of Commerce developed its own currency basket to be able to challenge the Indicator in political deliberations (Socher, 1973). Its basket was much broader and included countries with nonconvertible currencies; the weights of the currencies that were considered more likely to exert appreciation pressure on the Austrian schilling (the Deutsche mark and the Swiss franc) were much lower. As of July 1973, the Indicator appreciated by 12.4% vis-à-vis the index of the Chamber of Commerce (Socher, 1973, p.108). Nevertheless, the OeNB reached its objective of moving the political debate onto a technical level, while preserving the broad political consensus regarding the fundamentals of the strategy. At the

other end of the spectrum of the social partners, the Chamber of Labour embraced the strategy, too: "It must be asserted that the exchange rate measures of the government and the OeNB turn out to be appropriate."³⁶ The first publication on the new strategy highlighted the politico-economic contribution of (managed) floating and, indirectly, of the Indicator: "The result of the realignment of exchange rates [as of December 22, 1971] were revaluations and devaluations with respect to the situation before August 15 and even more so with respect to the situation before May 10, [1971], that could never have been reached by way of negotiations."³⁷ The OeNB managed to overcome the politico-economic tensions between different stakeholders in Austrian exchange rate policy. Despite the conflicting views regarding revaluation and nonrevaluation, managed float versus fixed exchange rates or dual exchange rates, the OeNB preserved the broad consensus on exchange rate policy.

Third, the Indicator contributed to the international credibility and the broad societal backing of a stability-oriented exchange rate policy, alongside the OeNB's accompanying measures. The Indicator constituted a flexible and nontransparent policy rule (neither the composition of the basket nor the weights were publicly communicated). This seems to somewhat contradict the conventional economic wisdom that

³⁵ „Die Industrie steht grundsätzlich nach wie vor zu dem vorläufigen Konzept vom 20. (sic) August 1971. Dieses besteht in dem Bemühen, den österreichischen Schilling mit den wichtigsten europäischen Währungen (DM, sfr, Lire, hfl, SKr (sic)) in ihrem Verhältnis zum Dollar mitgehen zu lassen und ein Abgleiten des Dollar-Kurses in Kauf zu nehmen.“ (FAI, 1971a, October 21; author's translation in the running text).

³⁶ „Es muss festgestellt werden, dass sich die von der Bundesregierung und von der Nationalbank gesetzten Maßnahmen als richtig erwiesen haben.“ (Austrian Chamber of Labour, 1971; author's translation in the running text).

³⁷ „Das Ergebnis der Neufestsetzung der Wechselkurse waren gegenüber der Situation vor dem 15. August und noch mehr gegenüber der Situation vor dem 10. Mai Auf- und Abwertungen, die im Verhandlungswege nie erreicht werden hätten können.“ (Schmitz, 1972b, p. 290; author's translation in the running text).

monetary policy rules need to be simple and transparent to achieve their objective (Dorn, 1979; Hochreiter and Winckler, 1995). But within the framework of managed floating, this lack of transparency exposed potential speculative capital flows to a two-way risk. The OeNB did not announce a target value for the ATS/USD exchange rate or the Austrian schilling's exchange rate vis-à-vis any other foreign currency (ATS/DEM or ATS/CHF). As a consequence, there was no exchange rate target that could lend itself to a speculative attack. This, in turn, reduced the costs of maintaining the target. Governments are forced to devalue the currency when the societal costs of defending a target (that has lost credibility) become unsustainably high in terms of high interest rates, restrictive fiscal policy, capital account controls and high unemployment. Austria avoided such costs, which made it easier to preserve the societal consensus and the political resolve. Over time, Austria's stability orientation was noticed internationally and this increased the credibility of the chosen policy. Similarly, its economic benefits (i.e. exchange rate stability vis-à-vis the major trading partners) materialized and reinforced the political resolve and societal consensus within Austria. Eventually, the ATS/DEM peg became a reality without the OeNB ever formally committing to a fixed exchange rate vis-à-vis the Deutsche mark.

7 Conclusions

The present analysis shows that the Indicator was an ad hoc innovation in August 1971. The OeNB developed it in response to the criticisms of representatives of the export industry and the tourism sector to its initial proposal to revalue the ATS/USD exchange rate based on the development of the DEM/

USD and the CHF/USD exchange rates. The OeNB adapted the method of implementation but not its initial strategy, which it had already communicated to the public for the first time on August 23, 1971, before the Indicator was developed.

By implementing the Indicator, the OeNB forced the political discourse into a technical framework. This enabled the OeNB to maintain its initial policy stance of August 22, 1971, in the face of fierce opposition from exporters and the tourism sector in view of the transition from an export-oriented to a stability-oriented exchange rate policy. The OeNB managed to push through its policy stance despite the viewpoints of other stakeholders in Austrian exchange rate policy. It forged a consensus (1) on managed floating (rather than fixed exchange rates or dual exchange rates) and (2) on the revaluation of the Austrian schilling with respect to the U.S. dollar. In addition, the government shouldered some of the costs of this consensus in the form of compensatory measures for exporters and, more indirectly, through its general labor market policies, e.g. labor hoarding in state-owned enterprises. The consensus supported policy coordination across different economic policy areas, which in turn helped contain the societal costs such as high unemployment or currency crises.

Finally, the Indicator contributed to the international credibility of a stability-oriented exchange rate policy, in combination with instruments that deterred speculative attacks. Following the Austrian schilling's orientation toward the Deutsche mark as of 1976, Austria's hard currency policy emerged as of 1979 as a result of the OeNB's reaction to the end of Bretton Woods and the introduction of the Indicator.

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