

File- Monetary Policy Issues-Exchange Rate
Intervention – Part D

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Pages 41-57

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NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.

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October 21, 1987

Dr. Fabrizio Saccomanni
Banca D'Italia
Via Nazionale
Roma, Italy

Dear Dr. Saccomanni:

I am writing to you to ask your help in a project on the European Monetary System on which I am currently working together with Francesco Giavazzi of the University of Venice.

The aim of this project is to produce a book on the EMS, Limiting Exchange-Rate Flexibility: The Experience of the European Monetary System, that MIT Press has agreed to publish in 1988. The book brings together the work that we have been doing on the EMS in the past 4 years. Our effort is to restructure and integrate this work, so that it would be useful for a larger audience.

A central issue in discussing the EMS experience is the role played by foreign exchange market intervention. In the past we have used previously published statistics (averages) on foreign exchange market intervention by European central banks, in order to try to detect asymmetries in intervention rules. The enclosed paper illustrates--on page 11--the data we are looking for.

I fully understand the importance of confidentiality of these data: for this reason I do not ask to access the data directly, but would appreciate if a research assistant at the Bank of Italy could, at our expenses, perform the very few statistical tests we need. None of these tests, of course, can allow anybody to recover the original data.

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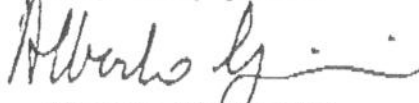
Fabrizio Sacconi
October 21, 1987
Page TWO

The statistics we are interested in are:

- a. A table similar to the one on page 11 in the enclosed paper;
- b. Regressions explaining rate-of-return differentials across European currencies, which include on the right hand-side foreign exchange intervention variables;
- c. Regressions explaining the rate of growth of domestic credit in various countries, which also include the foreign exchange intervention variables on the right-hand side.

I understand that our request might be rather unusual, but am sure you will appreciate the interest and importance of the questions we are addressing, and I hope you will want to support our research efforts.

Very truly yours,



Alberto Giovannini
John M. Olin Fellow

enclosure

First Draft:
January 1987
Revised:
April 1987

MODELS OF THE EMS:

IS EUROPE A GREATER DEUTSCHE-MARK AREA?

by

Francesco Giavazzi
Dipartimento di Scienze Economiche
Universita' di Venezia

and

Alberto Giovannini
Graduate School of Business
Columbia University

1. Introduction

Regimes of fixed exchange rates or of limited exchange-rate flexibility, like the ideal "target zone" proposal or the real European Monetary System (EMS) raise the question of symmetry. Who runs monetary policy and who sets exchange-rate parities? If exchange rates are determined exogenously by a mechanical rule, is--or should be--monetary policy run by one country or by all members of the system?

This paper tries to answer these questions with special attention to the experience of the EMS. Our interpretation of the data is that the EMS reproduces the historical examples of fixed exchange-rate regimes. Germany is the center country and runs monetary policy for the whole system. When the other countries are unable or unwilling to go along with Germany's monetary targets, they change their exchange rate. Capital controls allow them to gain limited independence from the burden of adjustment to international shocks. A

combination of foreign exchange intervention policies and domestic sterilization appears to free Germany from the burden of adjustment to intra-European portfolio shocks. The important implication of our results is that analyses of fixed or managed exchange rate regimes should explicitly address the effects of this asymmetry.¹

The paper is organized as follows. In section 2 we present the evidence on the EMS and we ask whether the data supports the view that the system is essentially a Deutsche mark area. In section 3 we discuss the two main reasons why international monetary systems tend to work asymmetrically: countries' relative size and the incentives to peg to a stable currency. Section 4 contains some concluding remarks. In Appendix A we describe the solution of the model used in section 3. Appendix B reports the sources of the data used in section 2.

2. Is the EMS an Asymmetric System?

In this section we discuss the empirical evidence on the EMS, and ask whether the data supports the view that the EMS is really a Deutsche mark area, i.e. a regime where countries other than Germany peg to the mark, and change the peg whenever parities are not sustainable.

We study two sets of data. Data on foreign exchange market intervention by the central banks of member countries,² and nominal interest rates.

2.a Evidence from Foreign Exchange Market Intervention

Table 1 reports the data on foreign exchange market intervention. We express cumulative intervention figures as percentages of total intervention by all countries in each subperiod.³ We look at two periods. The first, from January 1983 to March 1985 is characterized by a general appreciation of the

5-45
ar on an effective basis.⁴ The second period runs from April 1985 to April 1986, and is characterized by a downward trend of the dollar effective exchange-rate index.⁵ The three top panels of the table contain data on intervention at the margin of bilateral fluctuation bands (which is carried out in EMS currencies), on intramarginal intervention in EMS currencies, and on dollar intervention, respectively.

The rules of the EMS were designed with the explicit purpose of sharing the "burden of adjustment." Intervention at the margin--when two currencies reach the limit of the 2.25% bilateral fluctuation band⁶--is compulsory. It has to be carried out by both central banks involved, using each other's currency.

Further, the foreign exchange needed for intervention at the margin can be borrowed without limits or conditions from the partner central bank, under the "very short term financing facility." Table 1 shows that the two countries most involved in intervention at the margin were Belgium and France. Negative signs in Table 1 indicate a sale of foreign exchange by the central bank: for example the first figure for Belgium (-.554) indicates that the Belgian central bank did 55.4% of all marginal interventions carried out between January 1983 and March 1985. The sign is negative, indicating that during this period the Belgian franc frequently hit the bottom of the band relative to another currency in the system: this currency was often the French franc, as shown by the fact that over the same period the Banque de France did sizeable interventions (31.3% of the total) in the opposite direction. Notice that Italy, which enjoys a wider fluctuation band, never intervened at the margin.

The second panel reports data on intra-marginal intervention. Notice that in the periods that we report Germany has not kept positions in other EMS currencies for the purpose of intervention. This suggests that Germany might not intervene when the Deutsche mark is within the bilateral fluctuation bands

relative to the EMS partner currencies.

The other important piece of evidence on intramarginal intervention comes from the bottom panel of the table: intramarginal intervention is as significant in volume as intervention at the margin, and intervention vis-a-vis the dollar.⁷ The second panel in the table shows that the direction of intervention changed between the first and the second period. As we demonstrate and discuss in Giavazzi and Giovannini [1986a], between 1983 and 1985 the strength of the dollar tended to weaken the Deutsche mark within the EMS: all the other central banks in the system were purchasing Deutsche marks. Following April 1985, when the dollar started falling, the signs in the table change: a weak dollar tended to strengthen the DM inside the EMS; all other central banks (with the only exception of the Netherlands) intervened selling Deutsche marks.

All this seems to suggest that Germany never bought or sold foreign-exchange reserves in order to keep the EMS running, unless compelled by the rules of the system. The data in the third panel of the table, which reports dollar intervention, could however contradict this conclusion. The large dollar sales by the Bundesbank, especially during the period of dollar appreciation, might be motivated by the objective of avoiding the strains within the EMS associated with fluctuations of the dollar exchange rate.⁸

Table 1

Central Bank Intervention in the EMS

Jan 83 - Mar 85

Apr 85 - Apr 86

Marginal Intervention (in EMS currencies)

Germany	(-)0.093	(-)0.031
Netherlands	(-)0.039	(-)0.108
France	0.313	0.861
Italy	0.0	0.0
Belgium	(-)0.554	0.0

Intra-Marginal Intervention (in EMS currencies)

Germany	0.0	0.0
Netherlands	0.006	0.051
France	0.637	(-)0.647
Italy	0.073	(-)0.079
Belgium	0.283	(-)0.224

Intervention in US dollars

Germany	(-)0.645	(-)0.076
Netherlands	(-)0.009	0.092
France	(-)0.303	0.142
Italy	0.012	(-)0.592
Belgium	(-)0.030	(-)0.097

Summary

Intervention at Margin	0.196	0.429
Intra-Margin Intervention	0.196	0.250
Dollar Intervention	0.608	0.321

Source: See Scholl [1981], Micossi [1985], and Caesar [1986]. The data used to construct this table are cumulative intervention figures expressed in US dollars. Negative signs indicate foreign exchange sales by the central bank of the corresponding country. Each entry represents the share of intervention of that country in the total volume of intervention during the given interval, i.e. in the sum of the absolute values of the entries of that column.

TELEFAX 02.12.1987 118 36

COMITÉ DES GOUVERNEURS DES BANQUES CENTRALES
DES ÉTATS MEMBRES DE LA
COMMUNAUTÉ ÉCONOMIQUE EUROPÉENNE

Basle , 2nd December 1987

Banque Nationale de Belgique

A l'attention de M. Bussers

Danmarks Nationalbank

A l'attention de MM. Dalgaard, Fosgaard

Deutsche Bundesbank

A l'attention de M. Fischer-Erlach

Bank of Greece

A l'attention de MM. Marathakis, Pliatsikas

Banco de España

A l'attention de MM. Linde, Gil

Banque de France

A l'attention de MM. Marillia, Redouin

Central Bank of Ireland

A l'attention de M. Daly

Banca d'Italia (Telefax No 6-47 92 32 672)Nederlandsche Bank

A l'attention de M. Brockmeijer

Banco de Portugal

A l'attention de M. da Costa Pinto

Bank of England

A l'attention de M. Gill

Is f. intro?
No
Denis
as a fund principle

You may recall that at the meeting of the "Dalgaard Group" which took place at the Banca d'Italia in Rome on 23rd and 24th October 1987, Dott. Saccomanni distributed a copy of the attached letter from Professor Giovannini of the National Bureau of Economic Research, Cambridge, Massachusetts. This letter contains a request for data on interventions by EMS central banks to be used in a research work on the EMS. This question will be briefly raised at the "monitoring meeting" on Monday morning 8.00 a.m. in order to know the opinion of the central banks and to enable Dott. Saccomanni to prepare a reply to the request.

Kind regards,

G. Morelli

Attachment: 7 pages



MAMC: DZ

FROM: H C GOODMAN
DATE: 14 January 1988

MISS O'MARA

cc: Mr Peretz
Mr Walsh
Mr Grice
Mr Hyett - T Sol

TRANSACTIONS IN SDRs WITH THE IMF

I spoke to Mr Walsh who says he would be very pleased if this change were made. In addition I have spoken to Mr Hyett who says that the proposed system will meet the requirements of section 3(1)(b) of the EEA Act, but suggested there was a propriety point and so I have minuted Sir Geoffrey Littler. I do not expect him to any objections and attach a draft response for you to send to Mr Foot on the assumption that he agrees also.

H C Goodman
H C GOODMAN

DRAFT LETTER TO:

Michael Foot Esq
Bank of England
Threadneedle Street
LONDON
EC2R 8AH

TRANSACTIONS IN SDRs WITH THE IMF

Thank you for letter of 29 December setting out the proposal from the IMF to move over towards a semi-automatic basis for transactions with the Fund in SDRs. Given the wider policy considerations and the current high level of liquidity of our Reserves, we are content for you to agree to the Fund's request as long as all the conditions which you proposed on page 3 of your letter, to limit the side-effects of the scheme are met.

The Treasury Solicitor is satisfied that the requirements of the Exchange Equalisation Account Act will be met and we are informing Sir Geoffrey Littler as Accounting Officer of the EEA of the proposal.

For the record we are not sure if the analysis on page 2 of your letter is quite correct. If the result was to change our net supply of sterling, then funding would be triggered

to offset it, within our existing rule. Thus, there would be no necessary effect on the size of the bill mountain. In any case such effects would be negligible.

We would also be pleased to receive quarterly reports from you on these transactions.

MISS M O'MARA

FROM: J W GRICE

DATE: 18 January 1988

MS GOODMAN

cc Miss O'Mara
Mr Polin

File: MAMC D2

RELEASING STATISTICS ON INTERVENTION

You spoke to me about Mike Foot's letter to Miss O'Mara of 13 January and urged the advantages of agreeing to release the intervention data, via safe intermediaries, to the two Italian academics. Even so, my own inclination would be firmly against doing so.

2. I agree that because academic research might teach us something, we should have a definite reason for not releasing data and not just a general preference for secrecy. But:

a) because of the confidentiality of the data, the regressions would have to be done blind. Modern econometric doctrines suggest that the results of running mechanical regressions on unseen data are likely to be at best useless and at worst seriously misleading:

b) I doubt the quality of the researchers concerned. I know nothing of Giovannini but I do know Giavazzi and I am profoundly unimpressed by his work;

c) like Mr Foot and Miss O'Mara, I attach weight to not creating a precedent we might later regret. Generally, the TES has been quite robust in not supplying unpublished data to academics even when it has been less sensitive than in this case. We will not be thanked by EA/MP for creating a precedent here.

3. So, subject to your tracing precedents on the files, I am in the Foot/O'Mara camp (and even if you do find precedents I am not sure they are not best forgotten).

JWG

J W GRICE



53

WAMC : DZ

H M Treasury
Parliament Street London SW1P 3AG

Switchboard 01-270 3000
Direct Dialling 01-270 4699

M D K W Foot Esq
Gold and Foreign Exchange Division
Bank of England
Threadneedle Street
LONDON
EC2R 8AH

18 January 1988

Dear Michael,

TRANSACTIONS IN SDRs WITH THE IMF

Thank you for your letter of 29 December, telling us of the IMF's request that we should stand ready to buy SDRs from or sell SDRs to the Fund on a semi-automatic basis.

As I told you last week, given the current size of the reserves and the wider policy considerations involved we are content for you to agree to the Fund's request, provided all the conditions set out on the third page of your letter are met. We note that you expect the use of sterling to be extremely limited and that in practice, we could opt out of the scheme at any time, if we found it was posing problems for us.

For the record, we are not sure if the analysis on the second page of your letter is quite correct. If the result was to change our net supply of sterling, then funding would be triggered to offset it, within our existing rule. There would thus be no necessary effect on the size of the bill mountain. But in any case, such effects would be negligible.

We look forward to receiving regular reports from you on the volume of transactions under the scheme.

I am copying this letter to Charles Enoch and Harry Walsh

Yours sincerely,

Margaret

MISS M O'MARA

9/58

Mr Grace

File⁵⁴



H M Treasury
Parliament Street London SW1P 3AG

Switchboard 01-270 3000
Direct Dialling 01-270 4699

Mr Grace
Mary Hanks clearly
who've looked at
the Taylor article
has not done it
read it!

M D K W Foot Esq
Gold and Foreign Exchange Division
Bank of England
Threadneedle Street
LONDON
EC2R 8AH

D2

Mon
26/1

25 January 1988

RELEASING STATISTICS ON INTERVENTION

Thank you for your letter of 13 January.

As you say, it looks as though the Italian proposal should not raise any problems of confidentiality for us (though, by the same token, regressions done blind are likely to be pretty useless, if not seriously misleading). Even so, I very much share your concern about setting a precedent if we were to supply the data the Italians have requested.

x | We have checked through our files and have only tracked down two instances where statistics on intervention may have been provided to outsiders in the past.

x | First, it seems that the main central banks (US, Japan, Germany, France, Canada and the UK) supplied data in confidence to the Jurgenson Group on foreign exchange market intervention. The Group itself was, of course, composed entirely of Finance Ministry and Central Bank officials but the study was subsequently published. Second, Peter Spencer published an article on intervention in the Journal of Political Economy in October 1985, written while he was on secondment from the Treasury at Nuffield. For data, he seems to have drawn an earlier work by Dean Taylor, published in the JPE in April 1982. We have not been able to discover the source of Mr Taylor's information.

Despite this, I should still want to oppose the Italian request but given the strong German interest in the proposal, think we could leave it to the Bundesbank to make the running.

Miss O'Mara

your letter,

I am sure that this is the right line.

Just to be clear about x, Peter Spencer's

contention was that Taylor had used the wrong statistical test. So he
deliberately used the same data as Taylor to show that

MISS M O'MARA

FROM: H C GOODMAN

DATE: 25 January 1988

- 1. MR PERETZ
- 2. SIR G LITTLER

cc ~~Mr Grice~~
Miss O'Mara

INVESTMENT OF THE RESERVES

MAMC: D2

I attach a draft letter for you to send to Mr George, outlining the main decisions taken at last week's meeting.

I am sorry the typing of this draft is not very good, but in the interests of speed I am sending this on with one or two manuscript corrections.

H C Goodman
H C GOODMAN

5/66

57/88

DRAFT LETTER TO MR E A GEORGE

INVESTMENT OF THE RESERVES

I am writing to confirm the decisions taken at last week's meeting. A more detailed note of the meeting will be circulated separately.

We discussed the future path of exchange rates and agreed that the dollar is likely to fall further, and that any movements will probably be sudden and sharp. Furthermore, I agreed with your suggestion that the Yen is likely to rise less than the D-mark.

In the light of this we agreed your proposal to switch some \$1½-2 billion dollar holdings first into Yen and then into D-mark, at current exchange rates depending on market conditions. We will of course need to inform the Bundesbank and Bank of Japan of any large transactions. We agreed that subsequently if the dollar fell below DM1.55 and Y120, you should lengthen the dollar position by some \$1 billion.

We agreed that you should acquire a french franc ~~and~~ portfolio and, as circumstances allowed, further ^{eu} ~~ence~~ deposits. It is clearly necessary to reduce our bank exposure even though the position has improved, since the end of last year. Except insofar as it is necessary to tackle this exposure problem we agreed not to shorten our dollar position, but to lengthen the D-mark position.

One factor which will clearly influence our room for manoeuvre is the decision on whether or not to call the \$2½ billion FRN in October, we will need to consult the Chancellor in the late spring, when we also take his mind on the question of a Sovereign Note **I**ssue.

I will report to the Chancellor on our gold holdings.

We discussed how to approach the Germans on their intentions for the operation of withholding tax as far as sovereigns are concerned. We agreed that the Bonn Embassy should acquire the details and I would speak to Teitmeyer, if there is a suitable opportunity, to avoid the misunderstandings, which arose in 1978.

We are all agreed that we need to ensure we have ^a information system which measures the profitability and costs of Reserves management. The PAC may well wish to enquire into this again. The systems you have established to date provide this as far as interest-rate decisions are concerned, but further work is needed quickly on the exchange rate side, which you promised to undertake.

As I told you the NAO are concerned at the way the EEA accounts are certified. We ran over the options for improving the position, so that they can be assured the audit is satisfactory. We agreed that it was now too late for changes to be made to the 1987-88 accounts. We, here, will seek further information on their precise needs, but in principle their concerns are ^{reasonable} ~~removable~~ and we can explore whether they would be met best by an external auditor or by developing the relationship between the NAO and the internal auditor.

SIR G LITTLE