

Organizing Foreign Exchange Intervention in the Euro Area*

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Abstract

Scholarship on European integration has debated the external character of the monetary union extensively. This article examines the establishment of the institutional arrangements for foreign exchange intervention and the policy-making surrounding the market operations of autumn 2000 – the only case to date of euro area intervention in currency markets. Drawing on elite interviews of officials in European institutions and international organizations, among other sources, it specifies the division of labour between the European Central Bank, Eurogroup and other European actors. The article concludes that (1) the inter-institutional understanding within the euro area gives substantial but not complete latitude to the ECB, (2) the understanding is susceptible to renegotiation over time and (3) economic divergence within the euro area could threaten the ability of the monetary union to act coherently externally.

Introduction

The signing of the Maastricht treaty in February 1992 generated a debate between scholars over the character of the euro area as an external actor and

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its impact on international monetary relations.¹ The exchange rate policy of the euro area and the institutional arrangements by which it would be made were prominent among the issues addressed in this literature. The balance of authority between the European Central Bank (ECB), on the one hand and the finance ministers of the euro area, on the other hand, was the central institutional question. Analysts on one side of the debate anticipated that the euro area could adopt elements of the traditional 'French model' of decision-making – in which government leads the central bank in policy-making with respect to the exchange rate – which could give substantial weight to international competitiveness of European producers (Bismut and Jacquet, 1999; and with a somewhat different rationale, Artus, 2000). Analysts on the other side of the debate anticipated adoption of the 'German model' – in which the central bank takes a stronger role – and predicted that the external value of the euro would be treated with 'benign neglect' (see, for example, Bergsten, 1997a; Alogoskoufis and Portes, 1997; Bénassy-Quéré *et al.*, 1997; Cœuré and Pisani-Ferry, 1999). Adoption of the French model was generally thought to carry better prospects for euro area co-operation within the Group of Seven (G-7) than adoption of the German model.

The first two years of the monetary union provides a critical test for assessing which model has been adopted. Tensions between governments and central bank officials were high at the launch of the euro. Nonetheless, during 1999 and 2000, euro area authorities conducted extensive negotiations among themselves over the institutional arrangements for deciding on foreign exchange intervention, conducting such operations and communicating them to the public. During September and November 2000, they intervened in the foreign exchange market to support their new currency. These episodes mark the first and only interventions since the formation of the monetary union and the September episode is the only instance to date of operations co-ordinated with the G-7. The 1999–2000 case is thus critical for understanding the processes and institutions of external monetary policy of the euro area and, by extension, transatlantic and G-7 monetary co-operation. The case also sheds light on the role that the euro area is likely to play in the present global conflict over current account imbalances and changes in exchange rates that will be necessary to resolve them.

This article reviews the institutional arrangements for exchange rate policy within the euro area and the decisions to intervene during autumn 2000. It

¹ Broad treatments of the external policy of the euro area include Kenen (1995); Henning (1997, 2000); Bergsten (1997a, pp. 83–95); Masson *et al.* (1997); Eichengreen and Ghironi (1998); Bénassy-Quéré *et al.* (1998); Deutsch (2000); Frieden (2000); Lorenzen and Thygesen (2000); Henning and Padoan (2000); Cœuré and Pisani-Ferry (2003); McNamara and Meunier (2002); Cohen (2003); Padoa-Schioppa (2004); Posen (2005); Truman (2005); and Kaltenthaler (2006).

examines the efforts of euro area policy-makers to define the roles of their institutions in intervention decision-making, specifies their inter-institutional understanding, which has heretofore been mostly confidential, and the convergence on the decision to intervene in 2000. In addition to documents and press accounts in the public record, the analysis draws on 40 interviews conducted by the author with officials and former officials of finance ministries and central banks in Europe and the United States, as well as officials of European institutions and international organizations, during 1999–2006.

I. Dilemmas of Institutional Design

When designing decision-making arrangements for exchange rate policy, institutional architects face a general dilemma when locating responsibility between the finance ministry and the central bank. On the one hand, exchange rate policy is the monetary dimension of foreign or financial policy, the province of governments, which implies a strong role for the government. On the other hand, it is also the external dimension of monetary policy, which would imply primacy for the central bank. National legislation specifying the responsibilities of these bureaucracies typically focuses largely on their domestic tasks and leaves their role in exchange-rate policy relatively vague. So, the authority to make decisions, conduct operations and issue declarations about exchange rates is often established instead by patterns of practice and precedent and non-legal understandings between central banks and finance ministries. Those understandings, largely opaque to outsiders, are occasionally renegotiated as circumstances change.

States have located the balance of responsibility between their central banks and finance ministries differently. The United States, Britain and Japan vest leadership on intervention in their finance ministries, as did France before it adopted the euro. This choice was based on several rationales. Finance ministers are either elected or directly responsible to elected officials, responsible for other policies that affect the exchange rate and that should be co-ordinated with it (such as fiscal and financial policies), and shoulder the fiscal consequences of capital gains and losses on foreign exchange reserves, among other reasons. Finance ministers also present and defend exchange rate policy to their legislatures (see, for example, Destler and Henning, 1989). Other countries, however, notably including Germany prior to the monetary union (Henning, 1994; Kaltenthaler, 1998; Heisenberg, 1999; Loedel, 1999), establish a balance that favours the central bank.

With the formation of the monetary union, the responsibility for exchange rate policy passed along with monetary policy from Member States to the

euro area and Member States undertook the solemn obligation to adhere to the common policy.² The architects of the monetary union thus grappled with the allocation of powers between the European institutions.

The institutional landscape over which external monetary authority would be distributed differed considerably from the national level, however. Foremost among these institutions was of course the European Central Bank, which along with the national central banks of the countries that adopted the euro will be called the 'Eurosystem' here. The finance ministers of the euro area countries comprise the Eurogroup, a subgroup of Ecofin, the configuration of the Council that includes all of the finance ministers in the European Union. The central banks and finance ministries send deputies to the Economic and Financial Committee (EFC), the successor to the Monetary Committee, of which the Euro Area Working Party gathers exclusively the officials from within the monetary union. The European Commission serves as the guardian of the treaties and initiator of legislation, as in other areas. The European Council, composed of the heads of government of all EU Member States, completes the list of institutions with potential involvement in euro area exchange rate policy.

The legal framework established by the Maastricht treaty addressed several specific questions. The objective of both monetary and exchange rate policy was 'to maintain price stability and, without prejudice to this objective, to support the general economic policies in the Community' (Article 4). Formal exchange rate agreements, which must respect internal price stability, are the province of the Council (Article 111, paragraph 1). In the absence of a formal agreement, the Council can issue 'general orientations' to the ECB with respect to exchange rates, although these too must respect domestic price stability (Article 111, paragraph 2). The Council decides the external representation and arrangements for negotiating external monetary accords as well as the position adopted within such negotiations by qualified majority.³ Under each of these procedures, the Council acts on the initiative of the Commission, or on the initiative of the ECB in the case of formal agreements, and must consult the ECB.⁴ Because only members of the euro area cast votes on exchange rate matters, the Eurogroup effectively acts for the Council under these provisions.

² Consolidated Treaties of the European Union, Article 4, reproduced in Office of Official Publications of the European Communities (2002). The precise language is 'a single monetary policy and exchange-rate policy'. The following references denote articles in this source.

³ Article 111, paragraphs 3 and 4. The Nice treaty changed the decision rule for external representation from unanimity to qualified majority.

⁴ For analysis of these provisions, see Kenen (1995); Henning (1994, 1997); Smits (1997, pp. 367–453); European Commission (1997); Padoa-Schioppa (1999); Hahn (2000); and Kutos (2001).

For its part, the Eurosystem was specifically empowered to hold and manage foreign exchange reserves and conduct foreign exchange operations. Although a substantial fraction of foreign reserves would not be pooled, the Eurosystem would ensure that those reserves remaining in the hands of national central banks did not interfere with exchange rate policy.⁵

While the Maastricht treaty established several of the important elements of the legal and institutional framework for external monetary policy, it nonetheless left unclear precisely how the overall policy would be decided under a regime of managed floating and implemented in the absence of general orientations – precisely those conditions that would apply during the early years of the monetary union. Would the Eurogroup or the ECB decide whether the exchange rate had moved too far? How would they come to that decision? Who would issue public statements on the exchange rate and how would the content of those statements be determined? Would the Eurogroup or the ECB decide whether, when and at what rate the ECB would conduct foreign exchange operations? Would the ECB, national central banks, or both conduct these operations? How would co-ordination between the Eurogroup, Eurosystem and Commission take place? Notwithstanding further efforts to clarify institutional roles (e.g. European Council 1997), these questions largely remained unanswered at the launch of the euro.

These ambiguities reflected continuing differences over the organization of exchange rate policy, which in turn stemmed from the more central conflict over the domestic price-stability orientation of monetary policy and the independence of the ECB. Stability-oriented governments wanted to prevent the ECB, whose independence had been won through hard-fought bargaining, from being constrained by the Council through exchange rate policies. Others, having acceded to ECB independence and the principle of domestic price stability, resisted giving yet more ground to the ECB on exchange rate matters.

Although institutional design of external monetary policy is sometimes portrayed as a simple choice between targeting the exchange rate and targeting internal price stability, nonetheless, the actual choices are more varied and complex. Under some circumstances – such as when the exchange market is driven by herd behaviour and has become disconnected from underlying economic fundamentals and when private expectations are easily swayed – authorities can reverse exchange rate misalignments without altering

⁵ Protocol on the Statute of the European System of Central Banks and the European Central Bank, Articles 3, 6, 23, 30, reproduced in Office of Official Publications of the European Communities (2002).

monetary policy.⁶ It is thus possible to give finance ministers a role in exchange rate policy without impinging on internal price stability or the ECB's independence with respect to monetary policy – the possibility foreseen by the authors of Article 111, paragraph 2. The principal external policy question facing the monetary union during 1999 and 2000 was whether flexible exchange rates – which were generally accepted – would be subject to some degree of management, without compromising internal price stability, or be allowed to float completely freely. If there were to be any degree of management, the practical institutional questions had to be addressed.

II. Launch and Disarray

From autumn 1998 until autumn 1999, officials within the euro area clashed publicly over the merits of exchange-rate stabilization and issued contradictory statements about currency movements. These conflicts demonstrated the inadequacy of their preparations on the international side of the monetary union and threatened to make a mockery of their commitment to a common external policy. Although the interventions in autumn 2000 did not threaten domestic price stability or the independence of the ECB, moreover, conflicts over monetary policy during the transition to monetary union complicated the development of the exchange rate policy-making machinery.

German Target-Zone Proposal

Even before the new currency was created, the unitary nature of the single exchange rate policy was challenged by the election of a new, SPD-Green government in Germany, led by Chancellor Gerhard Schröder and Oskar Lafontaine, 'super-minister' with a portfolio including the ministry of finance. At their joint press conference after the election, Schröder and Lafontaine announced their desire to institute target zones for the new European currency and the dollar, among other currencies (Atkins, 1998). True to his word, Lafontaine raised the matter as chairman of the finance G-7 in a meeting in Petersberg, Germany, in February 1999.

The views of other euro area Member States on the target zone proposal varied. French Finance Minister Dominique Strauss-Kahn said the proposal was 'a good one', but stressed the importance of advancing the goal of exchange rate stability in a practical way (*Financial Times*, 1999). Other finance ministers were quite sceptical. But the ECB was unreservedly hostile

⁶ See, for example, Dominguez and Frankel (1993); Williamson (2000); Sarno and Taylor (2001); Taylor (2003); Fratzscher (2004); Kubelec (2004).

to the target zone proposal, having specifically disavowed targeting any exchange rate level (Norman and Barber, 1998; Munchau, 1998a; European Parliament, 1999).

The Schröder/Lafontaine announcement had not been co-ordinated with other euro area governments. Although he also served as chair of the Eurogroup during the first half of 1999, Lafontaine did not have a Eurogroup mandate to propose target zones as a euro area position at the finance G-7. This was not how the new euro area was supposed to work – one key member publicly declaring its commitment to a new policy and expecting the others and the European Central Bank to follow.

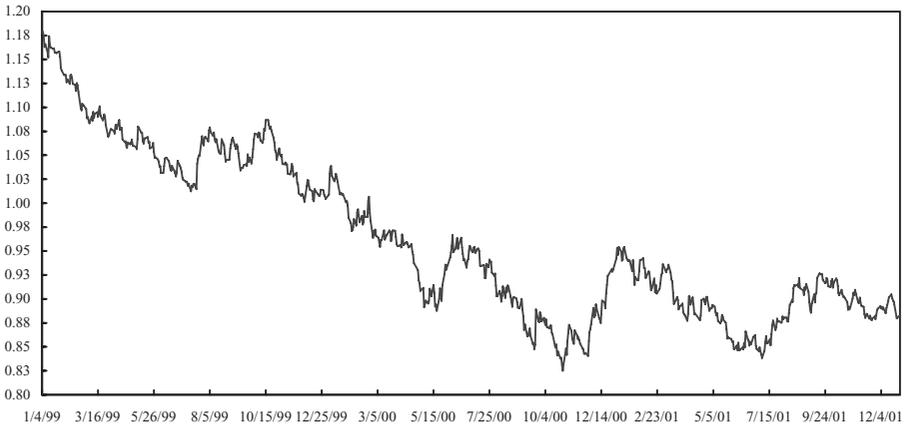
The new German government further poisoned its relationship with the ECB by Lafontaine's aggressive advocacy of interest rate cuts to stimulate European growth and employment, which struck a sympathetic chord with some of the other governments that were joining the euro area (see, for example, Munchau, 1998b). Although these governments denied trying to pressure the new central bank, whose independence was enshrined in the Maastricht treaty, they supported a substantive policy dialogue with the ECB that the latter feared could nonetheless effectively constrain monetary autonomy (*Extel Examiner*, 1998). The ECB won this confrontation, deflecting proposals for formal dialogue and Lafontaine resigned in March 1999. The coupling of advocacy of interest rate cuts to that of target zones nonetheless sensitized ECB officials to the danger that governments might use exchange rate policy to limit the central bank's room for manoeuvre on monetary policy.⁷ Coming only shortly after he was forced to agree not to serve out his full term as ECB president, as a condition for appointment, Willem (Wim) Duisenberg was acutely wary of political attempts to constrain the new central bank.

Cacophony

On the first trading day in Europe after the creation of the euro, 4 January 1999, the new currency opened at \$1.17 – close to economists' estimates of its long-run equilibrium value.⁸ Increases in productivity, stock market prices and sustained overall growth in the United States compared favourably to those in the euro area in early 1999. Rather than appreciating, as had been

⁷ If Lafontaine intended to use target zones to extract a more accommodating monetary policy from the ECB, he would have been frustrated. In the event, depreciation of the euro against the dollar during 1999 and 2000 would have required higher rather than lower European interest rates if a target zone arrangement had been in place.

⁸ Estimates of the equilibrium exchange rate generally fell in the range of \$1.13 to \$1.27 per euro. See Lorenzen and Thygesen (2000), especially Table 1; Driver and Wren-Lewis (1998); Chinn (2000); and Bergsten and Williamson (2004).

Figure 1: US Dollar/Euro Exchange Rate, Daily 1999–2001^a (Dollars per Euro)

Source: European Central Bank.

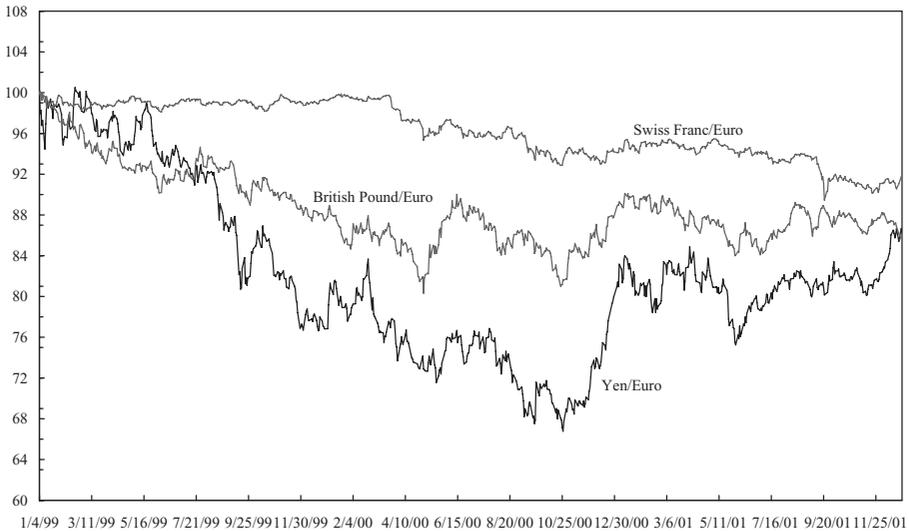
Note: ^a Initial observation 4 January 1999; final observation 28 December 2001.

anticipated by many analysts,⁹ therefore, the euro began to depreciate almost immediately. This depreciation was the beginning of a long, steady, but relatively orderly decline in value against a broad set of currencies through 1999 and the first three quarters of 2000 (see Figures 1 and 2).

As in the case of Member States' positions on the target-zone proposal, European officials were similarly inconsistent in their public statements with respect to the exchange rate. The German and Belgian governments, for example, made no secret of their contentment with the weakness of the euro (e.g. Brogan, 1999; *The Independent*, 1999). French finance minister Dominique Strauss-Kahn offered encouraging comments with respect to the euro and some members of the central banking community, such as Bundesbank President Hans Tietmeyer, defended the euro more forcefully (Hamilton, 1999; Beattie and Swann, 1999). By contrast, ECB President Duisenberg refused to articulate a strong position, saying only, 'I am not going to express myself as being concerned or not concerned [. . .] I am inclined to play it down' (Brogan, 1999). The cleavage between complacency and concern thus ran through both the Eurogroup and Eurosystem.

In June 1999, the cacophony itself had become the focus of press attention and seemed to be contributing to euro depreciation. German Finance Minister Hans Eichel, chairman of the Eurogroup, urged a 'vow of silence' on exchange

⁹ See, for example, Bergsten (1997b); Alogoskoufis and Portes (1997); Rosecrance (2000); Mundell (2000); and Cooper (2000).

Figure 2: Euro Exchange Rates, Daily 1999–2001^a (Index, 100 = January 1, 1999)

Source: European Central Bank.

Note: ^a Initial observation 4 January 1999; final observation 28 December 2001.

rates upon his fellow finance ministers in deference to the ECB president (*The Irish Times*, 1999). Chancellor Schröder tried to reinforce this effort during the Cologne summit in early June and even reduce the number of statements of heads of government, but was forced to acknowledge that '[. . .] it hasn't been agreed. There are a lot of people involved and I'm not sure they'll all do the right thing' (Traynor, 1999; *The Irish Times*, 1999; Duncan, 1999).

The absence of discipline among European officials with respect to statements about the exchange rate and the differences in the individual views had become abundantly clear by mid-1999 – the high-water mark for declaratory cacophony on exchange-rate policy. Euro area officials simply had not worked out (a) who would talk about the rate and (b) how the authorized officials would co-ordinate their statements.

III. Institutional Arrangement

European officials were aware, some more keenly than others, that conflicting statements about the weakness of the euro breached the commitment to a common external policy and damaged the credibility of the monetary union. Better co-ordination of officials' signals to the markets was clearly necessary.

The weakness of the euro also highlighted the need to specify the institutional procedures by which officials would decide and conduct foreign exchange interventions under managed floating.

During 1999, therefore, officials in the Eurosystem, Eurogroup and finance ministries and central banks of Member States sought to clarify these arrangements. Their negotiations, which were sometimes easy, sometimes painstaking, took place within the formal bodies, such as in the Economic and Financial Committee, as well as bilaterally, such as between the president of the Eurogroup and the president of the ECB. The Director of the French Treasury, Jean Lemierre, who served as chairman of the EFC and acted on behalf of the Eurogroup chairman, played a leading role in defining these arrangements. Lemierre's counterparts at the ECB included Tommaso Padoa-Schioppa, Member of the Executive Board and Christian Noyer, Vice President, both of whom acted on behalf of ECB President Duisenberg and the Governing Council.

Early in the process, these officials decided that it was unlikely to be productive to negotiate over institutional prerogatives in a legalistic or abstract way and did not use Article 111 as primary guidance for their discussions. Both those officials preferring the French model and those preferring the German model agreed that the Article 111 text, while laying down some key parameters, provided little guidance on institutional prerogatives specifically on foreign exchange operations in the context of a flexible exchange rate regime. Moreover, they wished to avoid the deadlock that the legal focus on the Maastricht provisions helped to produce.¹⁰ Their discussions focused instead on the practical questions of who should speak publicly about the exchange rate, decide on interventions in principle, decide on intervention details, draft communiqués and negotiate with international partners.

The fact that the relevant political authority is, of course, not a single minister but the Eurogroup complicated the assignment of responsibilities in three ways. First, the balance of authority between central banks and governments on exchange-rate policy had differed at the national level; the Community could not create strong authority for the finance ministers collectively in the Eurogroup when that authority did not exist for some of the individual finance ministers at the national level. Second, the group as a whole must come to agreement and might require consensus when doing so. Consensus-building takes time, whereas exchange markets can move rates quickly. Consensus and even a qualified majority might be altogether impossible to achieve. Third, the Eurogroup requires a chairman with a mandate to

¹⁰ Not-for-attribution interviews with European officials, Brussels, October 2003, Washington and Frankfurt, May 2005.

co-ordinate with the ECB and third-country monetary authorities. But, at that time, the chair of the Eurogroup rotated usually every six months, between small countries as well as large and had no external mandate. Under those circumstances, it was impractical to vest the Eurogroup with the same decision-making authority that had been vested in some of the finance ministers of Member States prior to EMU, which naturally favoured the ECB and the Eurosystem.

The officials of the Eurogroup, the full Ecofin and the Eurosystem reached an understanding on these questions – at least partially and tentatively – at an informal Ecofin meeting in Turku, Finland, in September 1999. This understanding was clarified at another Eurogroup meeting in early June 2000 in Luxembourg. Their consensus, the details of which were confidential, addressed decisions on market operations, consultation and communication. The Eurosystem, meanwhile, addressed internally the trading mechanics by which foreign exchange intervention would be conducted.

Decisions

The understanding reached at Turku, and clarified subsequently, established three points. First, the Eurosystem would decide the timing, level and amount of foreign exchange intervention. Partly by default and partly by the attraction of the German model, therefore, the European Central Bank was recognized as being ‘solely competent’ for deciding on intervention. Finance ministers agreed that it would not be appropriate to attempt to force or instruct the Eurosystem to intervene. Second, however, intervention would take place under an understanding with the Eurogroup on action in principle, arrived at in advance. Third, when conducting operations, the ECB would give notice to ministers.¹¹

Finance ministers and Eurosystem officials agree that the Eurosystem does not need the Eurogroup’s permission to intervene. But Eurosystem officials are also aware that it would make little sense to intervene against the express wishes of a significant number of finance ministers, because their public comments could undercut the effectiveness of the intervention. Central bank officials are also mindful that finance ministries generally have less tolerance for extreme currency fluctuations. Agreeing to intervene within informal understandings with the Eurogroup as a matter of practice is not an exacting

¹¹ Not-for-attribution interviews with European officials, Brussels, October 2003; Geneva and Paris, May 2004; Washington, Frankfurt and Brussels, May 2005. The following paragraphs also draw from these sources.

concession on the part of the Eurosystem.¹² Finance ministry officials, for their part, appear to have accepted the 'sole competence' of the Eurosystem in matters of intervention as a practical necessity (*de facto*) rather than as a legal right enshrined in the Maastricht treaty (*de jure*).

European officials also make a distinction between 'strategic' interventions, whose objective is a significant change in the exchange rate and 'technical' interventions, aimed at more modest objectives. The three-point agreement describes arrangements for strategic operations, those that involve other G-7 central banks and co-ordination with their finance ministries. Bargaining with the US Treasury, for example, requires the involvement of Eurogroup officials, principally the EFC chairman and the Eurogroup chairman. Technical interventions, by contrast, could be smaller and more frequent and can be decided entirely by the ECB.

External Contacts

Finance ministers of the G-7 partners, as elected officials or as appointees of elected officials who are in turn confirmed by national legislatures, prefer to deal with political officials within the euro area. In the absence of a direct counterpart to the US Treasury Secretary, the Eurogroup chairman attends the G-7 meetings at which exchange market conditions and intervention contingencies are discussed with the ECB President. But the Treasury was reluctant to rely exclusively on communication through a chairman who revolved frequently among non-G-7 euro area ministers and had little or no mandate from fellow ministers to negotiate accords.

A complex formula for US-euro area contacts was therefore necessary with respect to intervention. When agreeing to operations in principle, the US Treasury would communicate with the Eurogroup through the EFC chairman, who usually holds the position of a deputy secretary or undersecretary in a national finance ministry. When arranging the specific details for such operations, Treasury officials would relate directly to officials in the ECB, the president of which is specifically entrusted with external contacts according to the understanding reached at Turku. When agreeing on the press statement to be issued with operations and after the Treasury and ECB were near agreement, the EFC chairman would be brought back into the transatlantic conversation.

¹² The German Bundesbank, however, stresses the limits to the *de jure* role of the Eurogroup (Deutsche Bundesbank, 2001, pp. 30–31).

Communications

Because finance ministers will be asked about market operations and their comments will affect exchange markets, a coherent, co-ordinated message was recognized to be a necessary ingredient for success. The understanding reached at Turku specified the President of the ECB as responsible within the Eurosystem for communicating with the markets and that the members of the Eurogroup would use commonly agreed language on exchange rates and operations. Although the ECB might decide many of the essential details of operations, the press statement would be agreed between the central bank and the EFC chairman and the Eurogroup chairman as representatives of finance ministry officials – roles that were affirmed in the clarification of the Turku agreement.

Operations

The mechanics of foreign exchange trading was a matter addressed entirely within the Eurosystem. The main question was whether the foreign exchange trading desks of the national central banks would be maintained or dismantled in favour of creating a single trading desk at the ECB in Frankfurt. To the dismay of many, the Eurosystem decided to maintain both the existing desks and establish a new one, for a total of 12 at that time. Although a subset of national central banks might be selected to conduct operations, all 12 could in principle participate.¹³ Aside from the inefficiency of this arrangement, the risk of leaks increases with the number of people with advanced notice of interventions. The resistance to consolidating trading desks is symptomatic of the broader unwillingness to centralize the Eurosystem (Padoa-Schioppa, 2004).

IV. Forging Coherence: Winter and Spring 2000

As the euro continued to depreciate over the first half of 2000, it became increasingly evident that the currency was, in the understated language of the International Monetary Fund, ‘below the level that could be justified by medium-term fundamentals’ (*World Economic Outlook*, 2000, p. 13). The euro area’s difficulty in forming a coherent exchange rate policy and its failure to demonstrate a capacity to intervene in the currency markets weighed on the value of the currency. The most reticent members of the Eurogroup and the Eurosystem thus gradually became more activist.

¹³ Not-for-attribution interviews, Frankfurt, February 1999 and May 2005.

Consensus Formation in Eurogroup

After the euro dropped below parity to \$0.98, at the end of January 2000, the Eurogroup issued its first substantial joint statement on exchange rates in the form of a 'common understanding':

The Euro-11 Ministers and the ECB share the view that growth is now very robust in the Euro area and is increasingly rooted in domestic demand. As a consequence, *the Euro has potential for appreciation*, firmly based on growth and internal price stability. A strong economy goes along with a strong currency. (italics added)

The statement was the beginning of a series of increasingly strong warnings to the markets about the weakness of the euro (Council of the European Union, 2000a). But Italy's Treasury Minister, Giuliano Amato, denied that anyone in the meeting advocated intervention (Castle and Thornton, 2000).

A few days after the euro breached the \$0.90 level on 3 May 2000, the Eurogroup met and issued stronger language, following up on a supportive statement from the ECB. The finance ministers said that they, with the European Commissioner and the ECB President, shared the view that 'growth is very robust in the euro area' and reaffirmed their commitment to fiscal consolidation and structural reform as laid out at the recent meeting of the European Council in Lisbon (the 'Lisbon Agenda'). The operative sentence read: 'In this context, we share a common concern about *the present level of the euro which does not reflect the strong economic fundamentals* of the euro area' (Council of the European Union, 2000b; italics added).

The statement, unanimously supported, did not threaten foreign exchange intervention, although the finance ministers had discussed market operations on this occasion. But when he presented the communiqué to the press as Eurogroup chairman, the Portuguese finance minister, Joaquim Pina Moura, said, 'the instrument exists and is available', a formula that was echoed by other ministers in background press briefings (Norman and Swann, 2000b).

Consensus Formation in the Eurosystem

The central bankers were conscious, most of all, of their quasi-constitutional mandate to maintain price stability within the euro zone. Prior to the creation of the euro, the Eurosystem had affirmed its commitment to the flexible exchange rate regime, in keeping with the decision of the Eurogroup, disavowed any exchange rate target or target ranges and indicated that intervention would be exceptional (e.g. Munchau *et al.*, 1998a and 1998b; European Union in the US Delegation, 1999, p. 3). Accordingly, ECB President

Duisenberg was profoundly sceptical of the value and effectiveness of foreign exchange intervention (e.g. European Parliament, 1999, pp. 18–22; Duisenberg, 1999). Duisenberg's position on the matter accounted substantially, though by no means exclusively, for the ECB's reluctance to intervene.

In its economic analysis, the Eurosystem thus filtered the depreciation of the euro largely through the lens of its impact on domestic prices. Within its Monetary Policy Framework, which it uses to set domestic monetary policy, the Eurosystem placed exchange rate factors in the 'second pillar' of broader economic considerations, the 'first pillar' being the growth of monetary aggregates.¹⁴ By raising the price of traded goods, euro depreciation contributed to inflation, which might be acceptable when inflation was below the Eurosystem's target of 'below two per cent', as it was during 1999 (1.5 per cent). During early 2000, though, the harmonized index of consumer prices, the ECB's standard measure of the euro area price level, was accelerating, making the increment to inflation from further depreciation decidedly unwelcome. (The inflation rate would in fact reach 2.8 per cent for the year as a whole and rise to 3.0 per cent for 2001.)

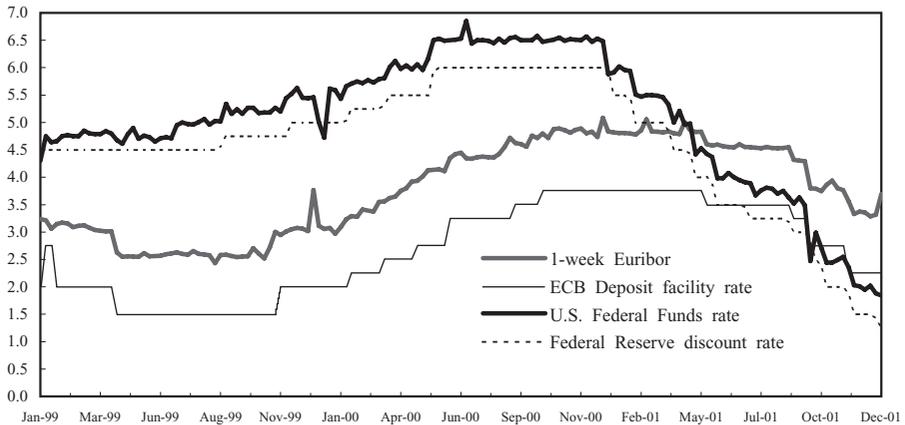
Several additional considerations reinforced the Eurosystem's concerns about depreciation stemming from the impact on price stability. Many citizens in the euro area had been promised a European currency that was 'at least as strong as the D-mark'. The large depreciation of the euro was interpreted by many as inconsistent with that guarantee. The external value of the currency affected political attitudes towards the monetary union in member countries and Denmark was scheduled to hold its referendum on joining the euro area in late September 2000. Moreover, the monetary union had yet to issue euro notes and coins, scheduled for 2002, a process that the Eurosystem did not want to be complicated by external volatility. These considerations became all the more compelling as the euro fell, forcing a reconsideration of the *laissez-faire* stance.¹⁵

As a new central bank, however, the Eurosystem was concerned to build a reputation for effectiveness. To ensure that their first intervention in the foreign exchange market was successful, Eurosystem officials wanted any such effort to be consistent with domestic monetary policy. After having eased monetary policy at the advent of the euro, the ECB had begun tightening in November 1999 in response to the prospect of rising inflation, as Figure 3 shows. As the euro continued to weaken and inflation forecasts were increased, the ECB continued to increase rates in quarter-point increments in early February, mid-March, late April and by a half-point in early June.

¹⁴ A 2003 review reversed the designation of the two pillars. See European Central Bank (2003).

¹⁵ Not-for-attribution interviews with ECB officials, Frankfurt, May 2005.

Figure 3: US and Euro Area Interest Rates, 1999–2001 (in %, Weekly Data)



Sources: European Central Bank, Euribor website <<http://www.euribor.org/html/content/faq.html>>, and the Federal Reserve Board.

Because the Federal Reserve also raised rates, these increases by the ECB did not close the US-euro area interest-rate differential.

The finance G-7 met in Washington on 16 April with the exchange rate in the range of \$0.95–0.96. Owing to differences over how to characterize the misalignment, however, the finance ministers and central bank governors were unable to reach agreement on strong language and the communiqué simply repeated the standard, noncommittal wording of previous statements (Statement of G-7 Finance Ministers and Central Bank Governors, 2000). The softness of this language, following a 20 per cent depreciation of the euro in 16 months, reinforced the impression in the markets of an absence of official consensus on substance, statements and action. As the euro approached and breached the \$0.90 level, the Eurosystem issued two statements intended to support the currency (European Central Bank, 2000a). But Duisenberg again would only commit to monitoring the exchange rate ‘very closely’, not to intervening (European Central Bank, 2000b).

V. Concerted Intervention: September 2000

By the beginning of September 2000, several factors caused European officials to favour intervention more strongly. Oil prices were increasing substantially and, with them, inflation forecasts as well. Euro area growth was expected to register 3.5 per cent for the year, up from 2.4 per cent in 1999. The Eurosystem raised interest rates by one-quarter point at the end of August, a

move that was *not* matched by the Federal Reserve, with no apparent effect on the trend for the euro, which stood at \$0.89. Finally, the chairmanship of the Eurogroup rotated from Portugal to France, whose government and finance ministry had consistently been the most supportive of intervention (Graham *et al.*, 2000; Norman and Swann, 2000a; Milner and Osborn, 2000).

The Eurogroup met at Versailles under the chairmanship of French Finance Minister Laurent Fabius on the evening of 8 September. The Vice President of the ECB, Christian Noyer and the European Commissioner for Economic and Financial Affairs, Pedro Solbes, were also present. The exchange rate and the merits of intervention were discussed at length (Eurogroup communiqué, 8 September 2000). A consensus thereby emerged between the Europeans in favour of action in the markets jointly with the United States and the rest of the G-7 (Beattie and Fidler, 2000). No formal decision was taken or 'general orientations' issued, but the consensus provided an informal 'green light' for the ECB, which was moving towards intervention as well.

The Eurogroup consensus thus set in motion the specific negotiations with the United States that led to the intervention agreement. As chairman of the Economic and Financial Committee, Mario Draghi served as the principal liaison between the European finance ministries and the US Treasury during follow up. The specific details of the intervention agreement – amounts, rates, timing and press statement, among others – were hammered out directly between the US Treasury and the ECB.¹⁶

The US Treasury was sympathetic to the view that the euro's value did not reflect the economic fundamentals and was thus open to conducting joint operations. Treasury officials nonetheless told European partners that they were not willing to abandon the 'strong dollar' language that they had been using for several years to describe the department's stance on exchange rates and that they would reiterate this language when (inevitably) asked by members of the press about the intervention.¹⁷

The Governing Council, which has the authority to decide on intervention for the Eurosystem, convened by telephone and approved the market operations on Thursday 21 September (Beattie and Fidler, 2000). ECB officials communicated the Governing Council decision to EFC chairman Draghi, who in turn notified Laurent Fabius. US and European officials also invited their Japanese, British and Canadian counterparts to join in the intervention, whose agreement brought in all of the members of the finance G-7.

¹⁶ Not-for-attribution interviews with European officials, Brussels, October 2003 and Frankfurt, May 2005 and former US officials, Washington, June and July 2005.

¹⁷ Not-for-attribution interviews with former US officials, Washington, June and July 2005.

Table 1: Foreign Exchange Intervention to Support the Euro, September and November 2000

<i>Date</i>	<i>Institution</i>	<i>Amount bought</i>	<i>Amount sold</i>
September 22	Bank of Japan	1.5 billion euro	143.5 billion yen
	Federal Reserve	1.5 billion euros	1.34 billion dollars
	Bank of England	85 million euros	51 million pounds
	ECB	2.5 billion euros ^a	not specified
	Bank of Canada	110 million euros	97 million dollars
November 3	ECB	1 billion euros ^a	not specified
November 6	ECB	1 billion euros ^a	not specified
November 9	ECB	2.5 billion euros ^a	not specified

Sources: Ministry of Finance of Japan, Foreign Exchange Intervention Operations Statistics, available at: «<http://www.mof.go.jp/english/e1c021.htm>»; Treasury and Federal Reserve Foreign Exchange Operations Report, *Federal Reserve Bulletin* (December 2000); UK Treasury, *Exchange Equalization Account: Report and Accounts 2000–01*, available at «<http://www.hm-treasury.gov.uk/media/725/63/hc522.PDF>»; Canada's Department of Finance, *Exchange Fund Account Annual Report 2000*, available at: «http://www.fin.gc.ca/efa/efa2000_1e.html#1.%20Foreign.»

Note: ^a Observers' estimates appearing in newspaper accounts, including *Financial Times*, *Daily Telegraph*, *The Guardian* and *The Independent*.

The G-7 entered the currency markets jointly on the afternoon (Frankfurt time) of Friday 22 September, buying about €4.6 billion before the end of the trading day (see Table 1; the size of the ECB's purchases are estimated, not confirmed). Currency traders, whose attention had been focused on the G-7 meeting to be held the following day, were largely caught by surprise. The immediate effect on the exchange rate was dramatic, with the euro jumping from 85.3 US cents at the close of markets on Thursday to over 90 cents after the intervention, falling to 88.2 cents at the Friday close (Turner, 2000; Fisher and Faulkner, 2000).

The common front of the G-7 began to unravel almost immediately, however. During a press conference on the day of the intervention, Secretary Summers repeated the statement issued earlier by the ECB (European Central Bank, 2000c). He then added, among other things, that the strong dollar policy remained intact: 'Our policy on the dollar is unchanged. As I have said many times, a strong dollar is in the national interest of the United States' (US Treasury Department, 2000).

Duisenberg asserted openly that Secretary Summers could have denied that US exchange rate policy had changed without showing so much attachment to the 'strong dollar' language (Paterson and Kaletsky, 2000). Other European officials, such as President of the Bundesbank, Ernst Welteke and the State Secretary in the German Finance Ministry, Caio Koch-Weser, voiced

unhappiness privately; but these comments also made their way into the press (AFX News, 2000). Open transatlantic recrimination raised serious questions, if not outright confusion, in the minds of market participants about the basic objectives of the intervention and depth of commitment of the G-7 authorities (e.g. Swann, 2000).

Europeans also displayed internal differences with respect to institutional prerogatives on exchange rate policy. Aware that this episode was establishing an important precedent, the spokesmen for the political and central banking communities took pains to 'spin' the institutional understanding of euro area in their favour. French Finance Minister Fabius asserted the Eurogroup's role in organizing the operations. His statement stressed the Versailles consensus as the context for the operation and added, 'I fully approve' the intervention (Ministry of Finance, France, 2000a).

ECB President Duisenberg was equally anxious to disabuse the public of any notion that the Eurogroup could dictate or block intervention. He stressed that the decision had been taken instead by the Governing Council:

We didn't ask for [finance ministers'] permission because we don't need permission. While ministers had a role in the overall orientation of exchange rate policy, the management of the foreign exchange markets was a matter for the ECB. (Beattie and Fidler, 2000)

The argument was played out in more confidential settings at a Eurogroup meeting on 29 September and in a subsequent exchange of letters between Duisenberg and Fabius. The exchange of letters produced no further change to the institutional agreement, however, and essentially affirmed the Turku understanding as it had been clarified in June at Luxembourg.¹⁸

In the face of transatlantic and intra-European arguments, Duisenberg's suggestion that follow-up intervention was unlikely (Andrews, 2004; Paterson and Kaletsky, 2000) and Denmark's rejection of the euro by referendum in late September, the euro slid downward reaching an all-time low of \$0.827 on 25 October. Eurosystem officials had raised interest rates by a quarter point in the meantime, again unmatched by the Federal Reserve and continued to believe that the trends in monetary policy were consistent with intervention to support the euro (Figure 3).

VI. Unilateral Intervention: November 2000

The Eurosystem intervened accordingly on Friday 3 November, Monday 6 November and Thursday 9 November (ECB, 2000d). Close observers

¹⁸ Not-for-attribution interviews with European officials, October 2005 and January 2006.

estimate the amounts purchased to have been around €1 billion, €1 billion and €2.5 billion on these days, respectively and thus roughly comparable to the scale of ECB operations on 22 September (Table 1). These operations appear to have occurred mostly at rates around \$0.86. Although the rate dipped below \$0.85 on a few trading days two weeks later, these operations broadly coincided with the low point for the currency.¹⁹

The November interventions contrasted with the 22 September operation in two respects. First, the November interventions were unilateral. The ECB did not ask, at least formally, the US Treasury or any of its other G-7 partners to intervene. Second, the ECB and its national central banks acted without prior consultation with finance ministers and their officials. Finance ministry officials were informed by their national central bank counterparts on the day of the operations. Fabius, still chairman of the Eurogroup, was informed of the intervention only about ten minutes beforehand and objected that this notice was not sufficient.²⁰ Duisenberg briefed finance ministers only on the evening of Monday 6 November, after the second day of unilateral operations (Paterson, 2000a, 2000b).

The absence of substantial consultation prior to the November interventions generated significant resentment on the part of finance ministers. While they acknowledged that the Versailles Eurogroup meeting had given an informal 'green light' to ECB action, they argued that the duration of that approval did not extend indefinitely and that the ECB should have renewed its understanding with the Eurogroup before entering the market in November. Thus, although Fabius publicly supported the intervention on 3 November, placing it in the context of the G-7 statement at Prague, he and other ministers worked to change procedures for prior consultation (Ministry of Finance, 2000b). ECB officials argued that these were technical interventions in pursuit of the understanding with the Eurogroup of September and under the umbrella of the September G-7 agreement and joint operations (Elliott and Milner, 2000; Crooks, 2000).

This controversy was eventually resolved by a further refinement of procedures agreed between ECB officials and the chairmen of the Eurogroup and EFC. While reaffirming that the ECB retains the institutional prerogative to decide on intervention, even when it acts within a broad understanding with the Eurogroup, the ECB agreed to inform the president of the Eurogroup and the chairman of the EFC sufficiently well in advance to prepare a short statement to the press. The ECB also agreed that the national central bank

¹⁹ Subsequent exchange rate movements are thus consistent with the claim that operations broke the market trend in this case. Dominguez (2003) and Truman (2003) discuss the effectiveness of these interventions.

²⁰ Not-for-attribution interviews with European officials, May 2004.

governors would inform their respective finance ministers at the time of the intervention.²¹

Conclusion

The organization of the euro area for foreign exchange intervention and the case of the autumn 2000 operations yield several conclusions with respect to the (1) balance of influence among the institutions of the monetary union, (2) malleability of the institutional understanding and (3) ability of the euro authorities to act coherently in the future.

First, it is clear that the 'German model' has won the contest over the organization of foreign exchange intervention under flexible rates – at least for the time being. The Eurosystem decides the timing and amount of intervention as well as the rate at which foreign exchange is bought and sold. While the Eurosystem chose to operate under a political understanding with the Eurogroup in this case, ECB officials maintain the right to intervene without 'permission' if need be. Virtually all responsible officials within the euro area accept that these are prerogatives of the ECB alone.

At the same time, the Eurosystem does not hold complete discretion over intervention as a practical matter, even under a flexible exchange-rate regime. Market operations would probably not be successful in the face of dissent between finance ministers. Central bankers wisely want some degree of consensus between political officials, therefore, and concede the need to act within a supportive political context, preferably a green light from the Eurogroup. Eurosystem officials also recognize the need to consult with finance ministers and draft press statements jointly through the chairmen of the Eurogroup and EFC. These understandings are embodied in the Turku agreement and its subsequent clarifications, which remain in effect until revised or replaced.

Second, while the formal treaties set some parameters, the euro area authorities arrived at these arrangements largely as a practical *modus vivendi* and not a 'final status' settlement of institutional prerogatives as a matter of legal principle. Finance ministers' appear to accept the 'sole competence' of the Eurosystem, in particular, as a practical matter rather than as a legal right. The difference is important for the evolution of the institutional division of labour: if finance ministers had accepted the dominant role of the ECB *de jure*, the Eurogroup would have limited scope for reclaiming authority in the future. By accepting the dominant role of the ECB *de facto*, finance ministers retain

²¹ Not-for-attribution interviews with European officials, Brussels, October 2003, Geneva, May 2004 and Washington, September 2005.

greater scope to reclaim some of this authority at some point when they might be collectively capable of exercising it. Were there to be a convergence of preferences, a shift towards majority decision-making and/or a strengthening of the role of the Eurogroup chairman under the two-year term, for example, officials on the political side might wish to assert themselves more strongly.

To some extent, this potential 'permanent renegotiation' of institutional arrangements is characteristic of the euro area's international partners as well. However, the euro area faces greater risks from institutional conflict and uncertainty than do the United States, Japan and United Kingdom. These countries have broader political systems that can effectively adjudicate conflicts between their finance ministries and central banks, a role played by the US Congress, for example, on a couple of important occasions. The European Union might well be unable to adjudicate such inter-institutional conflicts effectively.²²

Finally, global current account imbalances highlight the importance of the euro area's ability to act coherently on exchange rate policy. For the United States, these imbalances are unprecedented in absolute size (running at a rate of \$860 billion per year during the first half of 2006) and relative to GDP (6.6 per cent). Deficits of this magnitude are not likely to be sustained for long and large changes in exchange rates between major currencies will have to be part of the adjustment process. The euro area will not escape this adjustment process simply because its own current account is close to balance. Substantial management of the exchange rate, similar to that during the Plaza-Louvre period, could prove to be necessary to ensure that adjustment is smooth and consistent with growth rather than precipitous and accompanied by a recession. The euro area could well be called upon to pursue a more active exchange rate policy as part of G-7 and/or IMF co-operation, therefore, and the ECB and Eurogroup could be called upon to co-operate with one another accordingly.

However, although the autumn 2000 episode demonstrated that the euro area could intervene in the foreign exchange market, the prior year demonstrated the difficulty of achieving a consensus for action both among Member States and between their finance ministers and the Eurosystem. Any effort to build a new consensus for exchange rate activism could face similar difficulties, despite the inter-institutional understanding on intervention. Should divergence of economic performance among Member States in the euro area increase, for example, governments could well have greater difficulty achieving consensus within the Eurogroup on desirable limits to exchange rate fluctuation. To the extent that the ECB operates within a political

²² The absence of a strong political union as a context for the monetary union has been emphasized in Verdun (1998), Berman and McNamara (1999), Caporaso (2000) and Jones (2002), among others.

understanding with the Eurogroup, even if only as a practical matter to maximize operational success, such barriers to consensus could hinder the euro area's ability to act externally.

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References

- AFX News (2000) 'Welteke Feels Summers' Comments on Euro/Dollar Unhelpful – Breuer'. 25 September.
- Alogoskoufis, G. and Portes, R. (1997) 'The Euro, the Dollar and the International Monetary System'. In Masson, P.R., Krueger, T.H. and Turtelboom, B.G. (eds) *EMU and the International Monetary System* (Washington, DC: International Monetary Fund).
- Andrews, E.L. (2004) 'Rescue Attempt for the Euro Falls Short of Bankers' Hopes'. *The New York Times*, 24 September.
- Artus, P. (2000) 'Should the ECB Follow the Federal Reserve?' *EMU Monitor*, Paris, 27–28 June.
- Atkins, R. (1998) 'Schröder Backs Plans for Currency Target Zones'. *Financial Times*, 29 September.
- Beattie, A. and Fidler, S. (2000) 'Careful Planning Behind Banks' Euro Surprise'. *Financial Times*, 25 September.
- Beattie, A. and Swann, C. (1999) 'Bundesbank Tries to Talk up Sinking Euro'. *Financial Times*, 29 May.
- Bénassy-Quéré, A., Mojon, B. and Pisani-Ferry, J. (1997) 'The Euro and Exchange Rate Stability'. Centre d'Etudes Prospective et d'Information Internationales (CEPII), Working Paper No. 97/12.
- Bénassy-Quéré, A., Mojon, B. and Schor, A.D. (1998) 'The International Role of the Euro'. CEPII Research Centre, Working Paper No. 1998/03.
- Bergsten, C.F. (1997a) 'The Dollar and the Euro'. *Foreign Affairs*, Vol. 76, pp. 83–95.
- Bergsten, C.F. (1997b) 'The Impact of the Euro on Exchange Rates and International Policy Co-operation'. In Masson, P.R., Krueger, T.H. and Turtelboom, B.G. (eds) *EMU and the International Monetary System* (Washington, DC: International Monetary Fund).
- Bergsten, C.F. and Williamson, J. (eds) (2004) *Dollar Adjustment: How Far? Against What? Special Report 17* (Washington, DC: Institute for International Economics).

- Berman, S. and McNamara, K.R. (1999) 'Bank on Democracy'. *Foreign Affairs*, Vol. 78, No. 2, pp. 2–8.
- Bismut, C. and Jacquet, P. (1999) 'The Euro and the Dollar: An Agnostic View'. *Tokyo Club Papers 1999*, Vol. 12, pp. 75–97.
- Brogan, B. (1999) 'Bid to Support the Ailing Euro'. *The Herald*, 3 June.
- Caporaso, J.A. (2000) *The European Union: Dilemmas of Regional Integration* (Boulder, CO: Westview Press).
- Castle, S. and Thornton, P. (2000) 'Fear of Higher US Interest Rates Prompts Record Fall in Euro'. *The Independent*, 29 February.
- Chinn, M. (2000) 'The Empirical Determinants of the Euro: Short and Long Run Perspectives'. Paper presented at the Deutsche Bundesbank conference on the Equilibrium Exchange Rates of the Euro, 27–28 March.
- Cœuré, B. and Pisani-Ferry, J. (1999) 'The Case against Benign Neglect of Exchange Rate Stability'. *Finance & Development*, September, pp. 5–8.
- Cœuré, B. and Pisani-Ferry, J. (2003) 'One Market, One Voice? European Arrangements in International Economic Relations'. Paper prepared for the conference on New Institutions for a New Europe, Vienna, 10–11 October.
- Cohen, B.J. (2003) 'Global Currency Rivalry: Can the Euro Ever Challenge the Dollar?' *Journal of Common Market Studies*, Vol. 41, No. 4, pp. 589–91.
- Cooper, R.N. (2000) 'Key Currencies after the Euro'. In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer).
- Council of the European Union (2000a) Press Release: 2241st Council meeting – ECOFIN, 31 January (Brussels: Council of the European Union). Available at: [«http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/05565.EN0.html»](http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/05565.EN0.html).
- Council of the European Union (2000b) Press Release: 2258th Council meeting – ECOFIN, 8 May (Brussels: Council of the European Union). Available at: [«http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/08204.EN0.rtf.html»](http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/08204.EN0.rtf.html).
- Crooks, E. (2000) 'Bank Chief Says Investors Will Force Euro Recovery'. *Financial Times*, 3 November.
- Destler, I.M. and Henning, C.R. (1989) *Dollar Politics: Exchange Rate Policy-Making in the United States* (Washington, DC: Institute for International Economics).
- Deutsch, K.G. (2000) 'Exchange Rate Policy-Making in the Euro Area: Lessons from Trade?' In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer), pp. 111–34.
- Deutsche Bundesbank (2001) 'Recent Institutional Developments in Economic and Monetary Co-operation'. *Monthly Report*, January, pp. 15–33.
- Dominguez, K.M. (2003) 'Foreign Exchange Intervention: Did it Work in the 1990s?' In Bergsten, C.F. and Williamson, J. (eds) *Dollar Overvaluation and the World Economy, Special Report 16* (Washington, DC: Institute for International Economics).
- Dominguez, K.M. and Frankel, J.A. (1993) *Does Foreign Exchange Intervention Work?* (Washington, DC: Institute for International Economics).

- Driver, R. and Wren-Lewis, S. (eds) (1998) *Real Exchange Rates for the Year 2000, Policy Analyses in International Economics 54* (Washington, DC: Institute for International Economics).
- Duisenberg, W.F. (1999) Speech to the Edmond Israel Foundation, Luxembourg, 11 November. Reprinted in *BIS Review* 125/1999.
- Duncan, D. (1999) 'Euro Ministers Seek to End Currency Confusion'. *The Scotsman*, 4 June.
- Eichengreen, B. and Ghironi, F. (1998) 'European Unification and International Monetary Co-operation'. In Eichengreen, B. (ed.) *Transatlantic Economic Relations in the Post-Cold War Era* (New York: Council on Foreign Relations).
- Elliott, L. and Milner, M. (2000) 'Forex Markets Scorn ECB Foray'. *The Guardian*, 4 November.
- Eurogroup (2000) Meeting communiqué, Versailles, 8 September (http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ecofin/Eurogroup.en.htm).
- European Central Bank (2000a) Press Release: 27 April 2000 – Monetary Policy Decisions (Frankfurt: European Central Bank). Available at: <http://www.ecb.int/press/pr/date/2000/html/pr000427.en.html>.
- European Central Bank (2000b) Press Release: 5 May 2000 – Statement on the Euro by Dr. Willem F. Duisenberg (Frankfurt: European Central Bank). Available at: <http://www.ecb.int/press/pr/date/2000/html/pr000505.en.html>.
- European Central Bank (2000c) Press Release: 22 September, 2000 – The ECB Announces Joint Intervention in the Exchange Markets (Frankfurt: European Central Bank). Available at: <http://www.ecb.int/press/pr/date/2000/html/pr000922.en.html>.
- European Central Bank (2000d) Press Release: 3 November 2000 – The ECB confirms Intervention in the Exchange Markets (Frankfurt: European Central Bank) (<http://www.ecb.int/press/pr/date/2000/html/pr001103.en.html>).
- European Central Bank (2003) 'The outcome of the ECB's Evaluation of its Monetary Policy Strategy'. *Monthly Bulletin* (January), pp. 79–92.
- European Commission (1997) 'External Aspects of Economic and Monetary Union'. European Commission, Brussels, Staff Working Document.
- European Council (1997) 'Presidency Conclusions'. Meeting communiqué, Luxembourg, 12 and 13 December. (http://www.europarl.europa.eu/enlargement/ec/lux_en.htm).
- European Parliament (1999) 'Hearing with Dr. Willem F. Duisenberg'. Committee on Economic and Monetary Affairs and Industrial Policy, Brussels, 18 January.
- European Union in the US Delegation (1999) *Eurecom Newsletter*, February 1999, p. 3.
- Extel Examiner* (1998) 'EU Summit: Leaders Say Conditions Right for Low Rates But No Pressure on ECB'. 25 October.
- Financial Times* (1999) 'Mr. Euro-zone'. 12 February.
- Fisher, Peter R. and Faulkner, R. (2000) 'Treasury and Federal Reserve Foreign Exchange Operations'. *Federal Reserve Bulletin* (December) pp. 81–87.

- Fratzcher, M. (2004) 'Communication and Exchange Rate Policy'. ECB Working Paper Series No. 363 (Frankfurt: European Central Bank).
- Frieden, J.A. (2000) 'The Political Economy of the Euro as an International Currency'. In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer).
- Graham, R., Norman, P. and Swann, C. (2000) 'Euro Hit by Biggest Fall Since its Launch'. *Financial Times*, 29 February.
- Hahn, H. (2000) 'European Union Exchange Rate Policy?' In Giovanoli, M. (ed.) *International Monetary Law: Issues for the New Millennium* (London: Oxford University Press).
- Hamilton, D. (1999) 'Euro Close to Dollar Parity'. *The Herald*, 13 July.
- Heisenberg, Dorothee (1999) *The Mark of the Bundesbank: Germany's Role in European Monetary Co-operation* (Boulder, CO: Lynne Rienner).
- Henning, C.R. (1994) *Currencies and Politics in the United States, Germany and Japan* (Washington, DC: Institute for International Economics).
- Henning, C.R. (1997) 'Co-operating with Europe's Monetary Union'. *Policy Analysis in International Economics*, Vol. 49.
- Henning, C.R. (2000) 'External Relations of the Euro Area'. In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer).
- Henning, C.R. and Padoan, P.C. (2000) *Transatlantic Perspectives on the Euro*. (Washington, DC: The Brookings Institution).
- Jones, E. (2002) *The Politics of Economic and Monetary Union: Integration and Idiosyncrasy* (Lanham, MA: Rowman & Littlefield).
- The Independent* (1999) 'Split Emerges over Euro Intervention'. 1 June.
- The Irish Times* (1999) 'Men of Few Words on the Euro'. 5 June.
- Kaltenthaler, K. (1998) *Germany and the Politics of Europe's Money* (Durham, NC: Duke University Press).
- Kaltenthaler, K. (2006) *Policy-Making in the European Central Bank: The Masters of Europe's Money* (New York: Roman & Littlefield).
- Kenen, P.B. (1995) *Economic and Monetary Union: Moving Beyond Maastricht* (Cambridge: Cambridge University Press).
- Kubelec, C. (2004) 'Intervention When Misalignments Are Large'. In Bergsten, C.F. and Williamson, J. (eds) (Washington: Institute for International Economics), pp. 241–58.
- Kutos, P. (2001) 'Euro Exchange Rate Policy: Institutions and Procedures'. Austrian Ministry of Finance, Vienna, Working Paper 8/2001.
- Loedel, P.H. (1999) *Deutsche Mark Politics: Germany in the European Monetary System* (Boulder, CO: Lynne Rienner).
- Lorenzen, H.P. and Thygesen, N. (2000) 'The Relation Between the Euro and the Dollar'. Paper for the EPRU Conference on the Perspectives on Danish and European Economic Policy.
- Masson, P.R., Krueger, T.H. and Turtelboom, B.G. (eds) (1997) *EMU and the International Monetary System* (Washington: International Monetary Fund).

- McNamara, K.R. and Meunier, S. (2002) 'Between National Sovereignty and International Power: The External Voice of the Euro'. *International Affairs*, Vol. 78, pp. 849–68.
- Milner, M. and Osborn, A. (2000) 'Brown Talks Up Single Currency: Finance Ministers Stop Short of Intervention on Foreign Exchanges'. *The Guardian*, 9 May.
- Ministry of Finance, France (2000a) Press release, Paris, 22 September.
- Ministry of Finance, France (2000b) Press release, Paris, 3 November.
- Munchau, W. (1998a) 'Issing Rejects Euro Target Zones'. *Financial Times*, 30 December.
- Munchau, W. (1998b) 'Power Struggles over the Euro'. *Financial Times*, 6 November.
- Munchau, W. *et al.* (1998a) 'Duisenberg Says ECB Would Not Welcome Overvalued Euro'. *Financial Times*, 7 December.
- Munchau, W. *et al.* (1998b) 'Builder of the Euro Team Spirit'. *Financial Times*, 7 December.
- Mundell, R. (2000) 'The Euro and the Stability of the International Monetary System'. In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer).
- Norman, P. and Barber, T. (1998) 'ECB, Bonn in Clash on Euro'. *Financial Times*, 23 October.
- Norman, P. and Swann, C. (2000a) 'Jospin Urges Action to Prop up the Euro'. *Financial Times*, 5 May.
- Norman, P. and Swann, C. (2000b) 'Franco-German Differences Mar Euro Unity meeting'. *Financial Times*, 9 May.
- Office of Official Publications of the European Communities (2002) 'European Union: Consolidated Versions of the Treaty on European Union and of the Treaty Establishing the European Community' (2002/C 325/01), *Official Journal of the European Communities*, 24.12.2002.
- Padoa-Schioppa, T. (1999) 'The External Representation of the Euro Area'. Introductory Statement at the Sub-Committee on Monetary Affairs, European Parliament, Brussels, 17 March.
- Padoa-Schioppa, T. (2004) *The Euro and its Central Bank: Getting United After the Union* (Cambridge, MA: MIT Press).
- Paterson, L. (2000a) 'ECB's Third Try Fails to Lift the Euro'. *The Times*, 7 November.
- Paterson, L. (2000b) 'ECB's Top Adviser Resigns'. *The Times*, 8 November.
- Paterson, L. and Kaletsky, A. (2000) 'Duisenberg and the Quest for Stability'. *The Times* (London), 16 October.
- Posen, A.S. (ed.) (2005) *The Euro at Five: Ready for a Global Role?* (Washington DC: Institute for International Economics).
- Rosecrance, R. (2000) 'The International Political Implications of the Euro'. In Mundell, R. and Clesse, A. (eds) *The Euro as a Stabilizer in the International Economic System* (Amsterdam: Kluwer).

- Sarno, L. and Taylor, M.P. (2001) 'Official Intervention in the Foreign Exchange Market: Is it Effective and, if So, How Does it Work?' *Journal of Economic Literature*, Vol. 39, pp. 839–68.
- Smits, R. (1997) *The European Central Bank: Institutional Aspects* (Hague: Kluwer Law International).
- Statement of G-7 Finance Ministers and Central Bank Governors (2000). Available at: <http://www.g8.utoronto.ca/finance/fm001604.htm>.
- Swann, C. (2000) 'Euro Paralysed by Intervention Fears'. *Financial Times*, 26 September.
- Taylor, Mark (2003) 'Is Official Exchange Rate Intervention Effective?' CEPR Discussion Papers 3758 (London: Centre for Economic Policy Research).
- Traynor, I. (1999) 'Euro Summit Ends in Chaos'. *The Guardian*, 5 June.
- Truman, E.M. (2003) 'The Limits of Exchange Market Intervention'. In Bergsten, C.F. and Williamson, J. (eds) *Dollar Overvaluation and the World Economy, Special Report 16* (Washington, DC: Institute for International Economics).
- Truman, E.M. (2005) The Euro and Prospects for Policy Co-ordination. In Posen A. (ed.) *The Euro at Five: Ready for a Global Role?* (Washington, DC: Institute for International Economics).
- Turner, D. (2000) 'Euro Soars'. *Financial Times*, 23 September.
- US Treasury Department (2000) 'Press Conference with Secretary of the Treasury Larry Summers', 22 September. Available at: <http://www.useu.be/ISSUES/sumunoff0922.html>.
- Verdun, A. (1998) 'The Institutional Design of EMU: A Democratic Deficit?' *Journal of Public Policy*, Vol. 18, No. 2, pp. 107–32.
- Williamson, J. (2000) 'Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option'. *Policy Analyses in International Economics*, No. 60 (Washington, DC: Institute for International Economics).