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ABSTRACT

We analyse the prospects for greater monetary integration in Africa, in the wake of EMU. We argue that the structural characteristics of African economies are quite different to the EMU members but that much can be gained from monetary cooperation, as an external agency of restraint and in promoting stability in the financial sector. EMU has only a marginal impact on the net benefits of monetary cooperation but the euro would be a natural anchor for any African monetary unions. Indeed, the most likely route to new monetary cooperation in Africa is via a common peg to the euro.

I INTRODUCTION

The arrival of EMU has sparked a new wave of interest in cooperative monetary arrangements in Africa. More than a generation after the demise of the east African shilling, there is talk of a new common currency for Kenya, Tanzania and Uganda. And in the CFA zone, widely believed to be on its last legs in 1992-93, the recent trend has been for wider membership (Guinea-Bissau joined in 1997)—now with the peg linked to the euro.

The purpose of this paper is to explore whether the new enthusiasm has a rational basis, and what the policy implications may be. There are three parts. The first part reviews historical aspects of African experience with monetary cooperation, with a special focus on the crisis of the CFA franc zone. At best, the historical record here has been one of mixed success and future monetary cooperation in Africa should build on the lessons provided by the successes and failures of the past.

In the second part, we analyse four major policy dimensions of the currency union debate against an African background. We look at currency unions as an agency of restraint on government, as a means of deepening the financial system, as a means of limiting problems of speculative pressure, and finally at the pattern of international integration, which is at the heart of the traditional optimal currency area literature (though we focus more on this as a basis for selecting an anchor than as a framework for assessing optimality of currency union). In each case we highlight issues that are vitally important in the African context but were less relevant during the EMU debate. We discuss the impact of EMU on the calculus facing African countries in deciding to pursue greater monetary cooperation and marshal the relevant empirical evidence.

The main results of our analysis can be summarised as follows. EMU provides a demonstration effect suggesting to African countries that regional monetary integration need not have post-colonial connotations. But its use as an external agency of restraint remains the strongest attraction of a multi-country currency arrangement. The euro is a more attractive external anchor than any single national European currency, and will become much more so if and when it subsumes sterling. Achievement of economies of scale in the financial sector is an important additional goal, but one which can be furthered by regional cooperation and integration even if there is not a common currency. The advantages of monetary integration for promoting trade and limiting contagion of speculative flows remain more limited in the African context—the latter

not least because African currencies remain 'below the radar screen' for international speculators.

II AFRICAN EXPERIENCE WITH MONETARY COOPERATION

2.1 The chequered history of economic regionalism in Africa

Traceable back at least to the Berlin Conference's 1885 decree that navigation should be free on the Niger and Congo rivers, regional economic cooperation for the facilitation of international trade and payments has long been high on the African policy agenda. There have been noteworthy cooperative initiatives in both public infrastructure, including ports, railways and other forms of transport and logistical infrastructure, all-important for the international access of land-locked countries. But there have been centrifugal forces too, some of them economic, related to the difficulty in sharing the costs and benefits of economic integration. This was the underlying reason for the reluctance of Côte d'Ivoire to see a continued federation of francophone countries in West Africa post independence, and also contributed to the 1977 collapse of the East African Community (Oliver and Atmore 1994; Foroutan 1993; Radelet 1997).

In practice, despite the formation of multiple regional trade arrangements with an overlapping—and variable—membership, regional trade integration in Africa has been remarkably undeveloped. Yeats (1999) shows that, while the share of African countries' exports that stays within Africa has grown from about 8 per cent in 1989 to 12 per cent in 1995, this growth has not come from an expansion of trade within the various regional preferential trading areas, and there has been very little manufacturing or intra-industry trade (with fully one-half of this trade accounted for by petroleum, cotton, live animals, maize and cocoa). Actually, given the modest market size, the 12 per cent share should not be a surprise, as is confirmed by the use of gravity models (Foroutan 1993). In fact, the products that African countries export do not correspond to what African countries import: revealed comparative advantage does not therefore suggest a strong unexploited potential for intra-African trade (Yeats 1999).[1]

Widening the perspective to global exports of African countries, we still find a remarkable concentration in a handful of primary products (petroleum, fish, tobacco, coffee, cotton and cocoa each account for over 40 per cent of some country's exports). Inasmuch as there is some regional clustering of these export products, they can be the source of common regional shocks, whether from the terms of trade or from region-wide weather-related and other supply shocks.

Often driven by neo-protectionist motivations seeking to promote import substitution behind regional barriers, efforts to promote regional trade integration in Africa have often been too partial to have yielded overall benefits. Moreover, regional trade agreements often did not in practice function as intended and announced, detracting from their credibility (Mansoor and Inotai 1991; Radelet 1997). More limited coordination and cooperation arrangements have been more successful.

But what of monetary integration? In principle it is less likely to have a net protectionist effect by diverting trade and investment. Furthermore, credibility would be a key instrument, rather than being incidental.

2.2 Monetary cooperation experiences

2.2.1 Origins

In the colonial and post-colonial era, monetary cooperation between different countries has been more widespread in Africa than in any other part of the Developing World. Various groupings of French and British colonies cooperated on half a dozen common monetary arrangements which, as the colonial era drew to a close, covered two in every three of what are now independent states in Sub-Saharan Africa. It is worth noting that these arrangements were originally driven by administrative convenience and seigniorage considerations: issues of exchange rate policy and fiscal restraint did not at first arise.[2]

Two main approaches were adopted. The British colonies had a currency board arrangement, with the colonial currency pegged to, and (more or less) fully backed, by the pound sterling, but with seigniorage revenues accruing to the colonial administration by virtue of the interest earned on investment of the reserves in British Government Securities. (Appendix Table 1 provides a list of the members of the old British currency boards in Africa). The limited local role in these boards should be borne in mind: for example, two of the three boards had their headquarters in London.[3]

The French colonial franc was also pegged to the metropolitan franc,[4] but in this case the currency issue was eventually backed by a convertibility guarantee of the French Treasury, and by restrictions on the degree of lending that might be made to government.

The contrasts between the two systems mirrored the long-established contrasts in central banking in the governing countries. The British currency boards could be seen as modelled on the currency arrangements embodied in the British 1844 Bank Act: their balance sheets and functions resembled those of the Issue Department of the Victorian Bank of England. In contrast to the British boards, but like the Banque de France, the French-based banks of issue lent substantial sums to the local banking system, with the result that their currencies were backed to a considerable extent by claims on banks.

2.2.2 Post-independence monetary cooperation

After independence, the French systems survived much longer than the British. Two distinct franc-based monetary unions in West and Central Africa still function today, and, despite vicissitudes, most of the original members are still participants.[5] There has been just one devaluation against the French franc (by 50 per cent in January 1994). As elaborated in below, this followed a long period of economic stagnation reflecting loss of price competitiveness, fiscal indiscipline and banking collapse; subsequent growth has been quite strong.

Central banking, with its implication of policy activism, and potential and actual exchange rate variability, came to the British colonies in South Central Africa before independence,[6] and the Central African Currency Board was wound up by 1956. In West Africa, ideology, activist policy and a sense of the national currency as a symbol of sovereignty meant that most participants abandoned the currency board arrangement either on independence, or shortly after it. Sierra Leone and the Gambia continued to operate their own currency board-type arrangements for a few more years, with Gambia being the last African country to leave the sterling peg, in 1971.

The three core members of the East African Currency Board did retain their common currency until 1966—up to five years after independence, but by this stage its political viability had been eroded by fiscal activism and by wider dissatisfaction with the distribution of the benefits within the East African Community.

Neither the franc-based currency union, with its French guarantee, nor the currency board, with its rigid institutional arrangements, are particularly close to the EMU system. Indeed, the fixed peg which characterized both of these systems makes them quite different in practice from the floating exchange rate of the euro. In some respects, a more similar arrangement can be seen in the South African rand zone, where Lesotho, Namibia, Swaziland and, for a time, Botswana held their currencies at par with the South African rand, allowing the latter to circulate freely alongside local currency and receiving in return a payment in lieu of seigniorage. Of course this is not an arrangement among equals, in that South Africa is economically dominant, and does not undertake to moderate its monetary policy to meet the requirements of the other members. But the seigniorage sharing, and the flexibility of the peg vis-à-vis the outside world, are important characteristics which it shares with the EMU.

2.3 Fiscal indiscipline and monetary regimes in Africa

For those countries that did not retain the rules-based systems bequeathed by the colonial administration, post-independence monetary policy in Africa took sharply different routes in different countries (as documented in Honohan and O'Connell 1997). One route, preferred on ideological grounds by socialist-minded governments, was an economy of rationing and controls. Another possibility, though not one consciously advocated by anyone, was to give up any attempt to restrain inflation, and to allow the printing press free rein. The major goal of each of these regimes was to channel resources to the government, one through financial repression (Chamley and Honohan 1993), and the other through the inflation quasi-tax.[7] Quite often countries passed though both of these stages, slipping from a controlled regime into open inflation.

The cost of the distortions imposed by financial repression and high inflation became increasingly apparent during the 1980s, and governments moved to dismantle controls and reduced their reliance on the printing press. Although administrative credit ceilings were retained at first, the trend was clearly towards a more market-oriented regime of discretionary central banking.

But regime credibility remained low. Governments still needed to draw on the monetary system for resources, and their heavy borrowings resulted in high nominal interest rates, presumably reflecting fear of devaluation. Persistent and substantial excess returns were recorded. This

was also true of the remaining rules-based systems, such as the CFA franc zone.

2.4 The crisis of the CFA zone

2.4.1 The collapse of the 1980s—overview

At first sight, the underlying structure established for the franc zone in West and Central Africa appeared to be solid. The underlying economic philosophy of the franc zone arrangements was always that of an open and competitive market. Although established at independence, and not drastically altered since then, the institutional arrangements are strikingly modern in appearance. In particular there have been multinational central banks (which are thus independent of any one national government), rules constraining monetary financing of fiscal deficits, an open capital account, widespread presence of foreign-owned banks and the lowest inflation rates in Africa. From some points of view the regime has looked like a precursor to EMU with its single currency, its freedom of capital movements and its multinational central bank. But any attempt to draw conclusions for the prospects of wider African monetary unions must pause to consider the 1980s crisis of the CFA zone.

Until the mid-1980s, economic performance of the franc zone countries appeared to justify the high expectations which had been placed in the arrangements. The fixed exchange rate with France appeared to remove macroeconomic uncertainty and encourage external investment. Growth rates were high, even when comparison is made conditional on other country characteristics that are positively associated with growth performance. Not only were CFA franc notes used in preference to unstable and inconvertible local currencies in neighbouring countries such as Ghana and Nigeria, but some parts, at least, of the franc zone banking system were functioning so smoothly that it too received substantial deposits of flight capital from those countries.

In the end, the inflexibility and brittle character of the system's institutional mechanisms proved to be its downfall, bringing the functioning of the banking system almost to a halt in several of the countries from the mid-1980s. By the end of 1993 almost all of the countries in the zone were in deep recession. A parallel market in the CFA franc had opened up, and not only were capital movements now blocked, but effecting current international payments had become difficult. A majority of the banks had failed, though some had been

recapitalized or rescued in one form or another. Depositors in some banks had gone without access to their funds for years. The banks that continued to function now tended to be highly selective in their clientele, both on the deposit and the lending side. Interbank markets were operating on a very limited basis. Having lost heavily from the collapse of debtor banks, the central banks were close to being unable to cover their operating expenses.

Given prolonged and ultimately accurate speculation on the part of market participants that a major devaluation was in the offing, it is easy to see why the banking systems should have ended up in an illiquid position. But there was more to it than that. For years the governments in several member states had directly or indirectly pushed the banks into lending to state-owned enterprises, or to regional and political groupings, or simply to some of the governments' own suppliers who had not been paid. Over the years, the share of borrowers who could not or would not repay, including those who interpreted a politically-driven loan as equivalent to a grant, grew. Widespread insolvency in several of the banking systems became apparent from the mid-1980s.

2.4.2 Role of bank behaviour

But why did these banks, operating after all in a market environment, agree to make these loans? How did they attract resources to make such onlending? Most were joint ventures between the national governments and one of four major French-based banks; sometimes the government was the majority shareholder, sometimes not. In either case, the key senior management was provided by French nationals seconded from the parent banks in France. But the objective of the French shareholders is unlikely to have been profit maximization. They had other interests, including the commercial interests in Africa of their French customers. They will not have been unconscious of the wider political agenda of the French government, which was owner of the French banks for at least part of the period, and a strong influence at all times. This agenda was normally supportive of the governments in power. To acquiesce in commercially doubtful lending circumstances was not such a surprising decision for banks constituted with such a structure of ownership and control. Although formally autonomous, the reality for these joint-venture banks was deeply entangled in political considerations.

Nor were the banks constrained by lack of loanable resources. It is not that they had ready access to deposit resources. Indeed, deposit mobilization in the CFA has long been exceptionally low—a fact generally attributed to the

open capital market. But they were able to secure funds from the two regional central banks. To be sure, these were inhibited from much lending to governments, but they were free to refinance lending through the banking system, and in practice it was they who effectively provided the necessary resources.

Thus, although the central banks were apparently freed by statute from any fiscal pressure, they nevertheless succumbed to indirect pressure to lend through banks for relief of fiscal needs. Systematically it proved to be the insolvent banks that had relied most on the central banks for refinancing. Even the central banks' self-interest in preserving the quality of their own balance sheet (in order to ensure adequate revenue to meet their not insubstantial operational expenses) was not sufficient to limit their lending to doubtful banks. For (at least in the Western part of the zone) the statutory arrangements were understood to provide the central bank with a government guarantee of lending to banks. In this way was the circle completed and the apparently cautious rules built into the system subverted. The central banks, nominally independent, acted as if they were agents of the fiscal authorities, refinancing politically directed or government-inspired bank lending that could never be repaid.

2.4.3 A rules-based system that did not guarantee sound policy

It seems clear that the rigidity of the framework established for monetary and banking arrangements in the franc zone lulled policy-makers into a false sense of security. These rules did not guarantee the correct incentives, and indeed the very rigidity of the rules induced an evolution of banking practice which violated our incentive principles by subordinating both commercial and central banking to fiscal pressures. Three rules in particular were relied upon as nostrums which would guarantee a favourable outcome and were thus seen as inoculating the system against the consequences of mistaken policy in other spheres.

First, the exchange rate rule, which was seen as the key to macroeconomic stability: but it could not cope with the procyclical public sector wage policy and the optimistic policy of ratcheting official purchasing prices for the all-important cash crops (especially coffee and cocoa) to the highest figures attained to date. Accordingly, formal sector labour became uncompetitive, leading to recession, and the crop credits provided by the banks for the purchasing of crops at what had become unrealistic prices could not be repaid. The inability of the banking system to find a satisfactory way of funding merchants' working capital—the quintessential

and original banking product—was symptomatic of the depth of the system's failure.

Second, the rule that the banking sector could not lend the government more than a fraction of its annual revenue needs. This was seen as insulating the system from inflationary credit expansion, but it merely diverted the pressures into indirect borrowing through public enterprises and other associated bodies and through government payments arrears (which forced their suppliers to seek bank credit in anticipation of eventual payment). The consequence was an increasing degree of illiquidity in the system as payments discipline collapsed.

Third, the rule that each national government was responsible for the debts to the central bank of any insolvent bank. This reflected the partial delegation of bank regulation to national authorities but, while encouraging insouciant lending by the central bank to unsound banks, it failed to induce national responsibility in this field. The consequence here was massive bank insolvency—amounting to at least 10 per cent of zone-wide GDP. External shocks and the recession only exacerbated the poor lending decisions, often politically motivated, that led to insolvency.

It is impossible not to blame the failures on government meddling. Furthermore, other developing country banking systems have also suffered from each of the symptoms of the franc zone's banking collapse.[8] But the shocking feature of the zone is that, before the event, its design seemed to be rather fool-proof and its functioning was held in high esteem for a couple of decades. Only later did it become apparent that the brittle institutional structure and mechanistic rules, perhaps appropriate to a colonial regime, had been imported in an environment where they could not survive the political pressures and the volatility of the external environment. This underlines the need to ensure the consistency of macroeconomic and financial fundamentals with a fixed exchange rate system, regardless of the other institutional rules that are devised. Mechanistic application of automatic rules is no guarantee of a functioning banking system.

This sorry story of implosion of the CFA zone financial system, culminating in the major devaluation of January 1994, serves as a cautionary tale for fans of monetary unions and indeed of rules-based monetary systems in general. The limitations of such rules must be recognized whether they be the specific rules adopted in the CFA zone, or those of a currency board. Although the franc-zone rules were designed to protect against monetary instability, they were not sufficiently robust to deal with fiscal indiscipline on the scale that occurred. Indeed, the exchange rate peg ultimately acted to magnify the real economic effects

of imprudent fiscal and financial policy. Clearly, the institutional arrangements governing the regional central banks were not adequate to ensure for these a successful role as quasi-external 'agencies of restraint' (Collier 1991) on the national governments.

2.5 The recovery of the CFA zone

Arguably, the new light thrown by EMU (then in preparation) on currency cooperation and monetary unions was a significant factor in encouraging the CFA zone countries to stay with their arrangements at the time of the 1994 devaluation of the CFA franc, rather than going their separate ways reflecting the institutional and policy failures that had led to the old peg becoming unsustainable.

And that decision has been followed by several years of recovery and comparatively rapid economic growth,[9] combined with lower-than-expected pass-through of imported inflation into domestic CPIs in the franc zone countries.

As a result of the banking crisis in the CFA franc zone, new institutional arrangements were adopted following the Yammossoukro conference of 1990, including the centralization of responsibility for bank supervision in two regional banking control commissions. This centralization provides a new multinational 'agency of restraint' and fills a gap in the previous institutional arrangements. It is noteworthy, however, that the model adopted here diverges from that followed by the EMU, which to date has left supervision of financial intermediaries as a national responsibility. In this respect, the CFA arrangements make wider use of monetary cooperation in establishing external discipline on national fiscal and financial policy than does the EMU.

With the macroeconomic recovery, and some reason for new confidence in the institutional arrangements, it is not evident that the CFA zone faces any significant new challenges as a result of the EMU.[10] Indeed, that the euro is now the peg rather than just the French franc should ensure greater nominal and real exchange rate stability on average vis-à-vis trading partners.

The main questions thus relate to the remaining African countries. Does EMU, together with the new focus on the use of a common currency as an insulator against contagious or correlated capital movements, and on the use of regional financial authorities as a quasi-external discipline on

national financial policy, point to any increased likelihood of additional cooperative arrangements?

III AFRICAN MONETARY UNIONS: DOES EMU CHANGE THE CALCULATION?

Will EMU be an inspiration for the formation of monetary unions among groups of African countries? Does the existence EMU shift the balance in favour of one or more AMUs? In this revived debate, the usefulness of AMUs is usually assessed in one or more of the following four dimensions: as an agency of restraint on governments; as a bulwark against contagious speculation; as a way of achieving economies of scale in the financial sector, and finally in a traditional role as an OCA involving arguments related to the pattern of trade and to the degree of factor mobility.

The major observation that must be made here is that Africa is not Europe: the economic and political structures of the two continents are very different. Thus the question of whether there should be AMUs is a very different one to the EMU debate. In this section, we identify some of the key empirical contrasts between Africa and Europe relevant to each of these four key dimensions of the policy debate.

3.1 Monetary union as an external agency of restraint

3.1.1 Political considerations

The record of macroeconomic mismanagement in many African countries means that there is a strong case for delegation of monetary policy, if a suitable supranational monetary authority exists.[11] Put differently, since policymaking resources are scarce in Africa, it may make sense to 'outsource' monetary policy as one possible resolution to the search for 'agencies of restraint' (Collier 1991).[12] However, a supranational monetary authority may require some degree of political integration, if it is to be accepted as democratically accountable.[13]

Political integration may be desirable also to minimize the 'hold up' problem in the setting of monetary policy. As formalized by Dixit (1999), a common monetary policy that is the outcome of bargaining among

member countries will be skewed towards that required by the country with the weakest fundamentals, if all participation constraints are to be satisfied. A plausible conjecture is that this commitment problem can be ameliorated by political integration, since national interests will subside relative to a pan-AMU welfare criterion.

In the absence of sufficient political integration, such a supranational monetary authority (plus the attendant financial regulatory structure) must be very carefully designed. This point is well illustrated by the banking crisis of the 1980s in the CFA zone (discussed above), inasmuch as the design of the CFA system itself generated the perverse incentives for national government to encourage excessive lending by commercial banks.

There has been no strong impetus for African political integration. As is widely recognized, the primary driving force behind EMU has been the politics of European integration. Eichengreen (1999) and Buiter (1999) point to the risks of monetary union in the absence of some degree of political union.

There is a significant risk for any attempt to use monetary union to spearhead regional economic cooperation within parts of Africa where economic cooperation has so far been limited. The speedy collapse of the post-colonial currency boards suggests that the survival of the franc zone may ultimately have been based on the continuing flow of financial assistance to members from France that was perceived as being linked with the currency union (though use of the automatic overdraft facility was much smaller than the cumulative flow of other aid from France over the years). Nevertheless, were the UK to join EMU, thereby increasing the attraction of an euro-peg for non-franc zone countries, it is hard to avoid contemplating the prospect of monetary considerations promoting at last a greater degree of cooperation across the old colonial boundaries as represented by the anglophone/francophone divide, especially in West Africa. This political and administrative process would likely be a more potent force for economic integration than the direct effect of achieving exchange rate stability across African borders.

Certainly no union will be a success if certain underlying pre-requisites are absent: not only fiscal discipline (here the demonstration effect of the high profile given to the Maastricht criteria could be useful), but more generally well-designed and robust political and economic institutions—something that could be assumed at the international level for the European Union in a way that will take time to build for would-be AMUs.

3.1.2 Seigniorage

Loss of seigniorage is a major fiscal consequence of monetary discipline. A monetary union targeting low inflation will generate only a limited amount of seigniorage. To date, Africa relies more on seigniorage than Europe. The generation and distribution of seigniorage is a classic analytical question in the currency union literature and may have more relevance for Africa than in the EMU debate.

The heavy reliance by African countries on seigniorage in recent years is illustrated by the mean flow seigniorage at 1.8 per cent of GDP per annum 1980-97, falling only to 1.6 per cent in 1990-97. Even exclusion of the hyperinflation countries Zaire (now Democratic Republic of Congo) and Mozambique still leaves mean flow seigniorage at 1.4 per cent per annum. The year-to-year fluctuations in seigniorage have also been substantial, with the mean across countries of year-to-year standard deviations at over 2 per cent of GDP (Table 1).

TABLE 1
AFRICA: APPROXIMATE SEIGNIORAGE AS % GDP SINCE 1980

% of GDP per annum	1980-97	1990-97
39 Sub-Saharan countries:		
Overall mean (unweighted)	1.79	1.60
Standard deviation of country means	2.11	2.15
Mean of year-to-year standard deviations	2.91	2.20
Excluding Zaire and Mozambique:		
Overall mean (unweighted)	1.37	1.24
Standard deviation of country means	1.09	1.19
Mean of year-to-year standard deviations	2.04	2.01

Source: Calculated from International Financial Statistics.

Note: This uses the simplest measure, namely year-end to year-end change in reserve money as share of annual GDP. While this is a reasonable approximation for most countries, it tends to overstate true seigniorage by the degree to which bank reserves are remunerated, and because the flow of nominal seigniorage typically increases through the year.

The experience of the EMU shows how quickly the Mediterranean EU countries adjusted their policies to absorb the loss of seigniorage resulting from adherence to a hard currency policy.[14] This example reinforces many other reasons which make it doubtful whether higher past seigniorage should be seen as an important argument against achievement of currency stability.

Potentially as relevant as the overall size of seigniorage and other benefits is the question of their distribution. This was the Achilles heel of the East African Community, and also caused problems in the franc zone (Honohan 1991). To survive, any new arrangements will need to anticipate and make adequate provision for the equitable sharing of net benefits.[15]

3.2 Underdeveloped banking and financial sectors

Twenty-eight of the world's smallest 50 financial systems are in Africa. This fragmented financial system entails substantial inefficiencies and has a limited ability to act as a shock absorber. The economies of scale that are unexploited because of the small size of African financial systems range from those that arise at the level of the individual financial intermediary, to those entailed in the production and use of currency, in the administrative costs of bank supervision and in operating organized securities exchanges. The small size of African financial markets is strikingly illustrated by the fact that the four smallest African stock markets have a collective total of fewer than 60 companies listed.

In particular, increasing recognition of the high administrative cost of bank supervision points to the attractiveness of international cooperative arrangements for prudential regulation of banks and other financial intermediaries and institutions. This could be encouraged, but is not necessarily entailed, by formation of a currency union. Here the EMU does not provide a template, bank supervision remaining for the present a national responsibility. Indeed, it might be argued that cooperation in bank supervision might be more effectively sought as a specific goal independent of the wider issue of monetary union. After all, as mentioned above, prior examples of successful international cooperation in Africa indicate that limited and focused initiatives have more likelihood of success than more far-reaching attempts at integration. Even establishment of a cross-country authority for prudential regulation of banks may seem somewhat ambitious in this context, but it has been achieved by the CFA countries, and—by distancing the supervisors from the improper pressures so often brought to bear by politicians and other influential persons, especially in small economies—it could help enhance the effectiveness of bank supervision (Caprio and Honohan 1999).

Regionalization of banking could also offer some potential for risk-reduction through better international diversification of loan portfolios. National frontiers, often seen as important barriers to the information

flows that are key to effective bank lending, may be less so in the many parts of Africa where national frontiers bear little relation to ethnic and language groups. Internationalization of the banking sector can also contribute to the minimization of vulnerability to financial crisis. A foreign-owned bank can rely on its home country supervisor to act as lead regulator and its monetary authority to act as lender of last resort. Multi-country banks are more diversified and hence less vulnerable to a downturn in any one country. Moreover, foreign banks can improve expertise in the domestic banking sector, for instance through the introduction of more sophisticated risk control techniques. A common currency might facilitate the development of cross-border banking, though it may not be necessary and the experience of the CFA zone shows that it is certainly not a sufficient condition (Honohan 1991), as does the early experience with EMU.

3.3 Monetary union as a bulwark against speculative contagion

African countries typically do not possess deep or liquid domestic financial markets.[16] Most asset trade (e.g. issue of government debt) is denominated in international currencies. On the one side (continuing the theme of the previous subsection), this increases the incentive for monetary integration, in order to achieve the scale required for effective functioning of liquid financial markets.[17] On the other side, the lack of a tradable currency or assets means that, unlike EMS currencies in 1992-93, African countries are currently 'below the radar screen' of international speculators, reducing exposure to contagion problems.

As noted by Calvo (1999a), the optimal currency area literature has signally ignored financial factors.[18] If Africa is regarded as a cluster on world financial markets, it follows that there is a strong interdependence between their individual monetary and exchange rate policies. For instance, a devaluation by one country may spark speculative attacks on other members of the same financial cluster. In the presence of such an externality, it is inefficient to set non-cooperative policies.[19]

Why might African countries be clustered together by international investors? The patterns of contagion that have been identified in recent years admit multiple interpretations but Kaminsky and Reinhart (1998) find that a financial chain is the dominant mechanism. A financial cluster is seen as operating along the following lines: First, if countries share a common creditor, a non-performing loan in country A hurts the balance sheet of the creditor, who in turn may call in or refuse to rollover a loan

to country B. (This effect is strongest if the creditor has a weak initial position, so that it cannot absorb bad loans). Second, countries may be linked by cross-market hedging: based on historical correlations, if A falls, the trading programme instructs the trader to exit B. Third, redemption/margin calls may force an investor to sell B in the wake of a decline in A in order to restore liquidity. Fourth, herding may occur: if A and B are superficially similar (e.g. neighbouring countries), uninformed investors will exit B if A declines.

Is the financial cluster story relevant to Africa? If Africa is too small to warrant inclusion in international portfolios, it may be shielded from the fickleness of international investors by default. (Of course, this comes at a heavy price in terms of lack of access to private capital flows, inhibiting the pace of development and reducing the ability of Africans to lay off part of domestic production risk.) Besides, lack of developed domestic financial markets reduces liquidity and limits the scale and speed with which a capital outflow can be engineered by speculators. Paradoxically, in some respects creation of AMUs could actually increase the exposure of the member states. After all, by making the investment unit larger, formation of an AMU may make viable the formation of liquid and deep domestic financial markets. But the improved liquidity and increased scale may in turn attract international investment institutions, making the union radar-visible and thereby increasing vulnerability to an external run (Goldfajn and Valdes 1997). In this scenario, while no individual member would be vulnerable to speculation differentially targeted at it, the union as a whole might be.

A further point limiting the likely extent of contagion is that, to the extent that Africa does have private external liabilities, these are largely owed to colonial powers and such creditors might be expected to be better-informed investors.

But to the extent that the contagion story is nevertheless relevant, it is worth examining whether African countries cluster in regard to their sources of external bank finance, in that such clusters could conceivably be seen as the basis for a common currency policy. In fact, there are such clusters. Indeed, African dependence on bank finance is concentrated to a large extent on a small handful of countries. The largest single source accounts on average for over 60 per cent of total identified industrial country bank financing of Sub-Saharan African countries. Here the old colonial connections have persisted to a greater extent than in trade. In more than one-half the countries, the former colonial power is still the largest source of bank financing. Table 2 shows how French banks are

still the major source of financing for most of the former French colonies. The British connection also holds up in much of eastern and south-central

TABLE 2
THE PATTERN OF AFRICAN DEPENDENCE ON INDUSTRIAL COUNTRY BANKING SYSTEMS

	Bank (a)	Colony (b)		Bank (a)	Colony (b)
Algeria	F	F	Eritrea	I	I
Benin	F	F	Namibia	D	D
Burkina Faso	F	F	Djibouti	F	UK
Cameroon	F	F	Kenya	F	UK
Central African Republic	F	F	Lesotho	F	UK
Chad	F	F	Mauritius	F	UK
Comoros	F	F	Seychelles	F	UK
Congo	F	F	Burundi	F	BE
Gabon	F	F	Rwanda	F	BE
Guinea	F	F	Zaire	F	BE
Ivory Coast	F	F	Angola	F	PT
Madagascar	F	F	Somalia	F	I
Mali	F	F	Nigeria	D	UK
Mauritania	F	F	South Africa	D	UK
Morocco	F	F	Zambia	D	UK
Niger	F	F	Guinea Bissau	D	PT
Senegal	F	F	Mozambique	D	PT
Togo	F	F	Sao Tome & Principe	D	PT
Tunisia	F	F	Ethiopia	D	I
Botswana	UK	UK	Gambia	AT	UK
Ghana	UK	UK	Malawi	AT	UK
Tanzania	UK	UK	Swaziland	CAN	UK
Uganda	UK	UK	Sierra Leone	BE	UK
Zimbabwe	UK	UK	Cape Verde	E	PT
			Equatorial Guinea	USA	E

Source: BIS-IMF-World Bank data.

Note: (a) Largest source of bank finance;(b) Former colonial power

The left hand column shows the industrial country from which each African country receives most bank credit; the right hand column identifies the principal former colonial power.

Africa, though German banks dominate in several of the larger countries. Other largest sources for particular countries are Belgium, Austria, Canada, Italy, Spain and the United States. The average share coming from EU countries (other than Portugal) is 81 per cent, and only six of

fifty African countries shown have less than two-thirds of their bank credit coming from the EU.

To the extent that these banking links argue for a common currency policy to protect against contagion based on common source countries, there are clear implications for the use of a euro peg, depending again on whether the UK is a member.

On the other hand, it needs to be noted that there is little evidence of contagion in the currency experience of African countries. Africa has not been hit by clusters of exchange rate crises, whether one includes only successful crises (as indicated by monthly depreciations greater than 3 standard deviations from the mean monthly dollar depreciation against the US dollar) or by severe reserve losses (again measured by 3-standard deviation outliers). Only on four occasions did more than three countries have an exchange rate crisis, thus defined, in the same month, two of these were rand-zone movements and a third was the CFA franc devaluation of January 1994. The fourth case was in March 1991 and involved seven countries with a maximum devaluation of 11 per cent. There has been even less clustering of reserves crises, and those that occurred did not coincide with the exchange rate crisis clusters. Thus, so far the threat of contagious or correlated currency attacks does not seem to have been present in Africa (Table 3).

TABLE 3
CLUSTERING OF EXCHANGE RATE OR RESERVES CRISES IN AFRICA, 1980-98

	No. of months	
No. of countries with crisis	Exchange rate crisis	Reserves crisis
none	69	83
1	28	19
2	5	4
3	4	2
4	0	0
5	2	0
6	0	0
7	1	0
8 or more	1	0

Data source: International Financial Statistics.
Note: Includes Maghrib countries. See text for definition of crisis.

To be sure, formation of AMUs and the optimal exchange rate regime could have a dynamic element. We have noted that individual African countries are financially backward but that each AMU may endogenously develop deeper, more liquid financial markets and more effective financial intermediation through a consolidated banking system. The improved development of domestic financial and banking sectors should improve the access of Africa to private international capital flows. In itself, this is highly desirable but also makes it more likely that Africa will be more exposed to capital market volatility in the future. If newly-created AMUs do actually form a cluster on international financial markets, this enhanced exposure to contagion effects may in turn prompt a new round of policy coordination among the AMUs and possible mergers to create a smaller number of larger currency unions.

3.4 Patterns of economic interdependency

The traditional OCA literature focuses on the pattern of economic interdependency of potential union members, and emphasizes openness to mutual trade, diversification of individual economies and mobility of factors, especially labour, as criteria for membership. Exploration of the extent to which members are subject to idiosyncratic shocks is also part of this agenda. Experience with the formation of EMU suggests that these considerations need not be decisive in practice, as the case for Europe as an optimal currency area is lukewarm at best (Wyplosz 1997). No attempt is thus made here to replicate for Africa the various OCA tests that have been employed in the literature for Europe.[20] However, it is worth noting that the degree and pattern of economic interdependence in Africa is dramatically different from that in Europe. The differences suggest in particular that any currency union that might be formed would have an external anchor; the formation of EMU makes the euro a front-runner in the role.

Thus, suppose that one or more AMUs are formed. Any such AMU will still be economically small relative to the size of the global economy and will have a much larger dependence on external trade and capital flows than do the EMU zone or the US. Accordingly, unlike the EMU case, the choice of exchange rate regime remains a crucial policy issue for an AMU.

3.4.1 Lack of an internal anchor

The main nominal anchor for the EMU is the internal price level of the zone. This makes sense for a large and rather inertial economic area. But the overall African economy is not large enough to represent a substantial currency bloc on its own (total GDP of Sub-Saharan Africa at market prices is comparable to that of Denmark or Pennsylvania). Of course that does not preclude use of the domestic price level or other internal nominal anchors, but it does increase the likelihood that the monetary and exchange rate policy of any African currency union would make at least some reference to an external anchor.

Furthermore, there is no obvious internal anchor-country for most potential AMUs. The EMS effectively evolved into a DM-zone; the ECB was modelled on the Bundesbank. The monetary history of Africa does not provide comparable candidates, even if South Africa plays this role in the limited context of the rand zone. It is easy enough to point to certain countries that naturally assume economic leadership in various regions of Africa. South Africa and Nigeria are obvious candidates; the former because of the size and strength of its economy, the latter because of population and oil wealth. But there are others too: Côte d'Ivoire, along with Cameroon, Senegal and Gabon among the francophones; Kenya and Zimbabwe, along with Tanzania and Uganda among the anglophones. These indeed have the largest economies in Africa. But none combines size and a track record of financial stability to a degree matched by Germany in the EMS. So it is unlikely that, aside from the rand zone, any new currency arrangement centred on a particular African country would emerge.

Besides, as is well-known, the pattern of African trade is largely external (Yeats 1999), with bilateral flows between African countries much less important compared to intra-European trade. This can partly be explained by the obvious difference in the level of development between Africa and Europe, with each individual African country producing its own particular mix of primary commodities for export much more than engaging in intra-industry trade. Moreover, the geographical/natural barriers to internal trade are much higher in Africa. Although many regional trade agreements have been negotiated in Africa, there are no grand programs to build single markets along the lines of the European model.[21]

The modest scale of intra-African trade, combined with the absence of a natural internal anchor, would thus appear to point to the relevance of an external anchor for any union, but which external anchor? Trade with

Europe is a key component of African international relations. In 28 of 45 former colonies, the former colonial power is still the largest source country for imports. Still, imports from former colonial powers account for only 16 per cent of total imports. Imports from the euro area as a whole are more important, but still account for only 32 per cent of total imports on average (Table 4).

TABLE 4
SHARE OF EMU IN EXPORTS FROM AND IMPORTS TO AFRICA, 1997

	Imports to Africa			Exports from Africa		
	Average	Minimum	Maximum	Average	Minimum	Maximum
EMU as % total	35.6	4.9	71.8	38.4	3.9	88.1
EMU as % industrial countries	63.1	19.9	96.6	67.0	14.0	99.3
EMU+UK as % industrial countries	74.7	32.7	97.3	75.0	14.4	99.4

Source: *Direction of Trade*. NB: Data for Belgium and Luxembourg is for 1996
Note: Unweighted country averages.

If one were to choose a peg on the basis of trade weights, simplistic calculations would tend to point in the direction of the euro.[22] After all, the share of euro countries in African imports from the industrial world exceeds one-third in each African country (with the exception of Sao Tome-Principe). If the UK were to join the euro, this minimum share would jump to 54 per cent. (Imports from the US are much smaller, though this clearly understates the importance of the US dollar in pricing and invoicing of world trade.)

Several viable options exist for the exchange rate policy of a new AMU. One would be to the new currency (probably not called the *afro*?) float—in the sense of avoiding any explicit commitment to an exchange rate target. Even in this case, it is likely that the monetary authority will in practice seek to avoid excessive volatility against the euro, both in order to stabilize the domestic price level and to minimize disruptive real exchange rate fluctuations. These considerations are especially important in the early stages of launching a new currency, in order to establish a respectable 'track record'. The other option is to adopt some form of formal exchange rate peg against the euro, ranging from a target zone to euro-ization. There is no clear consensus on the option value of retaining some degree of freedom to adjust the value of the exchange rate. On the one side, some flexibility is desirable in the event of a large terms of trade

or productivity shock or a local financial panic.[23] On the other, committing to a hard peg reduces interest rate premia and permits the reallocation of scarce domestic talent away from management of the exchange rate regime.[24]

A prudent evaluation is that no single regime cannot be recommended for all African nations at all times, even taking into account the growing importance of financial factors in addition to the normal OCA criteria (see also Frankel 1999).

3.4.2 Potential role for EMU in facilitating AMU

Here there is a potential catalytic role of the EMU itself in facilitating any AMU that African countries might decide to establish. Would there be benefits for the EMU, by reducing noise in the bilateral rates of exchange with these trading partners, or more generally by helping to stabilize their economies? This question is similar to those discussed for the EMU fringe currencies in Honohan and Lane (1999). The answers there—that there can be some benefits to the EMU in facilitating exchange rate stability in external trading partners—also apply here, but with less force, because of the smaller size of Africa and the absence of a dynamic towards EU membership.

If it is to avoid serious problems of moral hazard, any intervention by the EMU in the direction of underwriting cooperative exchange rate arrangements in Africa would have to be on a much more limited scale than has been the case for France in respect of the CFA unions.

3.4.3 The route to AMU?

A new AMU could be formed in one of three ways. First, it is conceivable that a set of neighbouring countries could come together and formally negotiate the establishment of a common currency area. Second, some countries could opt to abandon its own currency and use the currency of a larger neighbour. Third, countries that independently adopt a common external anchor may opt to pursue a joint peg rather than seek to maintain individual bilateral exchange rate commitments.

With respect to the third route, with fashions in exchange rate policy moving to the poles of free floating or currency board, it is likely that at least some African countries will opt for some form of currency board arrangement vis-à-vis an international currency. For such countries, the euro will *a fortiori* be an obvious candidate as a peg. Combined with the

administrative and other economies of scale involved, that does suggest that *joint* currency board arrangements may be far preferable to a proliferation of single country currency boards. The viability of a currency board arrangement depends on the credibility attached to adherence to currency board rules. Here the mutuality of the joint arrangement can be an important strength in helping to ensure the board's survival as an agency of restraint. Thus hitherto unlinked countries who individually desire a currency board would do well to consider joining forces with others to save on costs and to reinforce credibility.[25] Indeed, this back-door route may be the most likely scenario under which a new AMU is formed: via cooperation among nations that individually decide to peg to the euro.

IV CONCLUDING REMARKS

The arrival of the euro does not radically alter the prospects for greater monetary cooperation in Africa. Perhaps the most intriguing possibility is the potential, were the UK to join, of the euro being adopted as peg by both anglophone and francophone countries. This could open the door to new dimensions of international economic cooperation in Africa.

But one should not expect too much from such arrangements. In particular, although the sources of bank finance to Africa are largely clustered in a handful of European countries, there is little evidence of contagious attacks on African countries requiring coordination of exchange rate policies. And economies of scale in the prudential regulation of financial systems could be achieved through international cooperation without the need for a common currency. The same is true of enhanced risk-pooling through the financial system.

However, if some additional African countries are to have a joint peg, the pattern of current trade and financial links points to the euro now as a much more attractive peg than any of the individual European currencies have been. This will become more true if sterling joins, in which case the euro would likely be a superior peg than the US dollar. In this way, while the arrival of the euro thus widens the options for a joint peg, it need not decisively shift the balance of advantages in favour of adoption of a larger number of common currency arrangements in Africa.

NOTES

[1] That said, Yeats notes that the volume of inter-African is likely understated in the data. Distorted real exchange rates may have skewed the pattern of trade among sets of countries during particular intervals. However, extensive use of vehicle currencies has limited the impact of nominal exchange rate variability on trade.

[2] Curiously, although the Banco Nacional Ultramarino was the designated bank of issue in most of the Portuguese colonies, in Angola it was superseded in this role by a newly established Banco de Angola in 1926. Thus the two largest Portuguese colonies in Africa did not have a cooperative monetary arrangement, even though each had a colonial currency circulating at a fixed parity with the escudo; these arrangements were promptly abandoned following the collapse of Portuguese rule in 1975. While the successor currencies were, for many years, ostensibly stronger than the escudo, this was at the cost of severe price and exchange controls and rationing. Currency for the Belgian colonies was issued at par with the Belgian franc from 1909 by the private Banque du Congo Belge, and from about 1950 by the Central Bank of the Belgian Congo and Ruanda-Urundi.

[3] There has been a recent tendency to exaggerate the degree to which currency boards functioned mechanically and smoothly. Each had a certain amount of policy discretion, and the East African Currency Board went through a severe crisis in the 1930s with its sterling assets dipping below one-fifth of the currency issue. However, it recovered well and by 1963 assets (86 per cent in sterling) exceeded liabilities by over 12 per cent (Crick 1965).

[4] Though it did not devalue with the latter in 1948, thereby setting one CFA franc equal to two French francs until the latter was recast as one-hundredth of the new French franc in 1959.

[5] Guinea did not stay with the CFA franc on independence, and Mali dropped out for a while. Tiny Equatorial Guinea (1985) and Guinea Bissau (1997) have been new recruits. The story of Maghrib currencies, the Comoros and Madagascar would take us too far afield.

[6] The ubiquitous role of a Mr J. B. Loynes of the Bank of England in the last years of the currency boards is interesting. It was he who wrote the 1957 report advising the Nigerian government to set up a central bank. A few years later we find him as a member of the East African Currency Board advising them to seek a revised mandate allowing such activities as discounting bills and lending for the financing of crops. He is also the author of the West African Currency Board's official history.

[7] See Beaugrand (1997) for the extreme example of Zaire, which saw the highest inflation rates ever recorded in *International Financial Statistics*, with consumer prices increasing one-thousand-fold in the twelve months from October 1993.

[8] Ironically, the local branches of the Bank of Credit and Commerce International (BCCI) were among the few banks in the zone whose liquidity seemed assured in the zone.

[9] GDP growth averaging between 5 and 6 per cent annually 1995-98 in the UEMOA and between 4 and 5 per cent in the CEMAC—higher or equal to that achieved in the

remainder of Sub-Saharan Africa, instead of trailing the latter as the CFA zone had for several years before the devaluation. Inflation in 1994 was about 40 per cent, followed by an average of 5 per cent per annum in the following years.

[10] The budgetary arrangements with France have not been affected by the advent of EMU.

[11] See Collier and Gunning (1999) for a recent survey of African economic performance.

[12] The potential for regional integration to generate political externalities is explored by Schiff and Winters (1998).

[13] See Stasavage (1997) on the political economy of the CFA zone.

[14] Admittedly, this adherence by EU countries resulted in a considerable lowering of funding costs which, in some cases, may have more than fully offset the loss of seigniorage. Such gains would not be as substantial for African countries with their relatively smaller internal debt.

[15] The Franc and Rand zones both include a seigniorage sharing mechanism.

[16] An important exception is South Africa.

[17] This raises the question of the optimal currency denomination of public debt in a currency union. In the EMU debate, a major concern was that undisciplined fiscal policies by individual member states might threaten overall monetary policy. One option is to require government debt to be issued in external currency, in order to reduce the incentive to inflate away the debt. The downside, of course, is that the existence of external liabilities can constrain the use of monetary policy in adjusting to shocks, since devaluation would raise the domestic burden of external debt.

[18] He notes that the word finance is absent from the index of De Grauwe's popular textbook on EMU.

[19] In the context of the Asian crisis, Rose (1998) recommends the creation of regional monetary funds in response to this interdependency problem.

[20] Migration would be an important element in any such discussion. While there has been substantial international migration within Africa, it can be argued that much of this is either structural in nature (as in the migration from the Sahel to coastal cities) or attributable to famine and armed conflict.

[21] Although bilateral intra-African trade may be low, African countries do export into common 'third' markets and so there exist indirect trade linkages. Following the analysis of Corsetti *et al*. (1998), the case for a common monetary policy is strongest if (a) goods produced by individual African countries are close substitutes for each other on third markets; (b) these goods are close substitutes for the goods produced by the home producers in third markets; and (c) export prices are denominated in domestic currency such that a devaluation raises competitiveness.

[22] Rather, Cohen, Kristensen and Verner (1999) recommend a basket peg (50 per cent euro, 50 per cent dollar).

[23] See Eichengreen (1998a, 1998b, and 1999), Chang and Velasco (1998, 1999) and Velasco (1999).

[24] See Buiter (1999), Calvo (1999a, 1999b) and Dornbusch (1999).

[25] There is a certain contemporary resonance in the contrast between the Bank of England man Mr J. B. Loynes' advocacy of nationally autonomous central banks (see above) and the advice given to Tanganyika by Dr E. Blumental of the Deutsche Bundesbank to stay with the East African Currency Board, keeping national financial policy activism separate from matters of currency (Crick 1965). Was it the same Dr Blumental who later gave Mr Mobuto some good advice that would have avoided Zaire's hyperinflation, but got no thanks for it (Meditz and Merrill 1993)?

APPENDIX

APPENDIX TABLE
MULTI-COUNTRY COLONIAL CURRENCY BOARDS OF SUB-SAHARAN AFRICA

	Dates of operation	Date of independence	Years of post-independence operation
West African Currency Board (London) (West African £=£stg)			
Cameroons (part now in Nigeria)	1916-59	1959	0
Gambia	1913-71	1965	6[e]
Gold Coast (now Ghana)	1913-58	1957	1
Nigeria	1913-59	1960	-
Sierra Leone	1913-64	1961	3
Togoland (now part of Ghana)	1914-58	1957	1
East African Currency Board (London) (East African Shilling: 20 to the £stg)			
Aden [a] (now in Yemen)	1951-72	1967	5
British Somaliland [b] (now in Somalia)	1942-61	1960	1
Eritrea [c]	1942-45	1993	
Ethiopia [c]	1942-45		
Italian Somaliland [b] (now in Somalia)	1941-61	1960	1
Kenya	1897-1966	1963	3
Tanganyika (now in Tanzania)	1920-66	1961	5
Uganda	1919-66	1962	4
Zanzibar (now in Tanzania)	1936-66	1961	5
Southern Rhodesian Currency Board[d] (Salisbury–Harare) (Rhodesian £=£stg)			
Northern Rhodesia (now Zambia)	1940-56	1964	-
Nyasaland (now Malawi)	1940-56	1966	-
Southern Rhodesia (now Zimbabwe)	1940-56	1965/79	-

Source: Based on Crick (1965); Hanke, Jonung and Schuler (1993); Sayers (1952).

Notes: [a] (Not in Africa). Currency named South Arabian/South Yemen dinar (=£1) from 1965

[b] Formally entered system 1951. Currency named Somali from 1950 (1 Som = 1 EASh).

[c] Wartime user only.

[d] Known as Central African Currency Board from 1953 (Federation of Rhodesia and Nyasaland).

[e] Gambian £ from 1964.

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