Chapitre 2

ANALYSES

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2.1 Effets du développement de la monnaie électronique

2.1.1 Introduction

Le progrès technologique conduit à une métamorphose profonde du métier d'intermédiation financière et les systèmes de paiements, qui constituent une des principales fonctions des banques, n'échappent pas à ce développement. Dans le domaine des paiements *retail*, nous avons pu constater l'utilisation accrue de moyens de paiements électroniques comme les cartes de débit et de crédit qui ont, depuis déjà un certain temps, remplacé des instruments plus classiques tels que les chèques ou la monnaie fiduciaire. Cependant, la monnaie fiduciaire a su garder jusqu'ici sa position prédominante dans le domaine des paiements *retail* de faible valeur. Ceci pourrait toutefois changer avec l'avènement de la monnaie électronique.

Par la suite, nous tenterons d'analyser les effets d'une prolifération de la monnaie électronique sur les agrégats monétaires.

2.1.2 Définition

La monnaie électronique désigne le code binaire sauvegardé dans un porte-monnaie électronique, le code binaire représentant des unités monétaires. Le porte-monnaie électronique peut prendre diverses formes avec la carte à puce comme support le plus répandu mais d'autres supports sont également possibles comme par exemple le disque dur d'un ordinateur.

La BCE définit la monnaie électronique comme suit :

«Electronic money is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument.»[1]

Cette définition reprend les caractéristiques principales de la monnaie électronique :

1. La monnaie électronique est définie comme des unités monétaires électroniques sauvegardées sur un support technique. La BCE s'abstient de définir le type de support technique étant donné que les développements dans ce domaine risquent de rendre caduque toute définition trop étroite.
2. C'est un instrument prépayé qui permet d'exécuter des transactions sans faire intervenir nécessairement les comptes bancaires. Ainsi sont exclus tous les instruments de paiement électronique traditionnels du type carte de crédit ou de débit, c'est-à-dire des instruments qui nécessitent une autorisation en ligne avant que le paiement ne soit exécuté. En règle générale, tous les instruments d'accès qui permettent aux clients d'accéder à leurs dépôts via un lien de communication électronique, par exemple à l'aide d'un ordinateur relié à internet ou encore simplement à l'aide du téléphone, ne sont pas considérés comme de la monnaie électronique.
3. En précisant que la monnaie électronique peut être utilisée pour faire des paiements à des entités autres que l'émetteur, la BCE exclue de plus les cartes prépayées mono-prestataires comme par exemple les cartes de téléphone.

2.1.3 Fonctionnement

2.1.3.1 Structuration du code binaire

Le code binaire contenu dans un portefeuille électronique peut être structuré de deux façons. Il peut ainsi sauvegarder un compte électronique où est inscrit l'ensemble des écritures de débit et de crédit relatif aux transactions effectuées. Une autre possibilité est de sauvegarder des billets électroniques, identifiés par un code unique. Dans ce cas, le solde de monnaie électronique disponible correspond à la somme des billets électroniques sauvegardée sur le support technique.

2.1.3.2 Transmissibilité

On distingue les systèmes de circulation ouverts et les systèmes de circulation fermés.

Dans le premier cas, la monnaie électronique peut circuler librement entre utilisateurs sans devoir être retournée à l'émetteur après chaque paiement. L'utilisation de monnaie électronique est alors semblable à celle de billets de banque. Ce système garantit l'anonymat des utilisateurs étant donné que l'émetteur n'a pas de possibilité d'identifier le détenteur de la monnaie qu'il a émise. L'inconvénient de ce type de système est cependant une sécurité moins élevée car le risque de fraude

1 *BCE*, Report on electronic money, *August 1998.*

augmente avec le nombre de transferts exécutés sans l'intervention d'un opérateur central.

Dans un système de circulation fermé, chaque unité de monnaie électronique n'est utilisée qu'une seule fois et après chaque transaction, l'émetteur rembourse la monnaie électronique. Dans certains cas, ces systèmes permettent d'identifier le détenteur et offrent plus de sécurité, notamment en cas de destruction accidentelle ou d'utilisation frauduleuse de monnaie électronique. Ce type de monnaie est le plus répandu actuellement.

2.1.3.3 Les différents intervenants

Différents acteurs interviennent dans un système de monnaie électronique et peuvent être classés dans trois groupes distincts:

1. Un système de compensation et de liquidation forme le premier groupe. Il est composé par des établissements financiers, des chambres de compensation et un agent de liquidation et ne diffère pas des autres systèmes de paiements classiques.

2. Le deuxième groupe comprend l'émetteur, l'acquéreur et l'opérateur de monnaie électronique. Un tel système peut être conçu autour d'un seul ou de plusieurs émetteurs. En règle générale, les émetteurs de monnaie électronique sont des banques. L'acquéreur est la banque du commerçant qui est réglé en monnaie électronique. L'opérateur s'occupe des aspects techniques du système.

3. Enfin, le dernier groupe est constitué par les utilisateurs qui peuvent être séparés en deux ensembles, à savoir les consommateurs et les commerçants.

2.1.3.4 Devises

En règle générale, les unités monétaires renfermées dans les portefeuilles électroniques sont libellées dans la devise locale. Des paiements en devises étrangères sont parfois possibles. Dans ce cas, l'information concernant le taux de change à appliquer s'obtient par une source externe, par exemple un GAB ou le terminal du commerçant.

2.1.3.5 Paiements transfrontaliers

Il existe quelques projets pilotes en matière de transactions transfrontalières par portefeuille électronique, notamment celui liant le portefeuille électronique luxembourgeois Minicash aux systèmes allemands et français. Mais l'incompatibilité technique des systèmes en vigueur dans les différents pays constitue actuellement le frein principal à une interopérabilité des portefeuilles électroniques.

2.1.4 Les effets sur les agrégats monétaires

2.1.4.1 Classification statistique

- Traitement comptable

Les paiements sont effectués par l'intermédiaire d'un émetteur de monnaie électronique (l'émetteur). En conséquence, les agents économiques, désirant effectuer des paiements en utilisant de la monnaie électronique, doivent ouvrir un compte de dépôt auprès de l'émetteur. Ce dépôt est alimenté par un transfert de fonds de la banque de l'agent payeur (le consommateur) vers l'émetteur ou encore par un apport en liquide. Le bilan de l'émetteur se présente alors comme suit:

actif	*Émetteur*	*passif*
Créance sur la banque du consommateur +€100	Dépôt du consommateur	+€100

Tableau 1: Transfert de fonds vers l'émetteur

Le consommateur peut à présent prélever de la monnaie électronique. Ceci se fait en substituant la dette représentée par le dépôt du consommateur par une dette représentant la monnaie électronique émise. Cette dette peut être soit un compte regroupant l'ensemble de la monnaie électronique émise et qui n'est donc pas attribuable à un agent économique en particulier, soit un compte qui est spécifique à un agent économique. Le bilan de l'émetteur se présente dès à présent comme suit:

actif	*Émetteur*	*passif*
	Dépôt du consommateur	–€100
	Monnaie électronique	+€100
Créance sur la banque du consommateur €100	Monnaie électronique	€100

Tableau 2: Emission de monnaie électronique

Nous constatons déjà une différence avec le retrait de monnaie fiduciaire. Alors que dans le cas d'un retrait auprès d'un distributeur de billet, la banque voit à la fois son actif et son passif décroître, lors de l'émission de monnaie électronique, il y a simplement substitution de dépôts.

L'émission de monnaie électronique par une banque privée est en fait assimilable à l'émission de billets par les banques centrales. Dans le cas de billets de banques, la banque centrale débite le compte de dépôt de la banque privée qui désire s'approvisionner en billets et crédite le compte du passif monnaie fiduciaire.

Notons encore que rien n'empêche l'émetteur de payer des intérêts sur le dépôt de monnaie électronique.

Lors du paiement par monnaie électronique, un certain montant de valeur monétaire est transféré de l'acheteur vers l'agent receveur de monnaie électronique (le commerçant).

Si nous sommes dans un système de circulation ouvert, le commerçant peut à son tour utiliser la monnaie électronique reçue pour faire des paiements. Dans ce cas, ni la banque du commerçant, ni l'émetteur n'enregistrent de nouvelles écritures comptables. Tout se passe comme si le commerçant avait reçu des billets de banques de l'acheteur, billets qu'il utilise à son tour pour faire des paiements en liquide.

actif — *Banque du commerçant* — *passif*

Créance sur l'agent de liquidation	+€100	Dépôt du commerçant	+€100

actif — *Émetteur* — *passif*

		Monnaie électronique	–€100
		Dette envers l'agent de liquidation	+€100
Créance sur la banque du consommateur	€100	Dette envers l'agent de liquidation	€100

actif — *Agent de liquidation* — *passif*

Créance sur l'émetteur	+€100	Dette sur la banque du commerçant	+€100

Tableau 3: Liquidation du paiement

En présence d'un système de circulation fermé, la monnaie électronique est détruite après chaque paiement. En fin de journée, le commerçant transfère la monnaie électronique reçue, sous forme de code binaire, vers l'opérateur du système qui initie la liquidation du paiement.

- Traitement statistique

La question qui se pose d'un point de vue statistique est de savoir comment classifier le poste *monnaie électronique* qui apparaît dans le bilan de l'émetteur.

Le Règlement BCE du 1er décembre 1998 sur le bilan consolidé des IFM, prévoit la classification de la monnaie électronique enregistrée sur les cartes prépayées dans la rubrique «comptes à vue». Nous savons cependant que les cartes prépayées ne sont qu'une forme de portemonnaie électronique, celui-ci pouvant aussi prendre la forme d'un logiciel. D'un point de vue économique, il importe en fait peu que les unités de monnaies électroniques soient sauvegardées sur des supports de type hardware ou sur des supports de type software.

Les caractéristiques de fonctionnement sont en fait plus importantes que la forme du portefeuille électronique. Trois caractéristiques méritent à cet égard plus d'attention :

1. Si le système fonctionne d'après un schéma fermé, c'est-à-dire si la monnaie électronique est remboursée par son émetteur après chaque transaction, le poste au passif du bilan de l'émetteur «monnaie électronique» a des caractéristiques semblables à un dépôt à vue. En effet, dans ce cas la monnaie électronique ne peut être utilisée qu'une seule fois, comme un dépôt. Au contraire, dans le cas d'un système ouvert, la monnaie électronique peut être utilisée à plusieurs reprises et présente alors des caractéristiques semblables aux billets de banques.

2. Si le détenteur peut être identifié, la monnaie électronique est plus proche du dépôt à vue que de la monnaie fiduciaire. Au contraire si l'identification n'est pas possible, la monnaie électronique présente des caractéristiques semblables aux billets de banques.

3. Enfin un troisième facteur qui entre en considération est le paiement ou non d'intérêts sur le poste *monnaie électronique*. Si des intérêts sont payés au détenteur de monnaie électronique, celle-ci présente des caractéristiques plus proches d'un dépôt à vue alors qu'elle se rapproche plus de la monnaie fiduciaire dans le cas contraire.

En théorie, ces trois caractéristiques peuvent être combinées de huit façons différentes. En pratique, il n'y a cependant que cinq combinaisons possibles car il n'est pas concevable d'avoir un système de circulation ouvert permettant l'identification des détenteurs de monnaie électronique ni le paiement d'intérêts.

d'autre part la banque voit ses positions de réserves auprès de la banque centrale augmenter, pouvant ainsi entraîner un accroissement des dépôts à vue.

La conversion de dépôts à vue en monnaie électronique peut également entraîner un accroissement des réserves

Monnaie électronique							
Système ouvert				Système fermé			
Pas d'identification		Identification		Pas d'identification		Identification	
Pas d'Intérêts	Intérêts	Pas d'Intérêts	Intérêts	Pas d'Intérêts	Intérêts	Pas d'Intérêts	Intérêts
Mondex				E-cash		Minicash, Proton	

Monnaie fiduciaire ⟷ Dépôts à vue

Tableau 4: Classification de systèmes de monnaie électronique

A ce stade, il est encore difficile de prévoir quel système le remportera dans le futur. L'évolution actuelle donne l'avantage aux systèmes de circulation fermés, où le détenteur est identifiable et qui ne paient pas d'intérêts.

Cependant, quel que soit le système qui le remportera, il semble en tout cas approprié d'inclure la monnaie électronique dans l'agrégat M1. En effet, la monnaie électronique possède des caractéristiques proches des instruments contenus dans M1, à savoir la monnaie fiduciaire en circulation et les dépôts à vue.

2.1.4.2 Effets de l'émission de monnaie électronique sur les agrégats de monnaie

Nous avons vu que la monnaie électronique (EM) a des caractéristiques très semblables aux instruments contenus dans l'agrégat M1, de sorte qu'il semble raisonnable de l'y inclure. A priori, ce serait donc M1 qui serait avant tout touché par une substitution de monnaie fiduciaire (C) ou de dépôts à vue (D) par la monnaie électronique.

Nous distinguerons la conversion de monnaie fiduciaire en monnaie électronique de la conversion de dépôts à vue en monnaie électronique.

La conversion de monnaie fiduciaire en monnaie électronique affecte M1 de deux manières. D'une part, il y a une diminution au nombre de billets en circulation et excédentaires, notamment si la monnaie électronique n'est pas soumise à des réserves obligatoires. Dans ce cas une augmentation de M1 est également probable.

L'effet d'une conversion de monnaie fiduciaire ou de dépôts à vue en monnaie électronique dépend de l'existence de réserves obligatoires. Dans la zone euro, les banques doivent déposer 2% d'une partie de leurs dépôts et des titres émis auprès de leur banque centrale nationale. Nous allons cependant aussi étudier l'impact d'une conversion dans le cas où il n'y a pas de réserves obligatoires.

Nous partons de l'hypothèse que les dettes résultant de l'émission de monnaie électronique au passif du bilan des banques émettrices sont incluses dans la définition de M1.

(1) $M1 = C + D + EM$

Rappelons que les réserves des banques (R) sont constituées:

1. De la monnaie fiduciaire qu'elles détiennent dans leurs coffres (VC);
2. Des réserves obligatoires auprès de la banque centrale (RR);
3. Des réserves excédentaires auprès de la banque centrale (ER).

Notons que les réserves obligatoires sont rémunérées au taux des opérations principales de refinancement fixé par la BCE et que les réserves excédentaires ne sont pas rémunérées. Les banques détiennent, malgré tout des réserves excédentaires car celles-ci peuvent servir à la liquidation des paiements interbancaires.

Le montant de réserves excédentaires détenues par les banques de la zone euro est cependant très faible. Ceci s'explique probablement par le fait que les montants déposés auprès des banques centrales nationales, en tant que réserves obligatoires, peuvent être librement utilisés par les banques durant la journée. De plus, les banques doivent respecter l'exigence de réserve en moyenne sur toute la période de maintenance. Les banques disposent donc de beaucoup de flexibilité pour gérer leurs réserves obligatoires.

- Conversion de monnaie fiduciaire en monnaie électronique

La conversion d'une unité de monnaie fiduciaire en monnaie électronique induit une diminution de la monnaie fiduciaire en circulation et un accroissement de même valeur de la monnaie fiduciaire dans les coffres du système bancaire. La banque, qui reçoit cette unité de monnaie fiduciaire, l'échangera probablement à son tour auprès de la banque centrale. En effet, le taux de rendement des billets de banque est nul alors que les réserves excédentaires déposées auprès de la banque centrale peuvent servir en cas de liquidation de paiements interbancaires. Si la banque décide néanmoins de ne pas retourner les billets à la banque centrale, l'effet d'une conversion de monnaie électronique en monnaie fiduciaire n'aura pas d'effet sur M1. En effet dans ce cas l'émetteur détient 100% des réserves en liquide en contrepartie de la monnaie électronique émise. En d'autres termes, la diminution de C sera exactement compensée par l'accroissement de EM.

Le ratio des réserves excédentaires par rapport aux dépôts (monnaie électronique incluse) est corrélé positivement avec le taux de remboursement attendu de ces dépôts et est inférieur à un. Il en suit que, si le taux de retrait attendu des dépôts reste constant, la banque voudra augmenter ses réserves excédentaires d'un montant moindre que l'augmentation des dépôts. Le système bancaire connaît donc un excès de réserves qui se traduit par une baisse du taux d'intérêt interbancaire.

La diminution du taux d'intérêt interbancaire implique une diminution du coût des dépôts. En effet, en cas de retraits de dépôts, il devient moins cher de devoir emprunter. Il en suit que les banques augmentent le montant de leurs prêts ainsi que celui des dépôts. M1 augmente en conséquence, étant donné que la diminution de la monnaie en circulation est compensée par une augmentation de même ampleur de la monnaie électronique émise, et de plus les dépôts augmentent.

Concrètement, voyons ce qui se passe lorsque les banques sont tenues de déposer 2% de leurs dépôts à vue auprès de la banque centrale. Si la monnaie électronique n'est pas soumise à une exigence de réserve, la position de réserves excédentaires augmente du montant de la monnaie électronique émise. Si une exigence de réserve s'y applique, disons 2%, les réserves excédentaires correspondent à 98% du montant de monnaie électronique émise. Supposons que le client échange €1 de monnaie fiduciaire contre €1 de monnaie électronique et que la banque ne désire pas détenir de réserves excédentaires. Si le taux des réserves applicable à la monnaie électronique est égal à zéro, le système bancaire peut alors augmenter le volume des dépôts de €50. Si par contre le taux de réserve est égal à 2%, elle peut l'augmenter de €49.

- Conversion de dépôts à vue en monnaie électronique

Si l'émission de monnaie électronique se fait par contre via débit d'un dépôt à vue, la banque n'enregistre pas de variation de ses réserves. Tout dépend alors du fait que la monnaie électronique soit soumise ou non à une exigence de réserve.

Si le taux des réserves applicable à la monnaie électronique est inférieur au taux des réserves des dépôts à vue, la banque aura un excès de réserve qu'elle utilisera pour octroyer davantage de crédits. En conséquence M1 augmentera. A taux de réserves égaux, l'effet sur M1 sera neutre. Si le taux des réserves applicable à la monnaie électronique est supérieur au taux des réserves des dépôts à vue, la banque aura un manque de réserves obligatoires conduisant à une diminution des dépôts et donc de M1.

Notons encore que la conversion de dépôts à vue en monnaie électronique peut avoir un impact indirect sur la demande de monnaie fiduciaire, car il se peut que l'utilisateur se serve de la monnaie électronique pour effectuer dorénavant des achats sur internet alors qu'auparavant il achetait directement chez le commerçant en le réglant en liquide. Ainsi, il y aura une dimi-

nution du montant de monnaie fiduciaire en circulation. Par contre, si la monnaie électronique émise se substitue principalement à d'autres moyens de paiement électronique, comme les cartes de débit ou de crédit, il n'y aura pas d'impact sur la monnaie fiduciaire en circulation.

Il importe, à ce sujet, de faire la distinction entre une conversion de monnaie fiduciaire et/ou de dépôts à vue en monnaie électronique, et la substitution de monnaie électronique à la monnaie fiduciaire et/ou à des dépôts à vue. En effet, la monnaie électronique qui a été émise par débit d'un compte de dépôts à vue, peut être utilisée en vue de se substituer à des dépôts à vue ou à de la monnaie fiduciaire. Dans le premier cas, la monnaie électronique est utilisée en remplacement d'autres moyens de paiement électronique, alors que, dans le deuxième cas, l'émission de monnaie électronique se fait au détriment de la monnaie fiduciaire prélevée auprès d'un GAB.

- Effet sur le multiplicateur monétaire

Afin d'étudier plus en détail les effets d'une émission de monnaie électronique sur M1, nous allons partir d'un modèle de création de monnaie basé sur un multiplicateur de monnaie.

La banque centrale peut influencer l'offre de monnaie à travers la base monétaire MB *(monetary base ou high powered money)*:

(2) $M1 = m \cdot MB$

La variable m est le multiplicateur monétaire qui permet de mesurer l'effet d'un changement de la base monétaire sur M1.

La base monétaire correspond aux réserves des banques ainsi qu'à la monnaie en circulation :

(3) $MB = RR + ER + C$

où:

(4) $RR = r_D \cdot D + r_{EM} \cdot EM$

Les variables r_D et r_{EM} correspondent aux taux de l'exigence de réserves sur les dépôts et la monnaie électronique en circulation.

De (1), (2) et (3) il suit:

(5) $$m = \frac{C + D + EM}{RR + ER + C}$$

En supposant que les réserves excédentaires sont égales à zéro, cette égalité peut encore s'écrire de la façon suivante :

(6) $$m = \frac{c + e + 1}{r_D + r_{EM} \cdot e + c}$$

où c et e correspondent aux ratios C/D et EM/D.

Si e = 0, le multiplicateur s'écrit comme suit :

(7) $$m' = \frac{c' + 1}{r_D + c'}$$

où c' est égal au ratio C'/D', C' étant le montant de monnaie fiduciaire en circulation et D' le montant des dépôts à vue si EM = 0.

L'acquéreur de monnaie électronique la considère soit comme substitut à la monnaie fiduciaire soit comme substitut à un dépôt à vue. Si α correspond à la proportion de monnaie électronique émise en remplacement de la monnaie fiduciaire, l'équation suivante se vérifie :

(8) $$c' = \frac{C + \alpha \cdot EM}{D + (1 - \alpha) \cdot EM}$$

avec $0 \leq \alpha \leq 1$.

En d'autres termes, $\alpha \cdot$ EM correspond au montant des paiements effectués à l'aide de monnaie électronique qui auparavant était réglé en liquide. $(1 - \alpha) \cdot$ EM correspond au montant des paiements auparavant réglé via d'autres moyens de paiement électronique.

Notons qu'il est néanmoins possible que c' soit légèrement supérieur à ce ratio, étant donné que les coûts, résultant du retrait de monnaie électronique, sont inférieurs aux coûts de retrait de monnaie fiduciaire. Il se peut dès lors que les utilisateurs choisissent d'augmenter la fréquence de chargement des cartes tout en diminuant les montants chargés.

Remarquons à ce sujet qu'il existe une tendance générale à la baisse de C/D. Hormis des causes conjoncturelles, cette évolution peut aussi être attribuée à l'utilisation croissante de moyens de paiements non liquides, tels que les cartes de débit ou de crédit.

En remplaçant (8) dans (7), nous obtenons l'équation suivante :

(9) $$m' = \frac{C + D + EM}{r_D \cdot D + (r_D - \alpha \cdot r_D + \alpha) \cdot EM + C}$$

De (5) et (9) il vient :

$$(10)\quad \frac{m}{m'} = \frac{r_D \cdot D + (r_D - \alpha \cdot r_D + \alpha) \cdot EM + C}{r_D \cdot D + r_{EM} \cdot EM + C}$$

Ce qui peut encore s'écrire comme suit :

$$(11)\quad \frac{m}{m'} = \frac{r_D \cdot D' + C'}{EM \cdot [r_{EM} - r_D\,(1-\alpha) - \alpha] + r_D \cdot D' + C'}$$

Nous voyons que l'impact de l'émission de monnaie électronique sur le multiplicateur monétaire dépend de deux facteurs: d'une part du taux de l'exigence de réserve sur la monnaie électronique et d'autre part du ratio de substitution de la monnaie fiduciaire en monnaie électronique.

	$\alpha = 0$	$0 < \alpha < 1$	$\alpha = 1$
$m = m'$	$r_D = r_{EM}$	$r_{EM} = \alpha + (1-\alpha)\, r_D$	$r_{EM} = 1$
$m > m'$	$r_D > r_{EM}$	$r_{EM} < \alpha + (1-\alpha)\, r_D$	$r_{EM} < 1$
$m < m'$	$r_D < r_{EM}$	$r_{EM} > \alpha + (1-\alpha)\, r_D$	$r_{EM} > 1$

Tableau 5: Effet sur le multiplicateur monétaire

Ainsi si $r_{EM} = r_D = 2\%$ et $\alpha = 1$, c'est-à-dire la monnaie électronique émise sert exclusivement de substitut à la monnaie fiduciaire, le multiplicateur monétaire augmentera.

2.1.5 Conclusion

Comme nous pouvons le voir dans le tableau 5 ci-dessus, le développement de la monnaie électronique a, dans la plupart des cas, un effet expansionniste sur les agrégats monétaires. Il en résulte que les banques centrales doivent surveiller de près son évolution et le cas échéant prendre les mesures qui s'imposent pour contrôler l'accroissement de la masse monétaire.

La situation actuelle n'est cependant pas alarmante sur le plan de la politique monétaire. En effet, les montants de monnaie électronique en circulation dans la zone euro sont faibles comparés aux montants des agrégats monétaires: en juin 2000, la monnaie électronique représentait moins de 0,01% de la somme de la monnaie fiduciaire en circulation et des dépôts à vue.

Il en est de même au Luxembourg où le succès de Minicash reste tout compte fait encore assez relatif. Ainsi, même si le montant de monnaie électronique en circulation a augmenté de près de 40% durant l'année 2000, il ne s'élevait en décembre 2000 qu'à €1,4 million ou encore environ €3 par habitant.

Du fait des conséquences que pourrait avoir le développement de la monnaie électronique sur les agrégats monétaires, les banques centrales ont néanmoins intérêt à surveiller de près son évolution, d'autant plus que cette évolution pourrait être exponentielle.

2.2 The European contribution to international financial stability

by Richard Portes, Professor at the London Business School and Director of the Centre for Economic Policy Research (CEPR) at the occasion of the Inauguration of the Banque centrale du Luxembourg on 18 May 2001

I shall first set out the background or context in which I believe we must set any discussion of international financial stability today. This starts from globalisation itself, which has been the setting and perhaps the cause of recent serious international financial disturbances. These gave rise to the debate on the 'international financial architecture', which has included both financial stability issues and discussion of exchange-rate regimes. The debate has brought some important innovations but has in many respects been inconclusive. That is partly because today there are many voices that must be heard and accommodated – in contrast to the process that gave us the Bretton Woods agreement, where the dominance of the US in the postwar settlement was complete.

I then turn to the current threats to international financial stability. There have always been financial crises, and in a capitalist system there always will be (Portes, 1999). I shall briefly discuss their sources and the possible ramifications of instability.

We can then consider the role of the euro zone and EMU in this international environment. To paraphrase the blunt remark of the IMF's chief economist and extend its domain, 'Will Europe be part of the problem or part of the solution?'

2.2.1 The context: globalisation

The European Commission has recently asserted that 'EMU has intensified the forces for change in the EU financial system by fostering globalisation' (European Commission, 2001). One could just as well put the converse proposition: globalisation has had a profound impact on the financial systems of individual EU countries and the operation of the monetary union. But this holds for all countries.

Here we stress only one dimension of globalisation, the mobility of capital internationally. Capital flows and national net foreign asset positions have finally reached levels last seen in the previous era of globalisation, 1870-1913. The overall 'U-shape' of the evolution of capital mobility since 1870 is well documented (*e.g.,* see Obstfeld and Taylor, 2001), and we now have fairly comprehensive data on stocks as well as flows for the past three decades (Lane and Milesi-Ferretti, 1999). The data show also that interest rates and equity market returns are increasingly closely linked across countries.

For major countries, nowhere are these links closer than among the members of EMU (*e.g.,* see Danthine, *et al.,* 2000). Government bond spreads are small, reflecting the absence of currency risk, little variation in credit ratings, and some variation in market liquidity across countries. There is a single benchmark corporate bond yield curve. Analysts of equity markets are increasingly moving to a sectoral rather than a country perspective, as the country risk component in equity returns declines.

All this, and EMU itself, are the inevitable consequence of the decision made originally in the Single European Act to abolish all restrictions on capital movements in Europe. Member states were faced with the 'trilemma' or 'inconsistent trinity' of free capital mobility, fixed exchange rates, and independent monetary policies. Their initial decision to privilege capital mobility then led to the choice between exchange-rate stability and monetary autonomy, which was resolved at Maastricht in favour of the former. Moreover, at Maastricht too, the decision to enshrine price stability as the objective of monetary policy created a presumption (though not a formal bar) against any move to stabilize the exchange rate of the European single currency with respect to the dollar and yen. Proposals for any form of 'target zones' are not on the serious policy agenda.

The priority of free movement of capital is indeed reflected in the evolution of the international financial system since 1970. The pressures generated and transmitted by capital movements broke up the Bretton Woods exchange-rate system. The failure of the negotiations of the early 1970s to restore an institutional framework for exchange-rate stability showed clearly the choice of the major countries, especially the United States, when confronted by the trilemma. The Europeans then went their own way, and the exchange-rate mechanism of the EMS was supported by remaining restrictions on the free movement of capital – but not for very long.

The only significant reaction against this central element of globalisation came in the wake of the Asian financial crisis. Serious discussion of the costs as well as the benefits of capital mobility had begun after the Mexican crisis (*e.g.* Kenen, *et al.,* 1996), but it was paralleled by a movement to incorporate a commitment to capital account liberalization in the IMF

Articles of Agreement. This was abandoned in the autumn of 1997, as official circles discovered the virtues of appropriate sequencing of liberalization (and possibly even 'market-friendly' controls on inflows following the Chilean example).

The trilemma, however, is only the economic framework for policy choices made under the impact of the mainly exogenous drivers of change in the international financial system. In the light of recent developments, there is fierce controversy over whether the extraordinary progress of the last fifteen years in Information and communications technology has generated a permanent increase in productivity growth. There can be no doubt, however, that the ICT revolution has favoured globalisation, especially capital mobility, and there is strong evidence that information plays a major role in international capital flows (Portes and Rey, 1999, 2001).

More narrowly, developments in 'financial technology' have also been important. To be sure, derivatives and forward markets existed before 1914. But the remarkable sophistication of new financial instruments and today's financial markets has clearly favoured portfolio diversification at the international as well as the national level. The well-known 'home bias' of investors has not disappeared – information asymmetries play a role here – but it is declining.

Market participants themselves have been an independent force for globalisation. The major investment banks have been important carriers of the new financial technology, and the notable extension of their own global reach is an independent force promoting the globalisation of capital markets – in cross-border M&A, bank lending, and the financing of foreign direct investment. The growth of large multinational enterprises and the globalisation of their production and marketing strategies has underpinned the strong expansion of foreign direct investment we have observed since the early 1990s. The increasingly global perspective of the major investment institutions (mutual funds, pension funds, insurance companies) has contributed to bringing cross-border equity flows close to the level of cross-border transactions in bonds.

A new literature demonstrates the significance of the legal and institutional environment for capital markets (see *e.g.* La Porta, *et al.,* 1997). Despite the failings spotlighted by the Asian crisis, there have in fact been fairly continuous improvements in emerging market as well as OECD countries in areas such as accounting standards, bankruptcy codes, and the like. These are fundamental in the institutional basis for globalisation.

Finally, the international institutions themselves have helped to develop the rules for capital markets. The IMF and the BIS have been particularly important in this respect. The Fund has also served more directly as a guarantor underpinning stability. For this purpose, it need not – and cannot, in my view – be the international lender of last resort. But both investors and governments are conscious of its presence and its capacity to intervene when problems arise. This undoubtedly creates moral hazard. That is a force for instability – but nevertheless a stimulus to capital flows and globalisation itself, whatever the consequences.

2.2.2 International financial stability

Governments and market participants must see great benefits in capital mobility, because the past three decades have brought many examples of its costs. The debt crisis of the 1980s and the Asian crisis of the 1990s are the two most prominent cases at the international level, but there have been a large number of national financial crises as well, in most of which volatile capital flows have been an important factor (Bordo, *et al.,* 2001). Especially for the emerging market countries, coping with international capital mobility has often been very difficult (Portes and Vines, 1997). So we have seen twin or even triple crises, involving exchange-market disturbances, threats to banking systems, and sometimes sovereign debt default (see Eichengreen and Portes, 1987, on the interconnections between these three crisis areas). These crises have been accompanied by some contagion and even apparent systemic threats, notably in 1982-83 when the major money market banks were heavily exposed to countries on the brink of default, and in autumn 1998, under the impact of the Russian default and the failure of LTCM.

The Mexican crisis of 1994-95 brought the G10 countries to study seriously possible changes in the international financial architecture, focusing on responses to sovereign liquidity crises. This first stage of the architecture debate was inconclusive, but efforts were relaunched and broadened after the Asian crisis erupted. The outcome, however, has in my view been very disappointing. It has been limited primarily to a move to implement 'standards' across a wide range of areas, from data dissemination to accounting regulations.

This will undoubtedly improve the framework for capital flows as well as domestic financial stability, and it may thereby help somewhat to limit the frequency and intensity of financial crises. But I have no doubt that crises will indeed recur. And the architecture debate has made little practical contribution to how they will be resolved. For example, it is hard to see any significant differences in IMF policies towards Argentina and Turkey since 1999 and how these cases would have been handled pre-1996 – neither in the approach to exchange-rate policies, nor in bailout packages, their conditionality, and private sector involvement.

Indeed, the focus on standards underscores the emphasis of policies on making the world safe for capital movements. It has been argued that major changes in international financial system come only when countries are convinced that they are necessary to safeguard *world trade* (Eichengreen and James, 2001). In that light, the discussions and policy responses of the last few years may suggest that policy-makers see no clear and present danger to trade from international financial instability. Capital market participants have opposed any major changes in crisis resolution (Portes, 2000), and governments have not wished to impose such changes. So practical measures have been confined to standards, with which market participants are generally more than happy.

National and international exchange-rate regimes also affect financial stability, and national policies have international consequences. There have been very wide exchange-rate swings among the major currencies in the period of floating rates, but countries have accepted this within the constraints of the trilemma. The Asian crisis has stimulated extensive debate on the viability of exchange-rate pegs – more broadly, of managed floats – and the desirability for emerging-market countries of going to one of the extremes of clean floating or dollarisation (*e.g.,* Frankel 1999, Fischer 2001). The debate is still very open, especially in light of evidence that most countries exhibit a 'fear of floating' (Calvo and Reinhart, 2000).

But if an exchange-rate peg does not provide a nominal anchor and basis for monetary stability, what is the alternative? Increasingly, countries have chosen to give more autonomy to national central banks in the framework of inflation targeting. Having thereby delegated responsibility for monetary stability, governments turn to fiscal consolidation, where some notable results have been achieved. EMU is of course a prime example of this trend. And although 'putting your own house in order' is certainly not a guarantee of international financial stability, there can be no doubt that domestic stabilization has positive international spillover effects.

Finally, any consideration of the international financial environment must recognise the consequences of the growing number of serious 'players' in the system and in writing its rules. The United States still exhibits some of the hegemonic power it exerted with little hindrance in the period 1945-1970, no more so than in the policies of the IMF and international responses to recent financial crises. But the EU – in particular, the euro area and its members in the G-7 – as well as Japan do play major roles, and the major emerging market countries are unwilling to be ignored. This inevitably complicates the process of reaching agreement on any major initiatives.

2.2.3 Threats to international financial stability

Globalisation and free movement of capital provide the framework. International financial crises and the architecture debate, wide exchange-rate swings and prolonged misalignments are evidence that the framework is not always adequate. The trend towards monetary stability at the national level is encouraging, but multipolarity in the international system makes it harder to arrive at consensus. In this context, I turn to current threats to international financial stability.

Recent experience provides convincing examples of our inability to foresee at least some crises, and I have little confidence in any of the proposed systems of 'early warning indicators'. But it does not take any sophisticated econometric modelling to see two significant sources of potential problems: further instability in Argentina, Turkey or both; and the unsustainable US international situation, which combines strongly negative current account and net foreign asset positions (exceptionally high by absolute and historical standards) with an overvalued currency.

We all hope that the latest IMF packages for Argentina and Turkey, together with determined and effective policy actions by those countries, will bring stability and growth. But we cannot ignore the risk that Argentina's currency board will ultimately prove an unacceptable straitjacket or will bring deep domestic financial distress and a serious breakdown in the real economy, ending in sovereign default. Nor can we exclude the possibility that the Turkish political system will fail the test set for it by the IMF and the new

Turkish economy minister, in a country where hyper-inflation has long seemed just around the corner. In either case, there could be significant contagion effects, and there are certainly other major emerging market countries with continuing or nascent economic and financial instability.

The risk of a 'hard landing' for the US internationally is not trivial, whatever the Fed may do to limit the danger of a deep recession. If the financial markets were to impose an abrupt correction of the current account deficit, this could require a dollar depreciation on the order of 40%; even a slower correction of the deficit would probably require depreciation in the range of 15-25% (Obstfeld and Rogoff, 2001). And we cannot be certain that monetary relaxation and tax cuts will forestall a serious US recession, with wide international ramifications; nor that the monetary relaxation will not rekindle inflation.

There is therefore no lack of potentially serious short-run dangers. I would add two longer-run phenomena that might merit concern. First, there is some evidence that the move to open capital markets has had different consequences in the current period than in 1870-1913. In the previous era of globalisation, the major capital exporting countries built up very large gross asset holdings in the emerging market countries of that time, with little offsetting international liabilities. Today, the net foreign asset positions of the major countries are much smaller than their gross assets and liabilities – that is, much of the lending appears to be more in the nature of portfolio diversification than development finance (Obstfeld and Taylor, 2001). One aspect of this has been the huge capital inflow during recent years into the capital-rich United States. Possibly because the capital-poor countries are unattractive to investors or unable to absorb major inflows productively. Capital mobility in the presence of domestic market imperfections in the capital-poor countries may lead to a significant misallocation of capital in the world economy. That is not an immediate danger to financial stability, but the long-run implications are worrying.

Second, the competition among potential recipients of capital flows can involve regulatory competition and a 'race to the bottom', which could indeed be destabilising. The Financial Stability Forum seeks to avoid this, and the wider push for standards is a countervailing force too. But there is evidently not a consensus on what is a 'tax haven' or what is 'undesirable tax competition', nor on disclosure standards, on protection of minority shareholder rights, and many other dimensions of possible regulatory competition.

2.2.4 The role of the euro area and EMU

The good news is that EMU has brought internal stability: a stability-oriented monetary policy and substantial convergence on non-inflationary growth. We can have reasonable confidence that these conditions will be maintained even in the more difficult international circumstances of the current period.

There has also been substantial progress towards a single financial area, although the slow progress of the Financial Services Action Plan and resistance to the Lamfalussy Committee's proposals shows that there are still very significant obstacles. And their effects are evident in the lack of development of cross-border markets for insurance and pensions, the slow pace of rationalisation of clearing and settlement in securities markets, the frustrations of firms dealing with many regulators, and so forth. The EU has its own 'standards problems': in corporate governance (takeover codes, the protection of minority shareholder rights), lack of harmonisation of accounting and auditing standards, problems of insider information. Nevertheless, the explosive development of euro-denominated corporate securities markets and markets for asset-backed securities, as well as of private equity finance, are evidence of the effects of the single currency in deepening and broadening Europe's capital markets.

The bad news is that the floating euro floated down on the foreign exchanges from the beginning, and we have seen a depreciation of more than 25% against the dollar. This is perhaps not as extreme a misalignment as in 1984-85, but the US current account deficit is even greater now than it was then, and its net foreign asset position has switched from positive to significantly negative. Exporters in the euro area are not unhappy. There is clearly disquiet in the general public, however, with scepticism about the new currency which may interact dangerously with the inevitable problems of the changeover to euro notes and coins.

Put your own house in order

With this background, how can Europe and in particular the euro area contribute to international financial stability? Although I have expressed some doubt about the adequacy of 'put your own house in order' as a guide to policy, it is certainly the right place to start.

This is right if only from self-interest, because the euro area is significantly vulnerable to the two major short-run threats, emerging-market crises and a hard landing for the dollar. Both could threaten internal financial stability in the euro area, which could then have major international spillover effects. It is important to develop safeguards before crises occur.

The banks of the major euro area countries are heavily exposed in Turkey and in Latin America.

Consolidated international claims of reporting banks on individual countries

($ bn, by nationality of reporting banks, end-December 2000, BIS data)

Claims on	*France*	*Germany*	*Netherlands*	*Spain*
Turkey	4.5	13.1	3.1	0.7
Latin America	19.8	36.0	15.2	51.5
Of which Argentina	3.1	8.4	3.3	19.0

It is clear why Germany did not hesitate in the case of Turkey to disregard its normal policy of opposition to large IMF bailout packages!

Turning to the dollar, Goldman Sachs are currently forecasting an exchange rate for the euro of $1.22 one year from now – an appreciation of 40%. However desirable one might think an appreciation of the euro, a move of this magnitude could be highly destabilising. The recessionary forces and balance sheet movements it would generate could provoke financial distress as well.

The euro area financial system has not yet been tested by such events. There has been much discussion of its ability to deal with financial shocks (for example, Begg, *et al.,* 1998; Padoa Schioppa, 1999; Prati and Schinasi, 1999; Favero, *et al.,* 2000; European Commission, 2000). But it remains the case that EMU has created a single monetary authority with decentralized financial supervision and regulation; no clear locus of lender of last resort authority to deal with illiquidity; and no unified fiscal authority to underpin responses to insolvency. Nor is there any clear, unified locus of concern and policy-making in regard to exchange-rate policy and the issues of the international financial architecture. Although these difficulties need not be fatal, it is important to consider what further might be done to mitigate them.

Monetary union has most likely exacerbated the dangers of systemic risk-generalized financial distress. Globalisation and deregulation have deepened the channels of contagion. It is true that cross-border M&A activity in euro-area banking is still limited, but it will probably take off after the wave of domestic consolidation has peaked. Meanwhile, the most extensive cross-border relationships are in the interbank market. These data are not entirely interbank, but they suggest the order of magnitude of the interbank exposures.

Consolidated claims of reporting euro-area banks on each other (aggregated)

($ bn, by nationality of reporting banks, end-December 2000, BIS data)

Claims by banks of	*On banks in these 10 countries*
Austria	37.1
Belgium	135.7
Finland	7.1
France	210.6
Germany	442.0
Ireland	10.8
Italy	80.0
Netherlands	121.4
Portugal	9.6
Spain	55.0

There are other sources of systemic risk that EMU has magnified (mostly foreseen by McCauley and White, 1997). Absent the tool of monetary policy at the national level, there is increased macroeconomic risk at that level. Competition in the banking sector and disintermediation, both of which have been stimulated by the development of the euro area financial markets, have put banks under pressure. This induces greater risk-taking, although the securitisation of bank assets at the same time gives them more liquidity (while increasing their exposure to market risk). And the mergers and consolidations within countries have created more institutions that are too big to fail. Finally, the movement towards conglomeration (integrating banking, securities and insurance activities in a single institution) complicates the tasks of supervision and regulation.

The ECB [2001] has recently argued forcefully for *'the preservation of a fundamental role for NCBs in prudential supervision in euro area countries' italics in original*. But many countries, from Luxembourg inside the euro area to the UK outside it, separate banking supervision from the central bank. So there is no strong presumption that financial supervision and regulation, if they were taken from the national level and centralized for the euro area, should be located in the ECB. Nor is

it clear that centralization of these activities would be desirable, as a part of the ECB or as its free-standing counterpart. There are extensive existing coordination structures for the exchange of information among national supervisors (European Commission, 2000): in particular, the Banking Supervision Committee and the Groupe de Contact, while dozens of Memoranda of Understanding have been set out in bilateral relationships. And in any case, centralization at the euro area level is politically not on, as the Lamfalussy Committee recognized when it ruled out an EU-wide analogue to the US Securities and Exchange Commission.

Nevertheless, it is questionable whether there are appropriate *incentives* and *structures*, as well as *exante* agreed *procedures*, to govern intervention in *crisis* circumstances. One cannot easily call a meeting in the middle of a business day of a committee covering several countries and expect it to resolve the issue by the opening of the markets on the next day, unless the members need not actually convene because they have already worked out how to respond to various contingencies. We have no reason to believe that the authorities have reached this point.

This is the first area in which action is needed. This does not mean, however, that the authorities should spell out (say) the precise conditions under which they would expect to extend lender of last resort facilities to a troubled institution. It does mean that they should decide in advance how that decision would be made and implemented, as well as how its costs would be shared. One cannot help but think that a 'small' crisis – the failure of a medium-size bank with substantial cross-border activities - could have a salutary effect in concentrating minds on the particular problems of crisis response in real time, without resulting in serious systemic consequences. But no one will wish to engineer even a 'small' crisis, nor is it clear precisely what is the optimal size! I have to confess to concern that the authorities are not ready for the challenge of even a medium-size event of this nature. History shows that they do and will occur, often in unexpected forms, and neither history nor the body politic is kind to those who mismanage them.

There is an alternative, and complementary, mode of action which should meet fewer political obstacles than trying to centralize supervision and regulation. That is to improve the information and incentives to act in a *decentralized* mode (see Favero, *et al.*, 2000). This is congenial to a more flexible regulatory environment as well as consistent with the broad move towards financial standards (the Financial Stability Forum, etc.). Prescribing more *disclosure* may seem interventionist, but in fact it is merely giving market participants the means with which to 'self-supervise'. For example, much attention has been devoted in the United States to proposals that banks be required to issue a minimum amount of subordinated debt, whose market price would be a sensitive indicator of the health of the institution (Calomiris). The European authorities should examine how this might be applied here.

The ECB has powers *to take* push the process of improving information and incentives substantially further on its own initiative. It could, for example, require disclosure of balance sheet information and exposure in the interbank market. In a more prescriptive fashion, it could take measures to reduce the size of uncollateralised interbank exposures. And it could propose uniform procedures for 'prompt corrective action' and (ultimately) orderly closure when the capitalisation of a bank weakens. Often regulatory forbearance (perhaps arising from regulatory capture) inhibits such moves and induces the sort of 'gambling for resurrection' that was so disastrous in the US savings and loan institutions debacle.

There are other aspects of putting the house in order that would contribute to international financial stability. There is a wide range of advances that could be made in applying better standards across the euro area, indeed for the EU as a whole, and many of these figure in the Financial Services Action Plan. In many of these instances, harmonisation is preferable to the least common denominator of mutual recognition and avoids any temptation to join the race to the bottom. Often private-sector firms and market participants prefer that too – for example, European firms choosing to cross-list their shares tend to go to exchanges that apply tougher standards for accounting and disclosure, because that will be a good signal to investors (Pagano, *et al.,* 2001). A quite different but equally important policy area that affects financial stability is pensions. The political difficulties are obvious, but fiscal consolidation requires ambitious reforms.

EU enlargement and international financial stability

Looking outside the current borders of the European Union, we see first our neighbours to the East. Here there are two areas where policy could significantly improve the prospects for international financial stabil-

ity. First, enlargement of the EU will ultimately result in further countries coming into EMU. When they do, the Council of the European Central Bank will grow further beyond its already unwieldy size. It is essential to reform the governance of the ECB so as to permit effective decision-making. Otherwise, euro area monetary policy-making will suffer. Moreover, neither market participants nor other countries will be able to interpret ECB decisions, whatever improvements are made to its communications policies. This was recognised at the Nice European Council, and a discussion has begun; a detailed analysis of the problem and alternative solutions is given by Baldwin, *et al.* (2001).

Second, exchange-rate policy for the accession countries raises important unresolved issues. Under current rules, new entrants will have to go into the Exchange Rate Mechanism for two years prior to entry into EMU. The difficulties of applying an exchange-rate band regime for countries undergoing rapid structural change and productivity growth are widely recognised (Begg, *et al.*, 1999). It would hardly contribute to international financial stability if a new entrant were forced to exit from the ERM! Policy-makers should focus more closely on this problem.

One approach to this problem would be euroisation. Although it might be appropriate for only a few countries, it should not be ruled out *a priori*, as the Ecofin suggested in November 2000. Using a stable currency issued by a monetary authority outside the country, whose domestic supply is limited to that earned through balance-of-payments surpluses, has potential advantages relative to a currency board or a pegged exchange-rate regime. Speculative attacks are no longer possible, so there is no currency risk, and domestic interest rates no longer incorporate that premium. There are typically lower transaction costs and greater transparency in policy. Using a stable foreign currency may itself implant a 'stability culture' in monetary affairs. There are clear costs as well: the loss of seignior age revenues that may be important to governments with limited tax-raising capacities; the absence of a lender of last resort; and the definitive renunciation of an 'escape clause' (an exit option), short of political cataclysm.

These benefits and costs must be weighed by the domestic political authorities. The Council (Ecofin) opinion of 7 November 2000 asserts that 'before finally adopting the euro', the candidate countries must fulfill the Maastricht criteria: 'any unilateral adoption of the single currency by means of "euroisation" would run counter to the underlying economic reasoning of EMU in the Treaty... [it] would not be a way to circumvent the stages foreseen by the Treaty for the adoption of the euro.' The DG ECFIN paper for Ecofin on 'Exchange Rate Strategies for EU Candidate Countries' (22 August 2000) was even more extreme. It claims that the 'sequencing entrenched in the Treaty for the adoption of the euro' would bealtered, the 'principle of equal treatment betweenpresent and future as among future member states will be violated', that 'negotiating' euroisation would alter the *acquis communautaire*, etc.

It is true that once a country enters the EU, its exchange-rate policies become legally a matter of common concern. But not before. And *using* the euro in no way prejudices or impinges on the accession process or the subsequent process of entering into Monetary Union. It cannot run counter to any legal provision of the Treaties. *Using* the euro is *not* equivalent to participating in EMU, nor 'unfairly' getting a 'head start', nor does it implicate the ECB in any significant way. Unilateral euroisation cannot affect the credibility of the euro, since the euroising country cannot participate in the economic institutions of EMU, and it would certainly be made totally clear at the outset that the ECB would not respond to any 'bailout' request.

Unilateral euroisation is not entry into the single currency (EMU). Suppose the CFA countries were to propose euroisation – on what grounds would we wish to forbid that, supposing that we could? Should we have stopped DM-isation in Kosovo? If Turkey wished to deal with its long inflationary history and current financial crisis by euroising, why should we seek to impede that? What negative implications have Panama's long-standing use of the dollar or the recent dollarisation in Ecuador and El Salvador had for the US? In general, it is clear from the international debate on exchange-rate regimes that euroisation may be an appropriate option not just for some of the accession countries, but elsewhere too. That could promote international financial stability. Ecofin should reconsider their position on this issue, and possibly a reflective analysis by the ECB could show the way.

Europe and the euro in the international financial system

We now come to the broad international domain. Here there are three important issues: exchange-rate policy, the international financial architecture, and the international role of the euro. At a slight risk of oversimpli-

fication, I think it fair to characterise the positions of the EU and the euro area in all three areas as nonexistent. This is more than unfortunate. It is unwise.

I am not recommending target zones. Desirable or not, there is no appetite for formal target zones now or in the politically foreseeable future, either in the euro area (not just the ECB), or in the United States. France and Japan like to talk about it, and that can do no harm, especially if it softens attitudes toward foreign exchange market intervention, which is a separate issue.

In appropriate circumstances, intervention can help to maintain international financial stability. One need not have a formal target zone in mind to recognise that the current euro/dollar rate is a massive misalignment. The longer it persists, the more distortions it will generate in resource allocation – and, perhaps, the more violent will be the inevitable 'correction'.

The euro will appreciate. Policy-makers should seek to manage that process to limit the instability it might cause. But there is widespread belief that sterilised intervention – that is, purchasing euros in the markets without a corresponding tightening of monetary policy – would be ineffective. New research challenges this consensus and suggests that the impact could be substantial and sustained.

This new work focuses on the portfolio effects of intervention. To the extent that central bank orders mimic private trades, the portfolio effects of such trades can tell us something about how intervention would work. Martin Evans and Richard Lyons (2000) find that private buy orders in major foreign exchange markets have an immediate effect on exchange rates of about 1 percent per $2 bn. The analysis applies directly to unilateral, sterilized central bank intervention. If intervention strategy were timed appropriately, Evans and Lyons find that buy orders would have a *persistent* effect of about 1 percent per $3 bn. These results suggest that if the authorities want a sustained 10-percent appreciation of the euro, that would require selling about $30 bn of their foreign exchange reserves. This is small in relation to ESCB reserves, even to those under the direct control of the ECB. It has been argued that at least $75 bn of ESCB reserves are indeed 'excessive'. Using somewhat over half the 'excess' in a sustained policy of sterilised intervention to bring the euro back to dollar parity and reverse market psychology could be a good investment.

More generally, the euro area should behave more like a single monetary area in the international domain. It should indeed become Europe's *interlocuteur valable* on exchange-rate issues, in discussion with the US and Japan, and on the international financial architecture. That requires a much more cohesive policy from the Euro Group; more joint policy-making between it and the ECB; and unified, coherent external representation in the international institutions, particularly the IMF and G-7. It is past time to admit that the current messy compromises are inadequate.

Europe's limited influence on the architecture debate, which has clearly been dominated by the United States, is partly due to the inability to arrive at agreed European positions and to represent them effectively (Coeuré and Pisani-Ferry, 2000). For example, the Europeans have broadly favoured a more rule-based, less discretionary approach to private sector involvement in crisis resolution. The American preference for a case-by-case flexibility has so far prevailed – and even some German policy-makers may regret that their hands were not tied more tightly when it came to dealing with Turkey.

Looking to the future, the Europeans are noticeably cooler to the Meltzer Commission's proposed sweeping restrictions on the IMF than are many American members of Congress and officials in the Bush administration. If Europe cannot speak clearly on these issues, it may find serious difficulties ahead. The four top jobs in the IMF under the Managing Director must now be filled. Will Europe have a more cohesive approach to this important problem than it did when the MD post was under discussion? Taking responsibility for international financial stability covers a wide domain.

Indeed, that responsibility goes beyond the realm of statistics and economic analysis, beyond formal institutions, even beyond the law. I refer to the black economy, to the various international mafias, to drug barons and the like. What do they all have in common? They use the dollar – specifically, $100 bills. In general, I see no harm whatsoever in healthy competition between Europe and the United States. But I do object strongly to Europe competing for American business with these objectionable characters by printing 500 euro notes! We can do without that particular source of seigniorage, and I hope those notes will be issued very sparingly.

I conclude with the role of the euro in the international financial system. I have argued that the euro could attain

a status like that of the dollar as an international currency, within a horizon of 5-10 years, assuming that the UK were to enter and that further financial market integration were successfully implemented (Portes and Rey, 1998).

The United States Treasury's publicly expressed view on any possible challenge to the dollar's international status is lack of concern, if not lack of interest. But was the quick move to block an Asian Monetary Fund really only a reaction to a perceived threat to the IMF? Or might it have reflected some concern to maintain dollar dominance? Dollarisation for emerging markets is popular in the US Congress, and the Treasury's scepticism seems milder and more ambivalent than in pre-euro days. There is evidence of some perception of competition here.

What is the response of the European policy authorities on these issues? The Euro Group has been totally silent on the international role of the euro. The European Central Bank, however, appears to have accepted our analysis of the synergies between the integration of euro-area capital markets, falling transaction costs, and international currency use of the euro. Indeed, it calls this a 'virtuous circle' (ECB 1999, p. 39). Among the virtues are considerable benefits for euro area governments and firms. Yet virtue is not rewarded – nor even encouraged:

'In conclusion, the international role of the euro is mainly determined by the decisions of market participants in a context of increasing integration and liberalisation of product and capital markets worldwide. The Eurosystem therefore adopts a neutral stance, neither hindering nor fostering the international use of its currency.' (ECB 1999, p. 45)

Indeed, the markets will determine the relative status and roles of international currencies. But when there are multiple equilibria, the markets can be guided towards one or another. Why be 'neutral'? Why not go for the 'good equilibrium'? The 'therefore' in the ECB's statement simply does not follow. Perhaps, like many inconsistent statements and policies, it reflects a compromise – in this case, between German and French views.

Competition between the euro and the dollar for the key currency role could be dangerous. Although there are no conclusive arguments that a world of multiple reserve currencies is unstable, the precedent of rivalry between the dollar and sterling in the interwar period is not encouraging. So this may require careful, co-operative management.

The tasks are considerable. The stakes are high. International financial stability is a precious public good. Europe and the euro-area authorities can take concrete actions to support it – EMU and the euro can contribute to international financial stability. But this will require much more focus on these issues than we have seen hitherto.

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2.3 The European Central Bank, the Eurosystem and the European System of Central Banks

by Dr. Willem F. Duisenberg, President of the European Central Bank, at the occasion of the inauguration of the Banque centrale du Luxembourg on 18 May 2001

Your Royal Highness, Prime Minister, Governor Mersch, distinguished guests,

Allow me first to congratulate you on the inauguration of the new premises of the Banque centrale du Luxembourg. You decided to name parts of them – very appropriately, I find – after Pierre Werner, the author of the first blueprint for Economic and Monetary Union in Europe. His report of 1970 laid the conceptual foundations for many aspects of the institutional set-up and policy framework of today's European Central Bank (ECB) and European System of Central Banks (ESCB). Most significantly, Werner presented a lucid account of a fundamental requirement of monetary unification in Europe: no single currency without a common central bank, or rather a "Community system of central banks", as he called it. The distinctly federal character of what Werner saw as the future European monetary authority was in itself a reflection of the fact that Europe is not a single nation, but a group of nations.

Twenty years later, the Treaty on European Union established the European System of Central Banks, with the European Central Bank at its core, and transferred to it the task of conducting a single monetary policy. In addition, the authors of the Treaty recognised that a functioning monetary union requires centralised decision-making and harmonised governance over all those tasks which are closely related to monetary policy. Consequently, responsibility for the management of foreign exchange reserves, for activities to support the oversight of payment systems, for the collection of euro area-wide statistics, for measures to ensure financial stability and for the issuance of banknotes has also been assigned to the ESCB. At this point, I should like to clarify that, for as long as there are EU Member States outside the euro area, all these tasks are being carried out by what we call the Eurosystem, rather than by the ESCB as a whole. The Eurosystem comprises the ECB and the national central banks (NCBs) of the euro area Member States. The Eurosystem's clearly defined policy responsibilities, together with its independence, the strict orientation of monetary policy to stability and the federal institutional model could be regarded as the cornerstones of the "monetary constitution" of the Community.

The Banque centrale du Luxembourg, is – in this sense – a "child" of the success of monetary integration in Europe. Moreover, given today's festive occasion, one could even regard these new premises of the Banque centrale du Luxembourg as a tangible – or shall I say, concrete – expression of the federal character of the Eurosystem. In accordance with the Treaty, the NCBs are integral parts of the Eurosystem. Consequently, the tasks conferred upon the Eurosystem are to be carried out in a collective manner. In line with the principle of subsidiarity, which – in itself – embodies recognition of the fact that responsibilities should be distributed among the central institution and federated units on the basis of functional requirements, the NCBs play an indispensable role in the conduct of the tasks and functions of the Eurosystem.

In the run-up to Stage Three of Economic and Monetary Union, many observers felt that the decentralised monetary policy framework would become too complex and inefficient. However, these concerns have not been borne out by experience, not least because highly developed information technologies make decentralisation entirely feasible. Making use of the NCBs' considerable experience in dealing with their national counterparties has been, and continues to be, a real benefit to the whole system.

Ladies and Gentlemen, it would, however, be an incomplete account of the role of the NCBs in the Eurosystem to focus exclusively on implementation, or "downstream", activities. The NCBs also make a crucial contribution to decision-making further "upstream". The federal character of the Eurosystem is most clearly reflected in the composition of the ECB's decision-making bodies. As members of the Governing Council, the NCB Governors participate – in a personal capacity – in deciding on all centralised policy functions. In addition, the various ESCB Committees provide a tight network of professional, as well as human, connections between NCBs and the ECB. In the work of these Committees, expert knowledge and specific national experience are brought together, so as to provide input into the deliberations of the Eurosystem decision-making bodies.

Last, but by no means least, the NCBs play an indispensable role in communications. Undoubtedly, the multinational, multi-lingual set-up of the Eurosystem presents a challenge, to say the least. In this context,

the NCBs' assistance in conveying the ECB's policy messages in their national languages and their intimate knowledge of the respective national cultural context and communication conventions represent invaluable assets, especially in these early years of the euro. By explaining the reasoning behind the ECB's policy actions in the national political arena, the NCBs make an essential contribution to informing the public debate in their Member States. The upcoming physical introduction of euro banknotes and coins will pose a further communication challenge, since the task of ensuring a smooth changeover will, to a considerable degree, also rest on the shoulders of our colleagues from the NCBs.

Ladies and Gentlemen, before I conclude, allow me briefly to address some of the institutional challenges which the Eurosystem will be facing in the future. First, there is the process of constantly reviewing practices and procedures within the Eurosystem. In this context, I am referring to our joint efforts to fine-tune the existing framework in the light of the experiences of the first two years, so as to increase efficiency and respond to market developments. The reality of the single currency has stimulated changes in market structures which have altered the outlook for and practices of market participants and regulators. It is thus appropriate for the Eurosystem also periodically to review its own procedures which, after all, were designed before the euro came into existence.

In such a dynamic and changing environment, closer co-operation within the Eurosystem can also be beneficial in those policy fields that are not directly linked to core monetary policy tasks, but which have traditionally been a realm of central bank activity. Speaking with one voice and presenting a common view – as, for example, in our recent joint statement on "The role of central banks in prudential supervision" – can help to strengthen the influence of our policy messages and to amplify their public and political impact. Naturally, any such joint, and mutually beneficial, efforts are without prejudice to the distribution of responsibilities between the ECB and the NCBs.

A great challenge for European institutions in general, and for the Eurosystem in particular, will be the forthcoming enlargement of the EU to take in 12 or more countries from central, eastern and southern Europe. In purely institutional terms, the accession of new Member States entails an immediate enlargement of the ESCB, though not of the Eurosystem. However, since enlargement will be a gradual and seemingly open-ended process, it is obvious that the "Eurosystem" as an additional construct to clarify the relationships between the "ins" and the "outs" within the ESCB is here to stay for the foreseeable future. Even so, it is also clear that the introduction of the euro is the final destination for accession countries. In fact, there is even a certain – I believe, understandable – impatience on the part of future new Member States to adopt the euro as soon as possible. However, the Treaty lays down clear criteria for entry into the euro area, and requires their fulfilment in a sustainable manner.

The eventual entry of new Member States into the euro area will also require an adaptation of the institutional framework of the ESCB. Examples of central banks from around the world, such as in United States or in Germany, show that it is possible to design appropriate structures which allow effective decision-making in federal, decentralised systems and to reconcile efficiency demands with considerations of adequate representation. Therefore, I am confident that we will be able to find a solution that guarantees the efficient conduct of a stability-oriented monetary policy also in an enlarged Eurosystem.

Ladies and gentlemen, thank you very much for your attention.