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The International Gold Standard in Theory and Practice in R.G. Hawtrey, H.D. White and r. Triffin : a non-Ricardian filiation

Pierre-Hernan Rojas

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THÈSE DE DOCTORAT

de l'Université de recherche Paris Sciences et Lettres
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Préparée à l'Université Paris-Dauphine

Théorie et pratique de l'étalon-or international chez R.G.
Hawtrey, H.D. White et R. Triffin : une filiation
non-ricardienne

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Soutenue le 14.12.2016
par Pierre-Hernan ROJAS

Dirigée par **M. Jérôme de BOYER**
des ROCHES

COMPOSITION DU JURY :

M. Jérôme de BOYER des ROCHES
Université Paris-Dauphine
Directeur de thèse

M. Alain BÉRAUD
Université de Cergy-Pontoise
Rapporteur

Mme Rebeca GÓMEZ BETANCOURT
Université Lyon 2
Rapporteuse

Mme Martine CARRÉ-TALLON
Université Paris-Dauphine
Membre du jury

M. Ludovic DESMEDT
Université de Bourgogne
Président du jury

M. Ivo MAES
Banque Nationale de Belgique
Membre du jury

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Table des matières

Remerciements	i
Introduction générale	1
La théorie classique de l'étalon-or international	3
1. <i>La variation du pouvoir d'achat de la monnaie entraîne une variation du taux de change</i>	5
2. <i>Taux de change et mouvements d'or</i>	6
3. <i>Conséquences des mouvements d'or et « règles du jeu »</i>	6
4. <i>Taux d'escompte et capitaux à court terme : canal de la balance financière</i>	7
5. <i>Taux d'escompte et prix des biens : canal de la balance commerciale</i>	8
L'étalon-or en pratique : 1880-1914	10
Chronologie de la thèse et centralité de Hawtrey, White et Triffin	14
Plan de la thèse	17
Chapter 1 The Structural Asymmetry of the International Gold Standard in Hawtrey's Works	25
1.1 Introduction	26
1.2 First analysis of the asymmetry: Keynes' <i>Indian Currency and Finance</i> (1913)	29
1.3 The structural asymmetry in Hawtrey's monetary analysis	32
1.3.1 From a closed to an open economy: Hawtrey's analysis of the classical adjustment mechanism	32
1.3.2 Role of London as an international financial center: the asymmetric case	35
1.4 The debate on the gold standard and Hawtrey's monetary reform	37
1.4.1 Hawtrey's advocacy for a managed gold standard	38
1.4.2 The need for cooperation between central banks	43
1.5 Conclusion	48
Annexe 1 : Analyse du taux de change £/\$, 1919-1925	50

Chapter 2	Central banking under the gold standard: Rist versus Hawtrey on the Bank of France's policy from 1928 to 1931 -----	54
2.1	Introduction -----	55
2.2	Historical Summary: France and the return to Gold -----	60
2.3	On the nature of money -----	63
2.4	Rist on the gold standard and the classical adjustment mechanism -----	67
2.5	Hawtrey's asymmetrical view of the gold standard -----	70
2.6	The impossible cooperation between central banks: Rist vs. Hawtrey -----	73
2.7	The rigidity of the French monetary system: the case of open-market operations --	80
2.8	Conclusion -----	85
	Annexe 2 : Analyse du taux de change \$/F, 1919-1927 -----	87
	Annexe 3 : Évolution des taux d'escompte de la <i>FRB</i> NY, de la Banque de France et de la Banque d'Angleterre, 1925-1931 -----	92
Chapter 3	Reforming the International Monetary System in the 1930s: A study of White's Monetary Thought -----	97
3.1	Introduction -----	98
3.2	The adjustment mechanism of the international gold standard in theory and practice -----	101
3.2.1	The influence of Taussig -----	101
3.2.2	White's critic of Taussig's theory: French evidence -----	104
3.3	White's monetary reform proposal: the managed gold standard plan -----	107
3.3.1	The advocacy for a stabilization monetary policy -----	109
3.3.2	A fixed but adjustable exchange rate system -----	113
3.4	The bilateral monetary cooperation -----	115
3.4.1	Currency stabilization as a means to prosperity -----	116
3.4.2	White's proposal in the light of the 1936 Tripartite Agreement -----	119
3.5	Conclusion -----	122

Annexe 4 : Le Fonds de stabilisation américain-----	124
Chapter 4 Triffin Dilemma and Regional Monetary Approach: An Appraisal-----	129
4.1 Introduction -----	130
4.2 A case for a more flexible international monetary system (1942-1947)-----	134
4.2.1 Criticism of the orthodox view of gold standard operation -----	134
4.2.2 The advocacy for counter-cyclical monetary policies-----	138
4.3 Triffin’s advocacy for European monetary integration (1947-1950) -----	141
4.3.1 Bilateralism and liquidity shortage: the IMF’s failure -----	142
4.3.2 A multilateral approach: Triffin and the European Payments Union-----	146
4.4 Triffin Dilemma and Central Banking (1950-1960) -----	151
4.4.1 The European Central Bank -----	152
4.4.2 International liquidity: the dilemma and the remedy-----	155
4.5 Conclusion -----	159
Annexe 5 : Débats anglo-américains (1943) en vue de la conférence de Bretton Woods (1944) -----	161
Appendix 6: The European Payments Union -----	168
Conclusion générale -----	170
Références bibliographiques -----	179

Introduction générale

La notion de système monétaire international (SMI) laisse entendre que les relations monétaires entre les pays sont organisées par des règles et des institutions clairement définies et reconnues par tous. De cette vision normative émerge l'idée que les relations monétaires seraient régulées par les États. La réalité du SMI est toute autre. La dislocation du système de Bretton Woods en 1971 a produit, selon certains (Robert Mundell, 2000, p. 20 ; Jacques Mistral, 2011, p. 115), un basculement vers un non-système où plusieurs régimes de change coexistent. Le rapport annuel du Fonds Monétaire International (FMI) de 2014 fait état de l'extraordinaire variété de ces régimes au niveau mondial ; des changes flottants purs, au *currency board*, en passant par le système d'ancrage avec bandes de fluctuations, ou encore les changes administrés. Cette diversité des régimes de change, répertoriés en dix catégories par le FMI (2014, p. 1), révèle l'absence de règles collectives dans ce domaine. Ce non-système, caractérisé par l'absence de mécanisme qui en assure la régulation, serait à l'origine des déséquilibres mondiaux comme la volatilité accrue des changes, l'accumulation excessive de réserves par les pays émergents ou encore l'asymétrie du processus d'ajustement extérieur entre pays créditeurs et pays débiteurs. En toile de fond, le leadership du dollar comme monnaie internationale est ébranlé par l'évolution du capitalisme mondial où des pays comme la Chine ou ceux de l'Union Économique et Monétaire (zone euro) ont émergé comme des pôles concurrençant les États-Unis. La perpétuation des déséquilibres mondiaux incite à s'interroger sur l'absence de règles monétaires internationales. Paradoxalement, une étude historique du système monétaire international dévoile que la situation actuelle est le résultat de la construction d'un ordre monétaire international où les États avaient institué des règles de gestion commune du SMI. À cet égard, la période qui va de la fin de la Première Guerre mondiale au début des années 1970 est particulièrement éclairante. Bien loin de la dynamique actuelle, cette période a été marquée par les tentatives successives de la part des États de mettre en place des règles et des institutions de régulation, dont le FMI est l'exemple le plus connu. Parallèlement aux évolutions historiques des structures internationales, les théories et

débats monétaires sur cette période ont enrichi la pensée monétaire et influencé les projets de réforme du SMI. La théorie se nourrit de l'histoire des faits et inversement. Cette thèse en histoire de la pensée monétaire internationale se donne pour objectif de comprendre les allers-retours entre théorie et faits afin de comprendre les évolutions du SMI entre 1919 et 1960. Pour éclairer les origines théoriques des réformes du SMI sur cette période, cette thèse étudie les origines, les développements, ainsi que les influences de la pensée monétaire de Ralph George Hawtrey (1879-1975), Harry Dexter White (1892-1948) et Robert Triffin (1911-1993).

Le cadre temporel choisi s'étend de 1919 à 1960 ; 1919 correspond à la publication de l'ouvrage majeur de Hawtrey (*Currency and Credit*) et 1960, à celui de Triffin (*Gold and the Dollar Crisis*). Cet intervalle d'une quarantaine d'années a connu des débats monétaires incessants entre économistes, politiques et banquiers centraux. Au cœur de ces débats, auxquels Hawtrey, White et Triffin ont pris part, la question d'un retour à l'étalon-or international, et de ses différentes modalités, était posée. L'étude de ces débats est riche en enseignements. Tout d'abord, elle révèle une profonde fracture idéologique entre une orthodoxie ricardienne défendue par les tenants d'un étalon-or « classique », et une pensée monétaire moins unifiée mais plus riche, rejetant cette dernière. Ensuite, alors que la théorie classique de l'étalon-or international est traditionnellement analysée comme dominante, c'est en fait la pensée monétaire non-ricardienne qui a influencé les réformes du système monétaire international. Cette pensée est incarnée par Hawtrey, White et Triffin. Nous considérons ces derniers comme centraux dans le cadre de l'étude menée dans cette thèse : ils ont tous les trois remis en cause le cadre analytique standard du SMI et ont porté des réformes monétaires rompant avec la tradition classique ; réformes en partie mises en œuvre sur la période. En identifiant les principales composantes du système monétaire international – place et rôle des monnaies de réserve, régime de change, fourniture de liquidités internationales, surveillance et coopération monétaire – Hawtrey, White et Triffin ont œuvré pour la promotion d'une gestion avisée des relations monétaires internationales. Pour saisir l'apport de ces auteurs, il apparaît nécessaire de rappeler le cadre théorique classique de l'étalon-or que nos trois auteurs rejettent.

La théorie classique de l'étalon-or international

Ce sont les écrits de David Ricardo dans les années 1810-1811 en Angleterre qui fondent la théorie classique de l'étalon-or, et notamment son article de 1810, *The High Price of Bullion, a Proof of the Depreciation of Bank Notes*. Cette théorie s'est développée tout au long du XIX^{ème} siècle à l'occasion de la réforme de la Banque d'Angleterre (*Bank Charter Act* de 1844) et a constitué, au début du XX^{ème} siècle, une orthodoxie particulièrement influente auprès des décideurs politiques et des économistes. Cette théorie a structuré les projets de réformes monétaires en Angleterre (le Comité Cunliffe en 1918 et Bradbury-Chamberlain en 1924) ou encore en France (le Comité des experts de 1926). Les travaux théoriques, statistiques et économétriques réunis dans des ouvrages collectifs publiés par des économistes comme Michael D. Bordo et Anna J. Schwartz (*A Retrospective on the Classical Gold Standard, 1821-1931* ; 1984) ainsi que Barry Eichengreen (*The Gold Standard in Theory and Practice*, 1985) ont démontré que le fonctionnement de l'étalon-or international sur la période 1880-1914 invalidait les présupposés classiques. Nous soulevons donc une question essentielle : quel est le modèle économique théorique qui est explicité par ces économistes ? La réponse à cette interrogation est d'importance car elle permet de comprendre quel est le cadre théorique rejeté par Hawtrey, White et Triffin.

Prenant comme point de départ les thèses de Hume¹ et de Ricardo, Bordo et Schwartz (1984) et Eichengreen (1985) énoncent que dans un système d'étalon-or international, les variations des prix et des taux d'intérêts sont déterminées par les mouvements d'or entre les pays. On distingue traditionnellement trois formes d'étalon or : la forme classique est l'étalon or-pièce où la monnaie en circulation est composée de pièces d'or et de billets convertibles en or ; l'étalon or-lingot où l'or est démonétisé pour la circulation interne et centralisé dans les réserves de la banque centrale pour assurer la convertibilité externe de la monnaie; enfin, l'étalon de change-or où la banque centrale détient des réserves de devises convertibles en or pour assurer la stabilité de son taux de change. Le type d'étalon-or considéré dans la théorie classique est l'étalon-or pièce: l'unité monétaire est définie en référence à un poids fixe d'or et chaque monnaie nationale est librement convertible en or. Pour assurer cet engagement de conversion, la quantité de monnaie émise par le système

¹ Dans « *Essays, Moral, Political, and Literary* », part II, Essay V, "Of the Balance of Trade", 1752.

bancaire est limitée par les réserves d'or dont le niveau dépend de la contrainte extérieure. Ainsi, les politiques économiques nationales, et notamment la politique monétaire de la banque centrale, sont soumises à l'équilibre externe. Le système est donc rigide puisque les autorités monétaires doivent respecter les engagements de convertibilité de la monnaie en or et ont, pour ce faire, peu de marges de manœuvre. L'objectif prioritaire est le maintien du lien entre niveau des réserves métalliques et masse monétaire. En cas de choc, un mécanisme régulateur opère pour restaurer l'équilibre. Selon Bordo, ce mécanisme d'ajustement de la balance des paiements est le mécanisme des prix et des flux d'espèces :

Thus the price-specie-flow mechanism was the means by which arbitrage in one commodity – gold – between nations and regions, served to keep overall national (regional) price levels in line and to maintain balance-of-payments equilibrium. (Bordo, 1984, p. 24)

En économie ouverte, les ajustements se réalisent via les forces de marché, et la version stricte de la théorie quantitative de la monnaie est admise. Dans l'approche classique, tout déséquilibre de la balance des paiements – qu'il soit réel ou monétaire – se résorbe par la variation de la quantité de monnaie. Selon la théorie quantitative de la monnaie, une augmentation de l'offre de monnaie par exemple se solde par de l'inflation, détériorant le pouvoir d'achat de la monnaie. C'est cette divergence entre les mouvements des prix nationaux et ceux des prix étrangers qui déclenche une exportation de l'or vers les pays dans lesquels la valeur de l'or est plus élevée. Le rééquilibrage se réalise via les mouvements d'or entre les pays, donnant lieu à une variation des agrégats macroéconomiques nationaux. La dynamique de l'offre de monnaie dépend donc unilatéralement des mouvements d'or. Selon Eichengreen :

Balance-of-payments settlements are effected through international transfers of gold, and balance-of-payments equilibrium is obtained through the impact of gold flows on internal conditions. (Eichengreen, 1985, p. 4)

Décrivons le mécanisme d'ajustement dans le cadre théorique classique. Le système d'étalon-or international consacre le régime de changes fixes. Le marché des changes est le marché sur lequel se rencontrent les offres et demandes de devises et où se fixe le taux de change. Puisque les unités monétaires nationales sont définies en un poids fixe d'or, il est possible de définir le taux de change d'équilibre – le pair de change – qui correspond au

rapport des quantités d'or dans lesquelles sont définies les monnaies nationales. Le taux de change de marché, celui qui se fixe en fonction des offres et demandes journalières, peut fluctuer autour du pair de change, dans une marge définie par les points d'entrée et de sortie d'or. Les points d'or sont calculés en fonction du pair de change et des coûts d'assurance et de transport de l'or d'un pays à l'autre. Une dépréciation trop importante du taux de change, en atteignant le point de sortie d'or, déclenche des arbitrages consistant à demander la monnaie nationale sur le marché des changes, la convertir en or et l'exporter vers le pays où sa conversion en devises permet de réaliser un gain financier. Ce mécanisme dit des « points d'or » assure le rééquilibrage du taux de change. Supposons deux pays, la France et l'Angleterre, tous deux en étalon-or tel qu'il prévalait avant 1914. En Angleterre, une once d'or définissait 3£. 17Shilling. 10^{1/2}pences, c'est à dire 3,98375£. En France, la définition de l'once d'or était de 98,2137F. Il est possible de définir le pair de change comme le rapport des poids d'or des deux unités monétaires : $£1 = \frac{98.2137}{3.89375} F = 25.22 F$. Le taux de change d'équilibre était donc de 1£ pour 25,22F. À l'équilibre, le taux de change de marché est stabilisé au pair de change. Décrivons désormais la séquence de l'ajustement en cas de choc exogène.

1. La variation du pouvoir d'achat de la monnaie entraîne une variation du taux de change

Supposons que l'Angleterre connaisse une vague inflationniste suite à la découverte d'une mine d'or. Nous prenons le même exemple que Bordo, emprunté à Hume (1752) :

For example, a gold discovery in one country would lead to an increase in its money supply [and] an increase in its price level. (Bordo, 1984, p. 24)

Comme énoncé ci-dessus, une hausse de la quantité d'or en Angleterre va accroître la circulation des espèces métalliques. Selon la théorie quantitative, en supposant la vitesse de circulation de la monnaie constante, la hausse de la masse monétaire se traduit par une hausse des prix. Cette hausse du niveau des prix détériore la compétitivité britannique. La demande française pour les produits britanniques diminue, conduisant à un déficit de la balance commerciale britannique. Ce déficit se traduit par une offre excédentaire de livres sur le marché des changes, produisant une chute du taux de change £/F.

2. Taux de change et mouvements d'or

En étalon-or, le taux de change admet une marge de fluctuation comprise entre les points d'or. Si l'on suppose que le coût de transfert de l'or entre la France et l'Angleterre correspond à 2% de sa valeur, alors le taux de change £/F fluctue entre 24,71FF (point de sortie d'or pour l'Angleterre) et 25,72F (point d'entrée d'or pour l'Angleterre). Lorsque le taux de change £/F atteint 24,71, les arbitragistes – négociants en lingots, banques commerciales – interviennent. En effet, un arbitrage combinant des interventions sur le marché des changes et le marché de l'or britannique devient désormais profitable. Illustrons l'opération d'arbitrage : supposons que le taux de change £/F atteigne 24,50F, conséquence du déficit de la balance commerciale britannique. Le négociant en lingot décide de convertir, par exemple, son dépôt de 10 000F en un dépôt libellé en £ sur le marché des changes : il obtient donc 408,16£. Puisque la livre équivaut à 7,3217 grammes d'or fin, le négociant, en convertissant son dépôt en or, obtient 2988,43 grammes d'or fin. Étant donné le coût de transfert de l'or entre les deux pays (2%), le négociant exporte 2928,6614 grammes d'or en France. Le franc or équivalant à 0,2903 grammes d'or fin, le négociant obtient un dépôt en franc de 10088,4F. Le gain est donc de 88,4F couvrant les frais de transfert de l'or de Londres à Paris. En faisant naître une demande de livre contre une offre de francs, ces opérations d'arbitrage tendent à ramener le taux de change £/F au-dessus du point de sortie d'or pour l'Angleterre. En d'autres termes, en modifiant les offres et demandes de devises, ces arbitrages assurent que le taux de change fluctue entre les points d'or. Notons qu'entre les points d'or, il n'y a pas d'opérations d'arbitrage.

3. Conséquences des mouvements d'or et « règles du jeu »²

En étalon-or, les banques commerciales doivent respecter un ratio entre le montant de leurs réserves métalliques et leur passif (billets et dépôts). Ainsi, une baisse de leurs réserves métalliques dégrade ce ratio, les obligeant à ajuster à la baisse leur passif. Pour se faire, les banques augmentent leur taux d'escompte du papier commercial avant que la convertibilité-

² Comme le souligne Bloomfield (1959, p. 15) et Eichengreen (1985, p. 14), le concept de « règles du jeu » a été conçu et développé par littérature de l'entre-deux-guerres (notamment Keynes, 1925, p. 114). Pour la suite de notre travail, nous considérons que ces « règles du jeu » sont celles décrites par la tradition ricardienne.

or de leurs engagements ne soit menacée³. En sus de l'action décentralisée des banques commerciales, la banque centrale doit respecter les « règles du jeu » de l'étalon-or, ne devant « prendre aucune initiative délibérée pour compenser l'effet normal des entrées d'or qui accroissent les encaisses des banques commerciales ou l'effet des sorties d'or qui contractent ces encaisses » (Arthur I. Bloomfield, 1959, p. 15). Non seulement la banque centrale ne doit pas compenser les mouvements d'or par une politique de stérilisation mais elle doit renforcer ses effets via sa politique de taux d'escompte. Dans notre exemple, puisque l'Angleterre subit une sortie d'or, la Banque d'Angleterre est obligée de procéder à une hausse du taux d'escompte, ce qui renchérit les taux d'intérêts à court terme et contracte le crédit. Cette politique monétaire accélère le processus de déflation et restaure l'équilibre extérieur. L'inverse se produit en France : la hausse des réserves métalliques incite les banques commerciales à être plus souples quant à la fixation de leur taux d'escompte, effet renforcé par la baisse du taux d'escompte de la Banque de France.

4. Taux d'escompte et capitaux à court terme : canal de la balance financière

La hausse du taux d'escompte en Angleterre attire les capitaux à court terme français et incite les capitalistes britanniques à ne pas exporter les leurs. Hormis le différentiel de taux d'intérêts entre l'Angleterre et la France, en la faveur de cette première, la chute du change de la livre favorise les mouvements de fonds en accroissant les possibilités de plus-value. Initialement, le mécanisme d'ajustement n'était analysé que sous le prisme de l'effet de la sortie d'or sur les mouvements de prix des marchandises. Cependant, la théorie classique a progressivement considéré les mouvements de capitaux à court terme comme une modalité du processus d'ajustement extérieur. Comme le souligne Bordo :

The original conception of the price-specie-flow adjustment mechanism was that it operated through flows of goods and money, but by the middle of the nineteenth century, emphasis was also placed on the role of short-term capital flows as part of the equilibrium mechanism. (Bordo, 1984, p. 25)

³ Rappelons que l'escompte est une opération par laquelle un producteur qui possède un titre de créance à terme sur un débiteur remet ce titre à une banque, qui lui verse directement le montant en dépôt.

La politique monétaire britannique, par ses effets sur les taux courts, améliore donc la rémunération des investissements de portefeuille, ce qui réduit l'excès d'offre de livre sur le marché des changes. L'inverse se produit en France.

5. Taux d'escompte et prix des biens : canal de la balance commerciale

À long terme, la hausse du taux d'escompte produit ses effets sur le revenu et les prix nationaux. En effet, la contraction du crédit britannique déprime la demande domestique pour les produits nationaux et les produits étrangers, ce qui contracte les prix des produits nationaux. À l'inverse, en France, la politique monétaire relâche les conditions d'accès au crédit, stimule donc la demande et tend à faire augmenter les prix des produits nationaux. Ainsi, la balance commerciale britannique s'améliore : la contraction nationale tend à faire diminuer le volume d'importations de France, accentuée par l'inflation française et la baisse des prix des biens britanniques stimule les exportations, favorisées par une hausse de la demande française. Ce double effet restaure l'équilibre de la balance commerciale.

En conclusion, tout déséquilibre de la balance des paiements se résorbe grâce aux mouvements d'or, et leurs effets sur les prix. Le canal de la balance commerciale et celui de la balance financière sont les deux canaux par lesquels l'équilibre extérieur est restauré. La théorie classique de l'étalon-or international repose sur deux hypothèses centrales : la symétrie (le mécanisme d'ajustement est le même pour tous les pays et dépend des différentiels de taux d'inflation et d'intérêts entre les pays) et l'automatisme (le marché ajuste les variables économiques, restreignant le pouvoir des banques centrales).

Notons néanmoins que les origines intellectuelles du modèle théorique de l'étalon-or défini par les économistes historiens ne font pas l'unanimité. En effet, Bordo, Schwartz et Eichengreen tirent leurs analyses des développements de Ricardo, au cours de la controverse bullioniste en 1810-1811, puis de ceux de George J. Goschen (1861) et John Stuart Mill (1865). Le point de départ de cette tradition est la théorie de Hume (1752). Or, comme le souligne Jérôme de Boyer des Roches (2003, 2007) et de Boyer des Roches et Sylvie Diatkine (2008), le mécanisme des prix et des flux d'espèces de Ricardo, développé à l'occasion de la controverse bullioniste, diffère du mécanisme décrit par Bordo, Schwartz et Eichengreen. Selon Ricardo, l'inflation réduit la valeur de la monnaie, incitant les agents à

exporter l'or non pas comme monnaie mais comme marchandise vers les pays où sa valeur vis-à-vis des autres marchandises s'est maintenue. L'exportation d'or contracte la masse monétaire nationale, cause le déficit extérieur et fait baisser le taux de change. En d'autres termes, « la réduction de la quantité de monnaie qui accompagne tout déficit est choisie, elle n'est pas une nécessité » (de Boyer des Roches, 2002, p. 1). Ricardo décrit le mécanisme d'arbitrage de l'or vis-à-vis des autres marchandises entre les pays. Le mécanisme des points d'or n'est pas développé dans les analyses de Hume et de Ricardo⁴ puisque ni le fonctionnement du marché des changes ni celui du marché monétaire n'y sont décrits. Le mécanisme des points d'or auquel font référence Bordo, Schwartz et Eichengreen est en fait attribué à Henry Thornton (1802). Selon ce dernier, les flux de marchandises et de capitaux donnent lieu à des offres et demandes de devises sur le marché des changes, faisant varier le taux de change entre les points d'or. Ainsi, le taux de change peut atteindre le point de sortie d'or, provoquer une exportation du métal jaune sans que le pouvoir d'achat de la monnaie n'ait été déprécié auparavant. Autrement dit, les mouvements d'or sont la conséquence du déficit de la balance des paiements et non la cause. Ces deux thèses ont été développées à l'occasion de la controverse bullioniste en 1810-1811 en Angleterre⁵. Notons que Thornton considère que les causes du déficit extérieur peuvent être réelles – circonstances exceptionnelles dues à la guerre – et/ou monétaires – surémission de monnaie papier par la banque centrale.

Le mécanisme des prix et des flux d'espèces présenté par Bordo, Schwartz et Eichengreen correspond non pas au mécanisme développé par Hume et Ricardo mais au mécanisme des points d'or thortonien, critiqué par Ricardo au cours de la controverse bullioniste. Les théoriciens – Malthus (1811), Tooke (1844) et Viner (1924) – et plus

⁴ Hormis dans la chapitre 7 de l'ouvrage de Ricardo, *Des principes de l'économie politique et de l'impôt* (1817).

⁵ En 1810, le Parlement nomme le *Bullion Committee* pour tenter d'expliquer les raisons de la dépréciation du taux de change de la livre et du haut prix du lingot sur le marché libre de l'or, depuis la suspension de la convertibilité or de la livre en 1797. À l'occasion de ce rapport, deux camps se sont opposés. Pour les bullionistes, dont Ricardo était la figure de proue, l'inflation était le résultat de la surémission de billets par la Banque d'Angleterre, entraînant une différence entre le prix légal de l'or et son prix de marché, ce dernier ayant augmenté. Cette différence ne pouvait se résorber par le mécanisme régulateur de l'étalon-or puisque le billet était inconvertible. La conséquence était donc le creusement du déficit extérieur, du fait de l'exportation de l'or, et la chute du taux de change. Au contraire, pour les anti-bullionistes, le déficit extérieur est dû aux flux économiques et financiers entre l'Angleterre et le continent européen : la mauvaise récolte a forcé l'Angleterre à importer du blé et cette dernière a effectué des transferts pour venir en aide à ses alliés afin de faire face à Napoléon. Ainsi, la baisse du taux de change et le haut prix du lingot est la conséquence du déficit de la balance des paiements. Voir Diatkine (2002, pp. 67-70).

récemment des historiens de la pensée monétaire – de Boyer des Roches (2002, 2003, 2007) et de Boyer des Roches et Diatkine (2008) – ont déjà mentionné que le mécanisme des points d'or était imputable aux développements de Thornton et non à ceux de Ricardo. Pour un avis contraire, nous nous référons aux travaux de Maria Christina Marcuzzo et Annalisa Rosselli (1986, 1994) et Ghislain Deleplace (1999). Dans le cadre de cette thèse, nous ne rentrons pas dans cette controverse. Il semble que la confusion entre le mécanisme ricardien des prix et des flux d'espèces et le mécanisme des points d'or de Thornton dans la seconde moitié du XIX^{ème} siècle est à l'origine de l'attribution du second mécanisme à Ricardo (de Boyer des Roches et Diatkine, 2008, p. 190). L'orthodoxie monétaire britannique, qui constitue le cœur de la théorie de l'étalon-or international, admet, elle aussi, cette confusion, imputable à John Stuart Mill. Nous considérons que l'orthodoxie monétaire britannique est la théorie classique présentée dans cette introduction de thèse, qualifiée de tradition ricardienne par la littérature secondaire. Résumons-la : le cadre analytique est celui des points d'or, le déséquilibre extérieur est vu comme la conséquence de l'inflation, les mouvements d'or – et donc la variation de la masse monétaire – permettent le rétablissement de l'équilibre extérieur via leurs effets sur les variables macroéconomiques nationales.

L'étalon-or en pratique : 1880-1914

Le modèle théorique, pour abstrait et simplificateur qu'il soit, vise à tirer des conclusions vérifiables sur le mécanisme d'ajustement de l'étalon-or international. Or, cette confrontation à la réalité historique montre qu'il échoue à expliquer le fonctionnement du SMI avant 1914. Bien avant les études cliométriques contemporaines, Hawtrey, White et Triffin avaient souligné le décalage entre la théorie orthodoxe et les faits. Les critiques de ces trois auteurs portent sur les hypothèses d'automatisme et de symétrie, amendant la séquence de l'ajustement présenté plus haut. Leurs critiques les ont conduits à formuler des prescriptions visant à améliorer le fonctionnement du SMI. Soulignons quelques faits stylisés sur le fonctionnement de l'étalon-or international entre 1880 et 1914.

Premièrement, même si le rôle des mouvements de capitaux courts est reconnu comme un facteur accélérant le rétablissement de l'équilibre extérieur, le rôle des capitaux

de long terme a été sous-estimé par la théorie orthodoxe. Selon cette dernière, tout déficit extérieur est restauré par l'effet que produit les mouvements d'or sur le taux d'escompte de la banque centrale et donc sur les prix. En réalité, avant 1914, les déficits commerciaux n'étaient pas automatiquement résorbés car ils étaient financés par des investissements de long terme. Les pays développés, comme la France ou l'Angleterre, étaient des pays exportateurs de capitaux vers les pays en développement comme les États-Unis, le Canada ou l'Argentine. Par conséquent, le maintien de la convertibilité-or de la monnaie a été facilité par le fait que bien souvent, malgré des déficits commerciaux importants, les pays n'étaient pas contraints de mettre en œuvre des politiques déflationnistes. Ceci a été souligné par Frank W. Taussig et les travaux de ses étudiants comme Jacob Viner, John H. Williams ou encore White. Reconnaisant l'importance du travail accompli par Taussig, Triffin note :

(...) l'importance considérable qu'avaient les mouvements de capitaux dans le financement et l'amortissement – et en conséquence, dans la poursuite plutôt que la correction – des déséquilibres de la balance courante. Des déséquilibres importants, persistants et souvent croissants ne faisaient apparaître, ou ne nécessitaient aucune correction, pendant plusieurs décades, voire même pendant tout le siècle allant des guerres napoléoniennes à la première guerre mondiale. (Triffin, 1962, p. 29)

Triffin estime que les importations nettes annuelles de capitaux longs aux États-Unis était d'au moins 50 millions de dollars entre 1850 et 1914, et que les exportations nettes annuelles de capitaux longs britanniques atteignaient 250 millions de dollars entre 1850 et 1906, et près de 900 millions entre 1906 et 1913. Cette prise en compte des capitaux longs entre pays développés et pays en développement permet d'éclairer en partie les raisons du bon fonctionnement de l'étalon-or avant 1914. Ce point est crucial pour comprendre les enjeux des débats dans les années 1920 et 1940 sur le financement des déficits de la balance des paiements alors que les conditions dans lesquelles fonctionnait l'étalon-or international avant 1914 avaient disparu.

Deuxièmement, la théorie classique énonce que la politique monétaire est contrainte par le mécanisme automatique d'ajustement de la balance des paiements. Le taux d'escompte de la banque centrale est supposé varier dans le sens inverse de celui des réserves métalliques – ou de la couverture-or des exigibilités de la banque centrale – qui

dépendent à leur tour de l'état de la balance des paiements. En réalité, l'étude des bilans des principales banques centrales des pays d'Europe dévoile que les « règles du jeu » ont bien souvent été outrepassées et que le lien de corrélation négatif entre taux de couverture-or des engagements à vue de la banque centrale et leur taux d'escompte n'est pas vérifié (Nurske, 1944 ; Bloomfield 1959 ; Bordo et Ronald McDonald, 1997, 2003). Bien souvent, les variations de taux d'escompte n'étaient pas mues par les variations des réserves métalliques mais par les modifications des taux d'escompte à l'étranger, notamment en Allemagne ou en Angleterre. De plus, les banques centrales avaient à leur disposition d'autres instruments de politique monétaire afin d'isoler les économies des variations de taux à l'étranger et des mouvements d'or qui en résultaient : politique de prime sur l'or qui consistait à modifier le point de sortie d'or sans changer le prix officiel de l'or, politique active de change en utilisant des devises pour éviter que le taux de change n'atteigne les points d'or, coopération bilatérale entre banques centrales en cas de crise de liquidité. Dans son étude sur le fonctionnement de l'étalon-or en France entre 1880 et 1913, White (1933) avait analysé la façon dont la Banque de France modifiait le point de sortie d'or pour maintenir stable son taux d'escompte, et contrecarrer les effets de la variation des taux à l'étranger. Loin d'être un système automatique, l'étalon-or international était un système dans lequel les banques centrales s'octroyaient d'autres marges de manœuvre que celles définies par la théorie.

Troisièmement, la théorie classique suppose que le système monétaire international d'avant 1914 était symétrique, constitué d'un ensemble de pays homogènes, et que le mécanisme d'ajustement était le même pour tous. En réalité, le fonctionnement de l'étalon-or reposait sur l'interaction entre le centre et la périphérie, avec l'Angleterre comme pays dominant. L'asymétrie comme structure du système monétaire international est la clef de voûte des analyses de Hawtrey, White et Triffin. C'est la reconnaissance de l'asymétrie qui les pousse à rejeter le mécanisme classique de l'étalon-or ainsi que les politiques orthodoxes. Qu'entend-t-on par asymétrie ? Dans le modèle classique, les pays ont le même niveau de développement, les mouvements de capitaux à court terme facilitent l'ajustement extérieur et l'or constitue l'actif par excellence pour régler les soldes commerciaux dans l'espace économique international. Cette vision simplifiée des relations économiques et monétaires internationales induit en erreur sur la nature du fonctionnement de l'étalon-or

international. Avant 1914, une asymétrie prévalait entre les pays centres – pays industrialisés qui libellaient les contrats économiques internationaux dans leur devise – et pays périphériques – pays en développement, souvent sous le contrôle d’une puissance coloniale comme l’Angleterre, produisant des matières premières, avec un système monétaire et bancaire peu développé. L’antériorité de l’entrée de l’Angleterre dans la Révolution Industrielle et la suprématie de l’économie britannique tout au long du XIX^{ème} siècle ont favorisé le développement des investissements directs à l’étranger – acquisition d’intérêts hors des frontières britanniques – et a favorisé l’utilisation de la livre comme monnaie internationale (unité de compte des contrats, moyen de paiement et réserve de change des banques centrales). En effet, Londres était le centre de la finance internationale grâce au développement d’un système bancaire composé de banques britanniques et de succursales de banques étrangères spécialisées dans le financement du commerce international. David Williams (1968, p. 268) estime que près de 60% du commerce international était financé par des lettres de change libellées en sterling et que Londres était considérée comme la chambre de compensation pour les importateurs et exportateurs étrangers. De plus, le taux d’escompte de la Banque d’Angleterre était non seulement directeur pour le système bancaire britannique mais aussi pour les autres pays en étalon-or. L’analyse monétaire de Hawtrey est centrée sur la reconnaissance de cette asymétrie :

The nineteenth century credit system is not to be interpreted as consisting of a number of countries each exercising independent control over credit within its own limits, and being led by the influence of gold movements to accommodate its credit policy to that of the others. It is rather to be regarded as a centralized system responding to a leader. The center was London and the leader the Bank of England. (Hawtrey, 1929, p. 70)

Comme l’ont souligné de nombreux auteurs a posteriori comme Brown (1940) et Bloomfield (1959), les variations du taux d’escompte de la Banque d’Angleterre induisaient des variations des taux d’escompte des autres pays en étalon-or, afin d’éviter une sortie d’or. La Banque d’Angleterre gérait donc la conjoncture dans les pays centres. L’asymétrie prévalait aussi entre pays centres et pays périphériques. En effet, comme l’ont souligné John H. Williams (1920) ou encore Triffin (1944, 1945), les pays d’Amérique latine comme l’Argentine subissaient l’instabilité générée par la conjoncture des pays centres. Ces pays étaient dépendants des flux de marchandises dont la demande était déterminée par le

pouvoir d'achat dans les pays centres, et des flux de capitaux conditionnés par les perspectives de placement. Bien souvent, les banques centrales de ces pays étaient très peu développées et mises en place par les pays centres, pour limiter le plus possible le pouvoir discrétionnaire de la politique monétaire et ainsi cantonner la banque centrale à suivre les « règles du jeu » de l'étalon-or. Les pays périphériques étaient tributaires des cycles mondiaux, initiés par la conjoncture des pays centres, entre autre de l'Angleterre, et le respect de la contrainte extérieure entraînait une instabilité de leurs réserves officielles, et donc de la masse monétaire.

Cette comparaison entre la théorie de l'étalon-or et son fonctionnement fonde les études d'Hawtrey, White et Triffin. La reconnaissance du caractère non-automatique et asymétrique du système monétaire international structure les propositions de réformes monétaires développées par ces trois auteurs. Cette mise en perspective est importante car elle permet de mieux saisir les enjeux des débats monétaires internationaux sur la période 1919-1960 en Europe, en Angleterre ainsi qu'aux États-Unis.

Chronologie de la thèse et centralité de Hawtrey, White et Triffin

Sur la période que couvre cette thèse, Hawtrey, White et Triffin ont activement participé aux débats monétaires nationaux et internationaux en marquant leur désaccord vis-à-vis de l'orthodoxie monétaire. En 1922, lors de la Conférence économique internationale de Gênes, et a fortiori en 1944 à Bretton Woods, les pays tentent de s'organiser pour créer un véritable ordre monétaire international fondé sur la coopération entre banques centrales. Cette période est aussi marquée par la création d'institutions monétaires internationales. comme la Banque des Règlements Internationaux (1930), le Fonds Monétaire International (1944), la Banque Mondiale (1944) ou encore l'Union Européenne des Paiements (1950). S'éloignant de la vision classique d'avant 1914 qui considérait que le système d'étalon-or fonctionnait sans intervention active des autorités monétaires, les plans de réformes que nous étudions dans cette thèse admettent au contraire une institutionnalisation de la coopération entre les pays. L'étalon de change-or proposé en 1922 et 1944 est une forme d'étalon-or qui ne s'inscrit pas dans l'orthodoxie monétaire. En effet, les plans de réformes de l'étalon-or avant 1914 étaient mis en œuvre

dans les pays périphériques comme l'Inde ou les Philippines et avaient pour seul objectif de stabiliser le taux de change vis-à-vis de la monnaie des pays centres (la livre et le dollar), souvent puissance coloniale. Le bon fonctionnement de l'étalon de change-or proposé par des auteurs comme Hawtrey en 1922 ou encore White dans les années 1930 ou en 1944 à Bretton Woods nécessite une souplesse de l'offre de monnaie et une réelle discrétion de la part de la banque centrale pour stabiliser l'activité économique via l'open-market et le taux d'intérêt. C'est aussi la question de la fourniture des liquidités internationales qui est posée par ces auteurs ; l'or ne pouvant plus répondre à une croissance du commerce international, les balances sterling et dollars étaient considérées comme une alternative au métal jaune. Même s'il admet l'importance de la coopération entre banques centrales, Triffin considère l'étalon de change-or comme instable par nature puisqu'il repose sur l'utilisation de monnaies nationales comme monnaie internationale. Alors que ces trois auteurs partagent la même vision asymétrique du système monétaire international, ils ne proposent pas les mêmes expédients.

L'étude de la pensée et des travaux de ces trois auteurs nous permettent de confirmer leur influence sur les réformes monétaires internationales. Paradoxalement, alors que la théorie classique de l'étalon-or – telle qu'elle a été présentée plus haut – était considérée comme dominante au début de la période étudiée, nous soutenons que les réformes mises en œuvre sur la période sont développées hors de ce cadre théorique classique. En ce sens, les auteurs auxquels nous nous intéressons ont été plus influents sur le cours de l'histoire monétaire du XX^{ème} siècle qu'il est généralement admis. Notre thèse souligne le lien de filiation intellectuelle entre Hawtrey, White et Triffin, s'articulant autour du rejet de la théorie monétaire ricardienne et des hypothèses qui la sous-tendent. Cependant, nous ne pouvons pas parler de tradition. En effet, la tradition ricardienne constitue bien un ensemble de doctrines dont la transmission s'est faite au cours du XIX^{ème} siècle pour former un tout, cohérent, sur les thèmes comme le rôle et la définition de la monnaie, le rôle de la banque centrale ou encore le mécanisme d'ajustement extérieur. La pensée monétaire que nous étudions dans cette thèse est riche mais sans être homogène ; ainsi nous considérons qu'il existe une continuité entre Hawtrey, White et Triffin mais sans qu'il soit possible de faire émerger une doctrine à part entière.

Cette thèse n'a pas la prétention d'être exhaustive sur le sujet. En effet, hormis Hawtrey, White et Triffin, d'autres auteurs sont eux-aussi très importants ; le premier d'entre eux étant John Maynard Keynes. C'est pour cela que nous mettons en perspective les développements de Hawtrey, White et Triffin à la lumière des théories et réformes proposées par Keynes dans *l'Indian Currency and Finance* (1913), le *Tract on Monetary Reform* (1923), ainsi qu'à Bretton Woods (1944)⁶. Deux autres auteurs sont importants sur la période : Jacques Rueff, le tenant de la tradition classique de l'étalon-or et Milton Friedman, critique du système de Bretton Woods et défenseur du régime de changes flottants. En traitant les thèses de Rist, mentor de Rueff, nous étudions l'approche de l'un des tenants de l'orthodoxie monétaire. L'étude de sa pensée de Friedman ne s'inscrit pas dans la problématique de cette thèse. Cependant, nous traitons son plaidoyer pour un régime de changes flottants en conclusion.

Cette thèse est constituée de quatre articles de recherche qui forment les chapitres. Ces chapitres sont indépendants les uns des autres mais s'articulent autour de la problématique définie dans cette introduction. Dans le premier chapitre, nous étudions la théorie monétaire internationale de Hawtrey et son influence sur la restauration d'un ordre monétaire européen. Cette partie illustre la première tentative de réforme du système monétaire international après le premier conflit mondial dans la perspective d'une gestion coordonnée entre les pays centres. Le second chapitre se focalise sur le débat entre Hawtrey et Charles Rist à propos de la politique de la Banque de France entre 1928 et 1931. Ce chapitre illustre les divergences théoriques entre Hawtrey et Rist, l'un des tenants de l'approche classique. Notons que sur le mécanisme d'ajustement de la balance des paiements, Rist est plus thornntonien que ricardien car il considère que le déficit extérieur n'est pas toujours la conséquence de l'inflation. Le troisième chapitre analyse la pensée monétaire de White dans les années 1930 et fournit un éclairage théorique sur la pensée monétaire de celui qui a dirigé la délégation américaine à Bretton Woods en 1944. Le quatrième chapitre porte sur la période de Bretton Woods et s'intéresse aux origines du dilemme de Triffin. Nous considérons que la contextualisation des débats monétaires sur la

⁶ Pour une étude plus poussée de l'économie de Keynes, nous renvoyons à l'ouvrage de Donald Moggridge, *Maynard Keynes: An Economist's Biography* (1995), et celui de Gilles Dostaler, *Keynes et ses combats* (2009).

période est un prérequis à la bonne compréhension des thèses et des propositions de nos auteurs. Par conséquent, des annexes aux chapitres ont été insérées.

Plan de la thèse

La chapitre 1 – *The Structural Asymmetry of the International Gold Standard in Hawtrey's Works* – étudie la théorie monétaire internationale de Hawtrey, fondée sur le caractère asymétrique de l'étalon-or, ainsi que les propositions faites par ce dernier pour réformer le système monétaire international. Hawtrey a eu une place particulière dans le paysage intellectuel et politique britannique de l'entre-deux-guerres : *Director of Financial Enquiries* au Trésor entre 1919 et 1947, Hawtrey a développé une théorie des cycles monétaires fondée sur le caractère instable du crédit bancaire. Le drainage tardif des espèces des banques, suite à une expansion du crédit, trompe les banquiers sur leur politique de crédit et génère des fluctuations économiques. Ainsi, dans un régime d'étalon-or pièce, où l'offre de monnaie est rigide, le crédit se heurte à la quantité limitée des moyens de paiements et la banque centrale doit mener une politique discrétionnaire de taux d'escompte pour à la fois gérer les crises de liquidité du système bancaire et stabiliser les agrégats macroéconomiques. Hawtrey promeut donc une gestion avisée du système monétaire par la banque centrale et non pas passive, comme c'est le cas dans la tradition ricardienne. La théorie monétaire de Hawtrey en économie fermée a été largement étudiée (de Boyer des Roches, 1985 ; Patrick Deutscher, 1990 ; David Laidler, 1991 et 1993) et a eu une influence importante au niveau académique (l'ouvrage de Hawtrey, *Currency and Credit*, faisait partie de l'enseignement d'économie à Harvard jusqu'au début des années 1930). De plus, Hawtrey avait pour habitude de conseiller Montagu Norman, alors Gouverneur de la Banque d'Angleterre entre 1920 et 1944 ainsi que Basil Blackett et Otto Niemeyer, respectivement Contrôleurs des Finances entre 1917-1922 et 1922-1927.

L'apport de ce chapitre repose sur la mise en évidence de la particularité de la théorie de l'étalon-or international développée par Hawtrey – qui n'a pas été étudiée dans la littérature secondaire – permettant de mieux saisir ses propositions de réforme monétaire. Hawtrey est critique de la vision symétrique du fonctionnement du système monétaire international présentée dans cette introduction et développe une approche originale dans

laquelle l'asymétrie structure les relations monétaires et financières internationales. Londres est le centre de la finance internationale et la livre sterling est la monnaie pivot du système monétaire international, à la fois comme réserve de change des banques centrales, comme unité de compte des contrats économiques et moyen de paiement dans le commerce international. Dès lors, puisque les paiements internationaux se réalisent à Londres – même ceux qui n'impliquent pas la Grande Bretagne – et que le système bancaire britannique est la « *chambre de compensation du commerce international* » (Hawtrey, 1919a, p. 106), Hawtrey affirme que l'instabilité du crédit britannique est de nature internationale car il agit sur la demande de biens des négociants internationaux. Ainsi, la chute du change au point de sortie d'or, résultant d'une instabilité du crédit national, ne fournit pas un signal pour la conduite de la politique de la banque centrale. Au contraire, il y a une demande soutenue pour la livre sur le marché des changes car la devise britannique est la monnaie internationale. L'expansion du crédit britannique se traduit donc par “*a universal expansion of credit, common to the entire gold-using world*” (Hawtrey, 1919a, p. 89). Ainsi, la Banque d'Angleterre a une influence décisive sur les cycles économiques mondiaux via sa politique du taux d'escompte, influençant directement la liquidité du marché monétaire britannique, ainsi que les marchés monétaires des pays périphériques sous le régime d'étalon-or.

À partir de cette analyse du fonctionnement de l'étalon-or avant 1914, Hawtrey propose dans les années 1920 un retour à un étalon-or géré par les banques centrales des pays centres : la Grande Bretagne et les États-Unis. Comme le souligne Hawtrey :

It is still true that London predominates in the international credit system. But in one respect there has been a profound change. America is now equipped to play a part. (Hawtrey, 1929, p. 78)

Les taux d'escompte des banques centrales des deux pays sont directeurs pour le système financier international et la gestion des cycles mondiaux passe par une politique monétaire décidée conjointement. En sus de cette coopération internationale, Hawtrey propose l'instauration de l'étalon de change-or dans les pays qui ne sont pas les centres financiers internationaux. Ce système monétaire flexibilise l'offre de monnaie et permet aux pays de détenir des réserves de changes au lieu de réserves métalliques afin de stabiliser les taux de change. De cette manière, le retour à l'étalon-or international dans les années 1920

était un moyen d'éviter une course effrénée des pays pour la reconstitution de leurs réserves métalliques, ce qui aurait pesé sur la déflation mondiale. Ainsi, nous montrons que la proposition de Hawtrey d'instaurer un étalon de change-or à Gênes en 1922 est un moyen d'institutionnaliser l'asymétrie qui prévaut entre les deux centres financiers internationaux et les pays périphériques, tout en stabilisant le système monétaire international via une coopération entre la Banque d'Angleterre et la Fed.

Le chapitre 2 – *Central banking under the gold standard: Rist versus Hawtrey on the Bank of France's policy from 1928 to 1931*, co-écrit avec Lucy Brillant – analyse le débat entre Charles Rist, sous-Gouverneur de la Banque de France (1926-1928) et Hawtrey à propos de la politique de la Banque de France entre 1928 et 1931. Ces deux économistes, d'envergure dans leur pays respectif, ont discuté la responsabilité de la Banque de France dans l'aggravation de la grande dépression suite à l'accumulation et à la stérilisation de l'or entre 1928 et 1931. Hawtrey a désapprouvé cette politique, considérant que la France ne respectait pas les accords de Gênes selon lesquels les pays devaient adopter l'étalon de change-or pour ne pas faire pression sur les réserves métalliques des banques centrales des pays centres. Rist considérait que la banque centrale française avait respecté les « règles du jeu » de l'étalon-or puisque les entrées d'or n'étaient que le résultat d'une hausse du taux de change du franc au point d'or. De plus, la conversion des balances sterling en or faisait suite à l'engagement pris par la Banque de France de détenir au moins 35% de ses engagements à vue en or. Ce débat entre les deux auteurs sur les conditions dans lesquelles une banque centrale devait intervenir révèle une profonde divergence de pensée, notamment sur le rôle de la politique monétaire dans le cadre de l'étalon-or. Alors que Hawtrey pensait que, dans un système où les flux de paiements internationaux transitent dans un seul grand centre, les banques centrales devaient mener des politiques monétaires discrétionnaires, Rist était en faveur d'une règle « automatique » de taux d'escompte dont la variation dépendrait de l'état des réserves (Rist, 1927). Ce chapitre fournit un éclairage théorique sur les raisons pour lesquelles la coopération entre les banques centrales a échoué après les accords de Gênes de 1922, conduisant à l'effondrement de l'étalon-or en 1931.

Les économistes ont souligné la responsabilité de la Banque de France dans l'échec du rétablissement du système de l'étalon-or tel qu'il a été défendu par Hawtrey à Gênes

(Eichengreen et Temin, 2000 ; Douglas Irwin, 2010.). Entre 1920 et 1931, Nicolas Barbaroux note que le stock d'or de la Banque de France a augmenté de 230% (Barbaroux, 2013, p. 106). Irwin montre que le ratio stock d'or/dépôts+billets était de 35% en 1928, 40% en 1929, 50% en 1930 et a atteint 80% en 1932 (Irwin, 2010, p. 13). Selon Rist, l'accumulation de l'or par la Banque de France n'est que le résultat des arbitrages sur le marché des changes. Il décrit parfaitement sa vision de l'ajustement :

Quand les changes sont favorables à Paris et que le point d'importation de l'or est atteint, l'or en quittant Londres ou New-York sous l'action des arbitragistes réduit la base du crédit à Londres et l'élargit à Paris. De là une hausse de l'intérêt à court terme à Londres, accompagnée d'une baisse de ce même taux à Paris. La rémunération supérieure de Londres exerce une attraction énergique sur les capitaux à court terme parisiens et tend par la suite à renverser le courant des capitaux d'une de ces places vers l'autre. (Rist, 1928, pp. 100-1)

Cette vision symétrique de l'ajustement est parachevée par une conception d'une politique monétaire non-discrétionnaire :

Tout l'effort de la politique monétaire française est de revenir vers des conditions normales qui permettant de revenir au jeu automatique des taux d'intérêt et des mouvements d'or. (Rist, 1927, souligné dans le texte)

Ainsi, Rist justifie la politique de la Banque de France à la fin des années 1920 en affirmant que :

En fait, les circonstances, depuis un an, c'est-à-dire depuis l'ouverture de la crise de New York, ont été telles qu'au lieu de sorties d'or, ce sont des entrées qui se sont produites. Mais ici la Banque est restée passive. Les importations ont eu lieu sous la seule action de l'arbitrage (Rist, 1930, p. 115)

Notons que Rist discute de la politique monétaire dans le cadre théorique classique même s'il reconnaît que le déficit extérieur peut être causé par des forces réelles. Malgré tout, Rist maintient qu'une sortie d'or doit s'accompagner d'une politique monétaire restrictive. Ainsi, Rist et Hawtrey ne peuvent s'accorder sur la façon dont la Banque de France a mené sa politique monétaire puisque leurs théories de l'étalon-or divergent. Hawtrey défend l'intervention des banques centrales sur le marché des changes à l'aide des réserves en devises : l'objectif est d'éviter les mouvements d'or entre les pays et d'accroître

les liquidités internationales afin de ne pas peser à la baisse sur les prix mondiaux. Au contraire, Rist soutient que la politique monétaire dépend de l'état des réserves métalliques de la Banque de France et expliquait donc la conversion des balances sterling en or. La déflation mondiale n'est pas problématique puisque les prix mondiaux doivent s'ajuster à la quantité d'or censée faire circuler les biens. Par ailleurs, Rist est reconnu pour avoir inspiré la politique de stabilisation du franc de 1926-1928 qui prévoyait un retour à un étalon-or pièce et non un étalon de change-or (Antoine Autier, 2010). Ce débat entre les deux auteurs au cours des années 1930 illustre les approches divergentes des économistes et des banquiers centraux sur le fonctionnement de l'étalon-or. Il révèle que le manque de coopération entre la Banque de France et la Banque d'Angleterre s'illustre par la divergence théorique de l'étalon-or, incarnée par deux économistes influents de la période. Ce chapitre apporte une perspective historique aux théories de Hawtrey et de Rist.

Le chapitre 3 – *Reforming the International Monetary System in the 1930s: A study of White's Monetary Thought* – étudie la pensée monétaire de White ainsi que sa première proposition d'un retour à l'étalon-or international dans les années 1930. White est connu, avec John Maynard Keynes, pour être l'un des architectes du système de Bretton Woods. Souvent dépeint comme un économiste orthodoxe se focalisant sur la stabilité monétaire, ce chapitre propose de prendre le contrepied de l'approche standard qui vise à comparer White à Keynes. En effet, l'étude des archives de White à Princeton ainsi qu'au Trésor Américain nous a permis d'approfondir ses critiques de la théorie de l'étalon-or ainsi que sa volonté de réformer le système monétaire national et international pour donner plus de marges de manœuvres aux politiques économiques nationales. Dans son rapport, *Selection of a Monetary Standard for the United States*, rendu à Jacob Viner en Septembre 1934 – l'année où White est entré au Trésor américain – White avance une proposition claire de réforme du système monétaire international, fondée sur un retour à l'étalon-or et sur une coopération accrue entre les deux pays centres : les États-Unis et la Grande Bretagne. Comme le souligne White :

If this or the next administration insists upon returning to the gold standard, there is assuredly no good reason why it must return to the old orthodox variety that prevailed before 1933. Improvements are possible. (White, 1934, p. 319)

White proposa l'établissement d'un « *managed currency standard* » (1934, p. 245) c'est à dire un étalon-or lingot (comme Hawtrey le proposait pour la Grande Bretagne au début des années 1920) avec la possibilité de modifier, en cas de fortes perturbations sur le marché des changes, le poids du dollar en or. Ce système de changes fixes mais ajustables annonçait ce qui a été instauré à Bretton Woods en 1944. Loin d'adhérer à l'orthodoxie monétaire classique, White avait déjà critiqué ce cadre théorique tel qu'il avait été reformulé par Frank W. Taussig, son directeur de recherche à Harvard. Dans sa thèse soutenue en 1930, White contestait le caractère automatique de l'ajustement de la balance des paiements pour la France entre 1880 et 1913. Analysant les mouvements de capitaux longs entre la France et l'étranger, White expliquait que l'équilibre extérieur pouvait être rétabli sans mouvements d'or ni de prix mais via la variation du revenu. Préfigurant l'approche par l'absorption, White n'est pas parvenu à démontrer son intuition étant donné la qualité des données statistiques françaises. Malgré tout, il a analysé la politique de la Banque de France sur la période, mettant en doute la séquence des ajustements présentée par la théorie classique. Loin d'être passive, la Banque de France mettait en œuvre régulièrement des politiques de prime sur l'or pour contrer les mouvements d'or et éviter de modifier son taux d'escompte.

Cette investigation de la pensée de White dans les années 1930 met en lumière les influences de Taussig sur l'analyse du mécanisme d'ajustement de la balance des paiements dans un système d'étalon-or international, et de Lauchlin B. Currie sur la politique monétaire que doit mener la banque centrale pour stabiliser le niveau général des prix et lisser les cycles⁷ : une telle politique repose sur la gestion de la masse monétaire via des politiques d'open-market et de variation des réserves obligatoires. Hormis ces fondements théoriques souvent sous-évalués par la littérature secondaire, White avait une expérience pratique des questions monétaires qui explique son ascension au sein du Trésor américain dans les années 1930. En effet, à partir de 1935, White a participé à de nombreuses missions en Europe en tant que représentant du Trésor pour tenter de rétablir une forme de coopération entre la Grande-Bretagne et les États-Unis (White, 1935c). Ces rencontres

⁷ Notons que Currie a été directement influencé par la théorie des cycles monétaire de Hawtrey (Laidler 1993 et 1999, Laidler et Sandilands, 2002a). En effet, Currie fut l'assistant de Hawtrey lorsque ce dernier était professeur invité à l'université de Harvard en 1928-1929. Young, alors directeur de thèse de Currie, était imprégné de la théorie de Hawtrey. La thèse de Currie, publiée en 1934, présente des fondements théoriques similaires à ceux de Hawtrey, notamment le chapitre 5 (Currie, 1934, p. 47).

ont abouti à l'Accord Tripartite signé en 1936 par les gouvernements américain, britannique et français. Cet accord, qui consistait à stabiliser les taux de change des trois devises via une coopération entre autorités monétaires, a été une percée dans les politiques de dévaluations compétitives et protectionnistes, caractéristiques des années 1930. Cette expérience a certainement influencé White lorsqu'il a commencé à rédiger son plan en 1942 en vue des accords de Bretton Woods.

Ainsi, bien avant la parution de la *Théorie Générale* (1936) et des discussions avec les Britanniques en vue de la conférence de Bretton Woods, White apparaît comme un économiste plutôt hétérodoxe – critique de l'étalon-or et partisan de politiques contracycliques – et innovant – proposition de réforme du système monétaire international caractérisée par un système de changes fixes mais ajustables et une coopération accrue entre la Banque d'Angleterre et la Fed. Ce chapitre apporte un éclairage sur l'ascension de White au sein du Trésor américain qui va le conduire à diriger la délégation américaine à Bretton Woods.

Le chapitre 4 – *Triffin Dilemma and Regional Monetary Approach: An Appraisal* – aborde la critique de Triffin concernant le système de Bretton Woods ainsi que ses propositions pour le réformer au niveau régional dans les années 1940 et 1950. Triffin est connu pour avoir formulé le dilemme qui porte son nom dans son ouvrage de 1960, *L'or et la crise du dollar*. Dans le système d'étalon de change-or tel qu'il a été instauré à Bretton Woods, le pays à la monnaie de réserve – les États-Unis – fait face à un dilemme : soit il laisse se détériorer le rapport entre son encaisse or et les balances dollars détenues par les étrangers, entraînant à terme une baisse de la confiance des agents économiques dans le dollar comme monnaie internationale; soit il limite l'expansion des balances dollars détenues par les agents extérieurs, en réduisant le déficit de sa balance des paiements, afin d'éviter une crise de confiance mais produisant à l'inverse une contraction de la liquidité internationale, du commerce international et pouvant conduire à un biais déflationniste. Dans cette partie, nous essayons de montrer que la formulation du dilemme de Triffin n'est pas simplement le résultat de l'importance grandissante qu'a eu le dollar comme monnaie internationale de réserve à partir de la fin des années 1950. Nous montrons que les premières critiques du système de Bretton Woods par Triffin ont été formulées dès 1947 lorsque ce dernier travaillait au FMI : ses premières propositions de réforme du système

monétaire au niveau régional apparaissaient a posteriori comme un moyen de sortir du dilemme.

Dans ses premiers travaux portant sur l'analyse de l'étalon-or international avant 1914, Triffin exposait sa vision asymétrique, et en cela, rejoignait la position de Hawtrey :

The most cursory examination of statistical data clearly shows that many of the most spectacular disequilibria in balance of payments are *worldwide* in scope, and must be traced to cyclical fluctuations of an international character rather than to national price and cost maladjustments. (Italiques dans le texte, Triffin, 1947a, pp. 55-6)

Nous considérons que cette approche centre-périphérie, qu'il développe dans les années 1930 à l'Université Catholique de Louvain, va structurer ses plans de réforme. Convaincu que l'asymétrie est génératrice d'instabilité, Triffin étaye ses propositions dans le but de réduire l'asymétrie. Fondant son analyse sur l'Union de Compensation de Keynes (1943), Triffin proposa une union de compensation pour les pays européens afin de sortir de la situation de rareté du dollar liée notamment au déficit structurel de la balance des paiements européenne vis-à-vis des États-Unis. Les travaux de Triffin sont à replacer dans la période de reconstruction de l'Europe après 1945. Pragmatique, Triffin développe son plan pour répondre à un problème concret : mettre en place un système de paiements multilatéral en Europe pour dynamiser le commerce international. Son plan a eu un écho important puisque Triffin est considéré comme l'un des architectes de l'Union Européenne des Paiements (1950) qui est une union de compensation entre les pays européens. La réussite de cette nouvelle institution, créée pour pallier à l'incapacité du système de Bretton Woods à restaurer le multilatéralisme, conduit Triffin à approfondir la logique de l'intégration régionale et à développer sa fameuse réforme en 1960, fondée sur la création d'une monnaie supranationale. Dans ce chapitre, notre analyse se fait à un double niveau. Le premier niveau montre que seulement trois ans après les accords de Bretton Woods, le débat sur la nature du système monétaire international se poursuit. Le second niveau montre comment Triffin a étayé ses réflexions de réforme du système monétaire régional tout au long des années 1950 pour proposer un plan de réforme du système monétaire international dans son ouvrage de 1960.

Chapter 1 The Structural Asymmetry of the International Gold Standard in Hawtrey's Works

Abstract

As the British Treasury's only economist during the interwar period, Ralph George Hawtrey proposed, in the 1920s, the general adoption of the gold exchange standard coupled with cooperation between international financial centers. Hawtrey's analysis highlighted the role of monetary factors to explain business cycles. By theorizing on the operation of the gold standard, Hawtrey's argument is that credit is inherently unstable and that monetary policy is the only means to control credit's instability. This chapter investigates Hawtrey's theory and influence during the ongoing debate on the return to gold in and out Great Britain in the 1920s.

“If two countries trading together financed the whole of their mutual trade with bills of exchange, drawn by exporters on importers, the natural course would be for each to finance its own imports. (...) In actual practice different countries vary greatly in the extent to which they finance their foreign trade. One may finance practically the whole of its foreign trade and some even of the trade between other countries in which it has otherwise no interest whatever. This is the position of England now” (Hawtrey, 1919a, p. 103)

1.1 Introduction

This chapter aims at studying Ralph George Hawtrey's influence and contribution to the debate on the return to the gold standard after the World War I in Great Britain and in Europe. Hawtrey was a particular figure in Great Britain during the inter-war period since he was both a civil servant at the British Treasury – appointed Director of Financial Enquiries in 1919¹ – and a renowned economist whose monetary theory, taught at Harvard University during more than a decade, influenced British officials from the Treasury and the Bank of England. Paradoxically, Hawtrey did not play a part in the two British official committees held in 1918 – Cunliffe Committee – and in 1924 – Chamberlain-Bradbury Committee – which advocated the return to gold coin standard at the pre-war parity, while Arthur C. Pigou, as member, or John M. Keynes, as witness, did. Nevertheless, not only did Hawtrey participate indirectly in the debate in Great Britain when Winston Churchill, the Chancellor of the Exchequer, asked him for a memorandum on that topic (Donald E. Moggridge, 1972, p. 71) but he was also the author of the 1922 Genoa resolutions which established the return to the gold exchange standard (thereafter GES) for European countries. Even if Hawtrey agreed with the two Committees recommendations consisting in returning to the gold payments at the pre-war parity, he did not share the official view of the pre-war balance of payments adjustment mechanism under the gold standard. Departed from the classical view lying on symmetrical gold flows between countries, Hawtrey developed an original approach of international gold standard operation highlighting the hierarchal structure of international finance, centralized around the creditor position of Great Britain, and the asymmetric nature of the international gold standard. This chapter points out that Hawtrey did not make a separation between the return to gold in Great Britain and the reform of the international monetary system.

Hawtrey never ceased to argue that “the trade cycle is a purely monetary phenomenon” (1922, p. 298). According to David Laidler, (1991, p. 101), in the Cambridge tradition, “it was Ralph Hawtrey (...) who, in pre-World War I Britain, produced a

¹ This Branch had been established as a special branch of the Treasury in 1915 "to collect information upon all subjects of general financial interest and to prepare reports from time to time both on its own initiative and also upon any question that could be specifically referred to it by the Chancellor of the Exchequer" (Robert D.C. Black, 1978, p. 367). This particular appointment seemed to give to Hawtrey a large room for developing his theories and prescriptions.

complete and purely monetary theory of the cycle”. Hawtrey stated that the variation in credit, which is inherently unstable, tended to intensify economic fluctuations. Under the gold coin standard, the inelasticity of the money supply limited the credit's inherent instability but could result in liquidity and economic crises. This theory was well analyzed for a closed economy in the secondary literature by Jérôme de Boyer des Roches (1985), Patrick Deutscher (1990) and Laidler (1991 and 1993). In a monetary system based on a metallic currency, the outflow of the currency reserves from the banking system was a late signal of the credit's instability (Deutscher, 1990, p. 34). This signal required that the central bank, acting as the lender of last resort, had to control the creation of credit through the use of the discount rate and open market operations (de Boyer des Roches and Ricardo Solis Rosales, 2011, p. 189). Therefore, Hawtrey was an adherent of a permanent discretionary intervention of a central bank to stabilize macroeconomic aggregates.

But Hawtrey's monetary theory and reform proposal were not limited to a closed economy. Indeed, from the outset, his analysis had a huge international dimension highlighting that “*the nineteenth century credit system is not to be interpreted as consisting of a number of countries each exercising independent control over credit within its own limits, and being led by the influence of gold movements to accommodate its credit policy to that of the others. It is rather to be regarded as a centralized system responding to a leader. The center was London and the leader the Bank of England*” (our italics, 1929, p. 70). The recognition of this asymmetry, arising out of the leading position of London as an international financial center, alters the understanding of the balance of payments adjustment. In order to respond to domestic goals (stabilizing domestic prices and make money market more or less liquid), the Bank of England (thereafter BoE) conducted monetary policy to control domestic credit. But changes in this policy impacted the financial conditions of foreign countries as far as a part of their bills were contracted in London in order to finance international trade. Owing to this asymmetry, gold flows between countries which were supposed to stem the instability of credit and restore the balance of payments equilibrium did not occur. Quite the reverse, the British expansion of credit resulted in “a universal expansion of credit, common to the entire gold-using world” (Hawtrey, 1919a, p. 89). Because the monetary policy of the BoE determined international credit conditions and therefore short-term capital flows, Hawtrey advocated for a well-defined monetary policy

that aimed at managing the international monetary system. This analysis led Hawtrey to call for the establishment of the GES for peripheral countries during the 1922 Genoa conference: these countries could hold leading foreign currencies redeemable in gold to stabilize their exchange rates without gold reserves. In times of worldwide gold scarcity, his plan aimed at managing the asymmetry of the gold standard that resulted from the leading positions of Great Britain and the United States.

The asymmetric analysis was not unusual before 1914. In *Indian Currency and Finance* (1913, thereafter ICF), dealing with the Indian monetary issue, Keynes was the first to foster the multilateral development of the GES. However, contrary to Hawtrey, Keynes saw the asymmetry as the result of the British political domination of India. He focused his analysis on the role of long-term capital flows between the mother country and the colony. In light of the GES debate, Hawtrey's international monetary theory and his recommendation to promote the GES were innovative in the 1920s. Hawtrey's proposals for a managed international gold standard made consensus between British officials since they were incorporated in the resolutions of the 1922 international financial Genoa Conference (Denis P. O'Brien and John R. Presley, 1981, pp. 219-20). According to Susan Howson (1975), Hawtrey's proposals were effectively approved by Basil Blackett – Controller of Finance at the British Treasury between 1919 and 1922 – and Montagu Norman – then Governor of the Bank of England – and Hawtrey was sent to the Genoa Conference in order to convince foreign delegations of the merits of the British plan. Hawtrey's theory and prescriptions deserve more attention since the restoration of the international gold standard in the 1920s resulted rather from Hawtrey's scheme than from Keynes or Pigou's one. Our analysis bridges the gap between Hawtrey's theory in closed economy and his theory in open economy. Since Hawtrey was not only a theorist but also an economic policy designer, this chapter emphasizes how Hawtrey's monetary theory shaped his reform proposals of the 1920s.

On the basis of the 1913 ICF, the **Section 1.2** deals with Keynes' founding principles of the asymmetric analysis in the advocacy of the GES. The **Section 1.3** is devoted to examining Hawtrey's international monetary theory expounded in the first and third edition of his *Currency and Credit* (1919 and 1928). In the light of the classical and “idyllic picture” (W.B. Reddaway, 1970, p. 18) of the pre-war gold standard operation introduced by the

1918 Cunliffe Report, we underline the originality of Hawtrey's monetary analysis considering the international financial system's structure. The **Section 1.4** sheds light on the role of institutions that Hawtrey presented during the 1922 Genoa Conference and analyzed in his 1922 article on that topic, *the Gold Standard in Theory and Practice* (1927) and *the Art of Central Banking* (1932). In the context of the competition between Great Britain and the United States to be the international financial center, the GES and the international lender of last resort played a crucial role in ensuring the proper functioning of the new international monetary system. We situate Hawtrey's analysis in that of his contemporaries like Keynes and Pigou who also discussed the related question of whether Great Britain should return to the gold standard. The **Section 1.5** concludes.

1.2 First analysis of the asymmetry: Keynes' *Indian Currency and Finance* (1913)

Hawtrey highlighted the role of short-term capital flows between financial centers and peripheral countries as part of the international trade finance to explain the operation of the international gold standard. Consequently, in the 1920s, at a time of gold scarcity, he quite naturally advocated for the establishment of the GES in peripheral countries to stabilize exchange rates without gold flows. But this view was not natural in the light of GES experiences. In its early stages, the GES took place officially in the British Empire, with India being the best-known example, and in the Philippines under the American political influence. As a civil servant in the India Office between 1906 and 1908, Keynes analyzed the progressive introduction of the GES in the British colony. From the outset, Keynes followed the American experience in Manila led by Edwin W. Kemmerer who implemented the GES. In his ICF, Keynes reminded that "in dealing with her dependencies, she (the United States) has herself imitated, almost slavishly, India" (1913, p. 19). Indeed, Alexander M. Lindsay, who was the deputy secretary and treasurer of the Bank of Bengal, proposed the first GES scheme. In 1876 and 1878, and again in 1892 and 1898, he proposed a more economical monetary system suited to India so as to stabilize the sterling exchange of the rupee without gold flows. Kemmerer closely analyzed the solutions proposed by Lindsay for the establishment of the GES in the Philippines in 1903 (Rebeca Gomez Betancourt, 2008, p. 226). The objective of the American plan was to promote a

“gold standard without a gold currency” (Kemmerer, 1905, p. 590) and to substitute foreign exchange reserves variations for gold flows to correct balance of payments disequilibria and to stabilize the Filipino exchange rate in US dollars. The establishment of a fund, known as the Gold Standard Fund, aimed at maintaining parity by providing funds in dollars borrowed from American banks. This Fund was able to issue drafts that could be bought or sold by the gold importers and exporters when the exchange rate reached the gold points. For example, these drafts entitled them to obtain gold in New York when the peso exchange rate in Manila rose to the gold export point. As explained by Kemmerer in 1933:

The object of the sale of drafts was to provide a means for the maintenance of the parity, and to that end of automatically adjusting the currency supply to the varying's demand of trade, without the necessity of introducing gold coins into circulation. (Kemmerer, 1933, p. 313)

This form of GES, managed by the Filipino government, ensured the stability of foreign exchange and was guaranteed by the US Treasury. The term “gold exchange standard” had already been used by Kemmerer to describe the monetary reforms in the Philippines and in the Straits Settlements (Kemmerer, 1906, p. 678). So, Keynes' study of India fell into the tradition that advocated for the establishment of the GES in keeping with the political asymmetry between the mother country and the colony.

However, the British monetary experience in India that led to the setting up of the GES was the result of the imperial tax system. The GES emerged from the necessity for the colony to pay a kind of imperial annual tax to Great Britain, called the Home Charges. This sum, corresponding to the payment of interest on the Indian public debt, pensions and expenditures of the Indian Office, had to be remitted in sterling while it was raised in rupees. Great Britain was under the gold standard and India under a silver standard: in the absence of a common standard, the stability of the sterling exchange rate of the rupee was dependent on the stability of the gold value of the silver. In the aftermath of the abandonment of the bimetallism in France and in the United States in the 1870s, the gold value of silver went through violent fluctuations that led to instability in the sterling value of the rupee. The council bills system, introduced in 1861, provided a convenient mechanism both to ensure the remittances made by the Indian government to Great

Britain and to stabilize *de facto* the Indian currency on the foreign exchange market. So the Indian stabilization policy of the sterling exchange rate of the rupee was “facilitated by the commanding influence which the system of council bills gives it over the exchange market” (Keynes, 1913, p. 23).

The management of the Indian system was the responsibility of the secretary of state for India in London. To meet the Home Charges, the secretary of state periodically sold council bills, to be remitted in rupees, for foreign exchange payable in sterling in London. In other words, this system consisted in supplying rupees in exchange for sterling. By offsetting the receipts and payments without the transshipment of gold between the two countries, the council bills enabled the acquisition of sterling by the Indian government to meet the financial commitment to the motherland and provided “a cheaper and safer means of payments” (Carlo Cristiano, 2009, p. 306).

This value is remitted to England by selling for sterling in London bills which can be cashed in rupees in Calcutta. Thus the government of India pays out rupees in Calcutta when the bills are presented, and the Secretary of State's balances at the Bank of England are swelled by a corresponding amount. (Keynes, 1913, p. 72)

Through this arrangement, the remittance of funds was managed by the government, embodied by Lionel Abrahams, the India Office's Financial Secretary and Keynes' mentor on Indian matters (Anand Chandavarkar, 1989, p. 25). After the failure of both the Herschell Committee in 1892–1893 and the Fowler Committee in 1898 to set up a gold standard with a gold currency in India, the system evolved toward a GES. Indeed, before 1900, the council bills were only used to meet the Home Charges. After 1900, “(...) the functions of the council bills system have been enlarged, and it has now become a very important part of the general mechanism for the maintenance of the gold exchange standard” (Keynes, 1913, p. 75). This system enabled the Indian government to keep the sterling exchange of the rupee at the ratio of 15 Rs. for £1. The management of the council bills system bound to the GES was an important issue because India had a peculiar role in the British Empire. Not only did India have a large trade surplus with the gold standard countries but the colony represented an outlet market for British savings. The long-term capital flows from Great Britain to India appeared to be a disrupting factor on the foreign

exchange market. Before 1907, India's favorable balance of trade and the continuous inflow of capital tended to raise the rupee's exchange rate. Actually, the demand for rupees was structurally higher than their supply, despite the value of the Home Charges. During the crisis of 1907–1908, India's balance of trade surplus plummeted and the rupee's exchange rate fell (see Cristiano, 2015). So the council bills system ensured a limit to the variation in the rupee's exchange rate between the “artificial” gold points. This financial infrastructure, which was at the core of the GES's operation, provided stability to the rupee's exchange rate, especially as it reduced the exchange risk connected with the foreign investment of British investors (Cristiano, 2009, p. 320). According to Cristiano (2009, p. 317), this monetary arrangement was “imposed by the increasing capital movements in a Post-Ricardian world and by the financial circumstances of the indebted countries in particular”.

The political and economic relations between Great Britain, as a creditor country, and India, as a colony, were structurally asymmetric. The features of this asymmetry were twofold: India's financial commitments *vis-à-vis* London, and the transfers of savings between a core country, here Great Britain, and a peripheral one, as India. In that respect, Keynes fostered the multilateral development of the GES in 1913 as an effective tool to stabilize the exchange rates without gold flows.

1.3 The structural asymmetry in Hawtrey's monetary analysis

1.3.1 From a closed to an open economy: Hawtrey's analysis of the classical adjustment mechanism

Hawtrey argued that credit was inherently unstable. The inherent instability of credit emerges from the relation between the bankers who seek to increase their profits by granting more loans and traders who finance their stocks with credit. According to Hawtrey:

(...) there is an inherent tendency on the part of the traders to borrow more and more and of bankers to lend more and more. This tendency works just as freely as if the stabilising influence of the gold standard were not present, until the demand for cash for circulation occasions an actual shortage in the bank's gold reserves. (Hawtrey, 1919a, p. 30)

The tardy adjustment of the demand for currency in case of credit expansion misleads the bankers on the proper banking policy to conduct. According to Hawtrey:

And even when this happens [the demand for cash] the gold standard does not remedy the situation *automatically*, it can only act as *a warning* to the bankers that they must take some positive action to restrict credit. (our italics, *ibid*)

Therefore, in closed economy, the minimum ratio of gold reserves to notes and deposits did not protect against the over expansion of the currency and thus inflation. In the absence of an automatic stabilizer, the central bank had to pursue a counter-cyclical monetary policy by acting as the lender of last resort in a permanent way (de Boyer des Roches and Solis Rosales, 2011, p. 189) in order to avoid a liquidity crisis and to stabilize the purchasing power of the currency. According to Hawtrey, the central bank has to follow an index number of prices².

In an open economy, the operation of the gold standard should theoretically correct the late signal of instability of credit. Indeed, according to the gold points mechanism³, credit expansion gives rise to an increase in demand for domestic and foreign products, a rise in domestic prices which lead ultimately to a balance of trade deficit and a fall in the exchange rate until the gold export point (Hawtrey, 1919a, pp. 86-7). In that framework, gold export works as a safeguard against the instability of credit. According to Hawtrey, “far from increasing the danger of a banking collapse, this foreign demand for gold facilitates the task of the bankers, for it gives them an earlier warning” (*ibid*, p. 87). The external gold drain compelled commercial banks to raise their short-term interest rates to

² The gold standard did not provide price level stability because the drain of gold from banking reserves was too late a signal of the credit's instability. The price index offsets this gap by providing an early signal for the need to change the monetary policy. However, in his published writings, Hawtrey never referred to neither official British price index (the Board of Trade's wholesale price index and the Ministry of Labour's working class cost of living index, which compiled domestic and international prices).

³ Given that gold standard countries fixed the values of their currencies in terms of gold, the exchange rates fluctuate in a range around the par of exchange, which means the relative amounts of pure metal contained in two units of value, plus the cost of transferring gold from one location to another

contract credit, adjusting their assets to their gold reserves. Hawtrey even wrote that the fall in the exchange rate, and the potential gold export, could be interpreted as a sufficient signal to contract credit:

The banking community in any highly-developed country is afraid of a loss of gold, and any seriously unfavorable movement of the exchanges (...) is the signal for a prompt contraction of credit. (Hawtrey, 1919a, p. 88)

This view is based on the idea that gold flows constituted the main force to restore balance of payments equilibrium. That framework and reasoning were introduced by the Cunliffe Committee in the First Interim Report (1918). In case of credit expansion which provokes a balance of trade deficit, the Cunliffe Committee's description of the adjustment mechanism is the following:

When the exchanges were favourable, gold flowed freely into this country and an increase of legal tender money accompanied the development of trade. When the balance of trade was unfavourable and the exchanges were adverse, it became profitable to export gold. (...) The raising of the discount rate (...) led to a general rise of interest rates and a restriction of credit. The consequent slackening of employment also diminished the demand for consumable goods, while holders of stocks of commodities (...) tended to press their goods on a weak market. The result was a decline in general prices in the home market which, by checking imports and stimulating exports, corrected the adverse trade balances which was the primary cause of the difficulty. (Cunliffe Report, 1918, p. 171)

In the short run, the Cunliffe Committee reminded that the rise of the discount rate could attract foreign short-term capital flows and check the gold outflow. This adjustment mechanism relies on market forces supposed to be automatic and leaves no room to management by central bank. Monetary authorities have to follow the rules of the game policies by raising the discount rate in case of adverse balance of payments and the reverse in the opposite case. In this symmetric operation of the gold standard, the depreciation of the foreign exchange rate could be seen as an early signal of the credit's instability, encouraging the central bank to raise the interest rate.

1.3.2 Role of London as an international financial center: the asymmetric case

Actually, Hawtrey pointed out that the international gold standard was not symmetrical, refuting the automatic adjustment mechanism just described. Because international trade and finance had played an important role in the British economy since the first industrial revolution, in London a highly developed system of specialized banking institutions had grown to deal with international transactions. International contracts were denominated in sterling, and payments occurred through the British banking system even though the international goods were not directed towards Great Britain. Foreign banks owned subsidiaries in London that made the country the center of the world's gold, commodities, and capital markets. The domination of the sterling as a medium of international exchange was the main feature of the asymmetry.

Therefore, any instability in British credit became international. To illustrate the mechanism in the symmetric case, let us take an example of an American trader who wanted to import French goods. To finance the shipment of goods from France to the United States, the French exporter – the drawer – issued a bill of exchange against the American importer – the drawee – payable at some future date, say three months. The transaction went through the banks of both parties. The bank of the American importer accepted the bill and the American trader remitted the sum to the French producer through his bank at maturity. In other words, a deposit in dollar was traded for a deposit in francs. In the international trade, demand and supply on the foreign exchange market determines the exchange rates of currencies. The exchange rate was bound within the gold points and working as a signal of credit's instability.

In the asymmetric case, the international traders held stocks financed by credit balances in sterling accounts that increased their short-term indebtedness on the British credit market.

In the finance of international trade the quality of credit is very important. Traders prefer bills drawn on institutions which are not merely of sound but unquestionable credit. (...) Consequently, in a country financially weak, importers may pay, as exporters are paid, with bills upon a foreign centre. (Hawtrey, 1919a, p. 104)

The American trader could pay for the French imported goods with a bill of exchange drawn on a bank in London. The bulk of the trade between foreign countries was financed by the bills of exchange in sterling, which were discounted in London and at maturity were payable in British currency. In other words, because sterling denominated bills financed international trade, the exchange rate variation did not constitute an early warning of the credit's instability. The circulation of bank deposits, which were supposed to reflect the remittances for the international trade, did not impact the foreign exchange market. Actually, there was a sustained demand for sterling for the need of international trade.

The essential characteristic is that even though the bills may be drawn by foreigners on foreigners, yet they are drawn on the center and payable in its currency. As traders in the more circumscribed area of a single country pay one another in cheques which are passed through a single clearing-house, so *international traders pay one another in bills which are drawn on a single financial centre*. Thus *London is often called the clearing-house of the world's trade* (our italics, Hawtrey, 1919a, p. 106)

In the absence of the automatic stabilizer in an open economy, the British credit boom resulted in a widespread expansion of the gold standard countries. As noted by Hawtrey (1919a, p. 113): a “country (...) whose foreign trade is all or nearly all financed abroad has (...) less power of stimulating exports and repelling imports by means of a credit contraction”. In the third edition of *Currency and Credit* (1928), Hawtrey argued again that British credit conditions has a decisive influence on other gold standard countries:

When it [the financial center] inflicts a contraction of credit on the international merchants, it not only makes the restraint on its own producers more complete, but it extends the restraint in some degree to producers in other countries. The contraction of credit depresses world markets: producers everywhere find that demand flags and competing sales are hastened. World prices fall, or, in other words, foreign currencies appreciate. (Hawtrey, 1928, p. 139)

Finally, the degree of asymmetry in the international gold standard exercised a significant influence on the conduct of foreign monetary policies. Indeed, the BoE discount rate guided foreign discount rates. Let us suppose that the discount rate of the BoE is raised to contract British credit, “foreigners are immediately tempted to invest in [sterling] bills, in the assurance not only that they will be punctually met by the acceptors,

but that the *currency in which they are paid will be maintained at parity with gold* (our italics, Hawtrey, 1919a, p. 117). The capital outflow from other gold standard countries in direction to London tend to depreciate foreign currencies/sterling exchange rates and could provoke gold outflow if the exchange rate reaches the gold export point. According to Hawtrey:

It is for this reason that a rise in the London Bank rate is quickly accompanied by a rise in all other bank rates. Any money market which maintained too low a rate would quickly find the exchanges growing adverse owing to the desire of lenders to remit abroad. (Hawtrey, 1919a, p. 117)

According to Hawtrey, since the BoE's discount rate was key before 1914, British monetary authorities was able to manage the exchange rate impacting international short-term capital flows (Hawtrey, *ibid.*). On one side, an increase in the British discount rate resulted in international credit contraction, tending to reduce the demand for sterling on the foreign exchange market as part of international trade finance; but on the other side, this rise attracted foreign short-term capital flows in London, giving rise to a demand for sterling. To sum up, the mobility of international capital was seen as an effective adjustment mechanism before 1914 and short-term capital flows could be sufficient to keep the balance of payments equilibrium.

The pre-war international gold standard, structurally asymmetric, was stable insofar as the BoE used the bank rate to defend the sterling's convertibility. Short-term capital flows were characteristic of the asymmetry: the bills on London were used both to finance international trade and to invest foreign short-term funds. In this way, the effect of a variation in the BoE's discount rate hastened the adjustment of the balance of payments without any gold flows. Because Great Britain was a creditor country whose currency was "as good as gold", the variation in the foreign exchange rate did not provide an early signal of the instability of British credit.

1.4 The debate on the gold standard and Hawtrey's monetary reform

After World War I, the asymmetry evolved from a monocentric to a polycentric international monetary system. Faced with the erosion of Great Britain's financial

hegemony and with the growing development of the United States as an international financial center, Hawtrey advocated for the establishment of the GES at the Genoa conference in 1922. But the GES was only a tool to make the provision of international liquidity more elastic and to relieve the burden of balance of payments adjustment of debtor countries. The new asymmetry was to be institutionalized by the cooperation between Great Britain and the United States. Hawtrey's view were developed during the ongoing debate on the return to the gold standard in Great Britain. While Hawtrey supported the recommendations of the 1918 Cunliffe and 1924 Bradbury-Chamberlain Committees – the return to the gold standard at the pre-war parity – he advocated a managed gold bullion standard (thereafter GBS) for Great Britain. But this plan could not be divided from his international plan presented at Genoa. Analyzing Hawtrey's prescriptions, we show that Hawtrey's view was under underestimated and more influential than Pigou or Keynes' ones in the 1920s.

1.4.1 Hawtrey's advocacy for a managed gold standard

Despite the fact that Hawtrey was a middle-ranking official at the British Treasury, his analysis and prescriptions influenced British officials in the decision to return to the gold standard, both at the national and international level. After the World War I, the 1918 Cunliffe Committee advocated the necessity to return to the pre-war parity of £3 17sh. 10¹/₂p. for an ounce of gold (with a gold parity of the dollar of \$20.67 for an ounce of gold, the sterling/dollar exchange rate was 4.86). For the fifteen members of the Committee, the return to the gold coin standard, at the pre-war parity, was a means to solve British economic and monetary disturbances:

In our opinion, it is imperative that after the war the conditions necessary to the maintenance of an effective gold standard should be restored without delay. Unless the machinery which long experience has shown to be the only effective remedy for an adverse balance of trade and an undue growth of credit is once brought into play, there will be a grave danger of a progressive credit expansion which will result in a foreign drain of gold menacing the convertibility of our note issue and so jeopardizing the international trade position of the country (Cunliffe Report, 1918, p. 180)

Again, in 1924, the Bradbury-Chamberlain Committee followed the Cunliffe Report's recommendations even if it opened a discussion on the most suitable monetary system for Great Britain. Inviting witnesses to tackle this issue, members of the Chamberlain-Bradbury Committee considered three options (Nahid Aslanbeigui and Guy Oakes, 2015): a return to the gold standard at the old parity (in the line with the Cunliffe Report); the return to the gold standard at a devaluated parity; a managed currency system independent of gold. After the hearings of witnesses – Norman or Keynes for the most famous – the Committee issued a draft on 23 August 1924, written by Pigou, accepting that “as a practical present day policy for this country there is, in our opinion, no alternative comparable with return to the former gold parity of the sovereign” (*Committee on the Currency and Bank of England Note Issues, Second Draft of Report*, in Moggridge, 1972, p. 49). According to W.B. Reddaway, the Bradbury-Chamberlain Committee was set up to implement the recommendations of the Cunliffe Committee and therefore “accept old dogmas without question” (1970, p. 24). As the sole academic in the two Committees, Pigou could easily spread his personal view on the return to the gold standard. Reddaway stated that “his view was decisive” (ibid, p. 17). The study of Pigou' analysis on war and finance by Rogério Arthmar and Michael McLure (2015) reinforces the argument whereby Pigou was attached to the return to the gold standard such as described in the Cunliffe Report. Pigou published in 1921 *The Political Economy of War* in which he supported without naming it the Cunliffe Report pointing out that “the volatility of the exchanges and the wide range of their fluctuations” is “the major obstacle to the revival of trade in Europe” (Arthmar and McLure, 2015, p. 18). Pigou did not reject the idea that public authorities could manage the foreign exchange rate but he feared the risk of misconduct. In that way, returning to the gold standard would avoid that this risk occurs. Even if the sterling/dollar exchange rate was at \$4.20 at that time – higher than the rate of \$3.40 in February 1920 (Moggridge, 1969, p. 16) but still far from the pre-war parity of \$4.86 – Pigou re-stated that Great Britain has to return to the gold payments at the old parity in time. According to Arthmar and McLure (ibid), in 1921, Pigou thought in the scenario in which the United States would continue to sterilize gold, that would make US prices stable. In this regard, if Great Britain would resurge the gold standard at old parity, it would require a sharp deflationist policy. According to Pigou, such policy would have to be progressive to avoid a deep contraction

of British activity that would lead to a sudden fall in profits and unemployment (see **Annexe 1 : Analyse du taux de change £/\$, 1919-1925** for a study of that period).

In the 1924 Bradbury-Chamberlain Committee's recommendations, even if the return to the old parity was a way to restore the prestige of sterling, the Committee asked for waiting the the autumn of 1925. This wait and see policy was explained by the evolution of US prices. Indeed, in February 1925, the sterling/dollar exchange rate rose to \$4.79 and the Committee hoped the exchange rate reached the parity of \$4.86. In that case, a return to the gold standard would need minor adjustments in the British economy and above all, would avoid a painful deflationist economic policy. According to the Committee draft written by Pigou:

As an increase in American prices was likely, the goal of the Bank of England should be price stability for the time being, particularly as the contingencies that might make stronger action necessary to preserve the exchange value of sterling. (Bradbury-Chamberlain Report, In Moggridge, 1972, p. 48)

The official view supported the return to the gold coin standard in Great Britain, at the pre-war parity, but left aside the international issue. On the contrary, Hawtrey always linked the national level to the international one when he questioned the return to gold. Even if Hawtrey did not take part in the Cunliffe and Bradbury-Chamberlain Committees, all the evidence suggests that his view and prescriptions played a crucial role at that time. Indeed, Hawtrey was a regular adviser of Basil Blackett and Otto Niemeyer, respectively Controllers of Finance from 1919 to 1922 and from 1922 and 1927⁴. Not only Blackett and Niemeyer asked for advices on economics matters to Hawtrey during that period but Norman, the Governor of the Bank of England, was used to meeting Hawtrey to discuss the conduct of the monetary policy (Clara Mattei, 2016, p. 8). Norman particularly agreed with Hawtrey's ideas.

As explained before, Hawtrey did not share the analysis of the pre-war operation of the international gold standard displayed in the Cunliffe Report but he agreed with the

⁴ According to George C. Peden (2000, p. 137 in Mattei, 2016, p. 6), the Controllers of Finance were more powerful than the Controller of Exchequer himself since they were financial experts and remained in the British Treasury while the latter did not. Moreover, the Controllers of Finance had a decisive influence on the Treasury policy since until 1921, the Treasury had the control of the Bank Rate (Howson, 1975, p. 10 in Mattei, 2016, 6fn).

recommendation of returning to gold. The return to the gold standard at the pre-war parity had to be the goal of the future policy so as to restore the prestige of the Sterling and of London as an international financial center. Moreover, in agreement with Pigou, Hawtrey thought that a fixed exchange rate system was better to reassure the financiers, traders and producers who were involved in international trade and financial transactions. But according to Hawtrey, the return to the gold coin standard such as wanted by the two Committees was fallacious since this monetary system did not allow the stability of the purchasing power of money. The argument of the late signal of the instability of credit led Hawtrey to advocate the GBS for Great Britain, explaining that “the possibility of maintaining a gold standard on an exchange basis, without the internal use of any currency except paper, is well understood” (Hawtrey, 1919a, p. 354). Later, in his 1927 *The Gold Standard in Theory and Practice*, Hawtrey will state that “If the entire needs of community for legal tender currency are met by paper money, together with subsidiary token coins, the gold reserve is required solely for the purpose of meeting an external demand” (Hawtrey, 1927, p. 96). According to Hawtrey, the essential element of his reform plan was to avoid huge fluctuations in external demand for gold, that is to say, gold flows between countries. This is the reason why Hawtrey shaped his plan for the international level.

In the line of the previous argument, Hawtrey advocated the establishment of the GES for central European countries like Austria, Hungary or Greece. This proposition aimed at stabilizing the world value of gold by avoiding the replenishment of the central banks' gold reserves⁵ for internal and external monetary circulation. This new European monetary order encouraged the central banks to substitute foreign exchanges for gold reserves. Because three quarters of the world's stock in gold was held in the United States, the monetary demand for gold to rebuild a gold currency would result in a rise in the world value of gold, that is to say a worldwide deflation⁶. In the line of his monetary theory, credit expansion gives rise to absorption of gold when it is used as currency or international reserve. According to Hawtrey (1922, p. 293) “If an undue demand for gold is to be

⁵ In proposing the GBS and the GES, Hawtrey's aim was the same: saving gold for monetary use and to supply an elastic currency. David Ricardo's argument for the establishment of the GBS was different (1816): this monetary system was an expedient to cope with bank runs. In case of the appreciation of the market price of the gold bullion, this monetary system prevents people from changing paper money into gold.

⁶ The recommendations tempted countries like France to hold reserve currencies but France refused. In fact, France held sterling and dollars until 1928.

avoided, we must have some method of economizing the use of gold as currency". Yet in his 1919 *Currency and Credit*, Hawtrey drew the lines of his plan:

A great extension of the gold exchange standard is sometimes recommended with the avowed object of economizing or even of entirely eliminating the use of gold. Internal circulation can be adequately provided for with papers, which can be maintained at par with foreign currencies by convertibility into foreign credits. Instead of gold reserves every central bank of issue would hold credit balances at foreign centers. (Hawtrey, 1919a, p. 372)

The GES such as advocated by Hawtrey was no more than the institutionalization of the pre-war asymmetry. On the one hand, the core countries – the financial centers in Hawtrey's own words – issued the international currencies used for the settlement of international payments⁷. The monetary authorities' commitment to fix the price of gold in their own currency was a guarantee of credibility and security. On the other hand, the peripheral countries had to adhere to the GES: gold was withdrawn from the internal monetary circulation and the central banks held reserves partly in foreign currencies redeemable in gold, and partly in gold⁸. According to Hawtrey, countries which were not financial centers could not use the discount rate to attract short-term capital and "must therefore hold a relatively large gold reserve" (Hawtrey, 1919a, p. 118). Under the GES regime, countries could maintain at par their exchange rates without gold flows. This monetary system offered a twofold advantage: the use of bank deposits sped up the adjustment on the foreign exchange market and foreign assets were earning assets unlike gold.

Nevertheless, Hawtrey stressed a limit to the GES logic: the economy of gold and the creation of an international inverted pyramidal credit structure based on the gold reserves of the core countries. In the 1920s, the multilateral aim of the GES was to prevent an excessive demand for gold by countries that wanted to return to the gold standard. But in contrast, it "may allow an almost indefinite expansion of paper money with a fixed substructure of gold reserves" (Hawtrey, 1919b, p. 437) in GES countries. Moreover,

⁷ "(...) certain of the participating countries will establish a free market in gold and thus become gold centres" (pars.2 of Res. 12, Genoa Conference, 1922, p. 62).

⁸ "A participating country, in addition to any gold reserves held at home, may maintain in any other participating country reserves of approved assets in the form of bank balances, bills, short term securities or other suitable liquid resources" (pars.3 of Res.12, Genoa Conference, 1922, p. 62).

Hawtrey wanted to avoid what would become the Triffin Dilemma (1960): the increase in foreign sterling balances to meet the world liquidity needs was sustainable when there was no doubt about their convertibility into gold. In the case where these foreign balances largely overstepped the British gold reserves, the credibility of this commitment was threatened and the confidence collapses. To avoid the loss in credibility and confidence in international currencies, Hawtrey's recommendations at Genoa were twofold. First, the GES countries have to limit the total uncovered issue. Yet in 1919, Hawtrey suggested that each GES county taking part in the international agreement establishes "a currency law calculated to allow so much uncovered paper money as, with the portion covered by gold, will just provide for its needs, with a suitable margin or reserve left over" (Hawtrey, 1919b, p. 438). Second, the general adoption of a GES was closely tied to a policy that aimed at stabilizing the purchasing power of gold. According to Hawtrey:

Stabilisation cannot be secured by any hard-and-fast rules. The central banks must exercise discretion; they must be ready to detect and forestall any monetary disturbance even before it has affected prices. (...) The maintenance of the exchanges within a small fraction of parity, which is of the essence of the scheme, may involve a small departure of the internal purchasing power of the unit from the norm in one or more countries. (Hawtrey, 1922, p. 300)

In other words, the financial centers were to pursue stabilization policies at the international level to avoid the over-expansion of world liquidity (sterling and dollar balances) and to stabilize the world's business cycles⁹.

1.4.2 The need for cooperation between central banks

The GES was a stable multilateral monetary system insofar as the "political sovereignty of the center countries vis-à-vis the periphery remained unchallenged" (Richard S. Sayers, 1972, pp. 57–8). Marcello de Cecco felt that the GES "was a highly unstable system" and "could be only stable when short-term creditors had absolute confidence in the

⁹ Like in closed economy, central banks of financial centers have to watch the index of world prices as an estimation of the world purchasing power of gold (Hawtrey, 1919b, p. 440). Contrary to the level of gold reserves, the index variation is a better signal to warn monetary authorities against the instability of US and British credits.

[major] country where they kept their reserves” (1984, p. 120). That is why Hawtrey drew on the cooperation between the core countries to stem the instability generated by a polycentric world.

According to Hawtrey, Great Britain was to share the hegemony with the United States. He supported this view at Genoa suggesting “the meeting of representatives of central banks, to be summoned by the Bank of England, to which the representatives of the United States are to be invited” (Hawtrey, 1922, p. 290). The central banks of the two countries had the duty to carefully manage the international gold standard through cooperation by using their discount rates to stem the instability of credit. Given that the sterling and the dollar were the international currencies, the stability of credit in Great Britain and the United States made possible the expansion of trade and liquidity on a thin base of gold. The BoE and the Federal Reserve Bank (Fed) should support the operation of the international monetary system by regulating the traders’ access to their money markets through foreign and national banks by using the banks’ ability to discount. No such cooperation would have led to competition between the two countries to attract gold and short-term capital. In this case, these monetary policies would have been inconsistent with the stabilization of the world value of gold. Hawtrey’s view on how a managed international gold standard should have to work had a decisive influence on the restoration of the monetary order in the 1920s. According to Mattei:

Hawtrey’s principle of monetary management gained consensus among the senior Treasury officials, including Niemeyer and Blakett, the court of the Bank of England and also the League of Nations. It was exactly this policy [monetary management and cooperation by the main central banks in order to favor price level stabilization] recommendation that was at the core of the official Genoa resolutions. (Mattei, 2016, p. 13)

Two years after the Genoa conference, at the same time as the debate initiated by the 1924 Bradbury-Chamberlain Committee, Hawtrey was amongst those, with Norman, who advised Churchill on the return to the gold standard (Moggridge, 1972, p. 71). In a February 1925 memorandum, entitled *The Gold Standard*, and sent to Churchill, Hawtrey developed his view primarily developed in his 1922 article on the Genoa Resolutions. He reiterated the same argument asserting that returning to the gold standard did not mean

foreign exchange stability to the detriment of price level stability. According to Hawtrey, a well-defined monetary policy, aiming at stabilizing price level through a Bank Rate policy, reconcile internal and external stability. The only method to stabilize foreign exchange rate is to return to a managed GBS, that is to say, a monetary system that could provide both price level stability and international exchange stability. But this return to the GBS for Great Britain had to be accompanied by the development of the GES in European countries. This first pillar of the reform – a general return to an international managed gold standard – could not be separated from the monetary cooperation between the US and Great Britain – the second pillar – aiming at avoiding diverging discount rate, price level variation and capital flows that would provoke pressures on the foreign exchange market and so on metallic reserves.

Pigou, reporter of the Bradbury-Chamberlain Committee, made no reference to the common return to an international gold standard. Keynes discussed this issue but did not share Hawtrey's optimistic point of view and considered the cooperation between the Fed and the BoE as a "pious hope" (1923, p. 174). Keynes acknowledged that the discretionary monetary policy would stabilize the domestic price level¹⁰ but the large gold reserves held by the Fed made Great Britain dependent of the United States' monetary policy:

I doubt the wisdom of attempting a managed gold standard jointly with the United States, on the lines recommended by Mr. Hawtrey, because it retains too many of the disadvantages of the old system without its advantages, and because it would make us too dependent on the policy and on the wishes of the Federal Reserve Board. (Keynes, 1923, p. 176)

For Keynes, restoring the gold standard in Great Britain meant that the domestic price level could vary in relation to movements in the balance of payments. In the case where the Fed stopped sterilization of gold flows, it would decrease the discount rate and would stimulate a rise in US prices. In turn, this increase could provoke a fall in the sterling value of the dollar until the gold export point for the United States. Keynes feared that the current situation would increase the gold flows in Great Britain and would force the BoE to decrease the bank rate, thus disturbing the British domestic price level. In this view,

¹⁰ As Hawtrey did, Keynes insisted on the fact that if the monetary policy is dictated by the metallic reserves, "it [the depletion of metallic reserves] cannot give the necessary warning soon enough" (1923, p. 152) to contract credit.

Keynes considered that the British authorities had to “adopt the stability of sterling prices as their primary objective” (1923, p. 147). Contrary to his pre-war writings, Keynes saw the asymmetry of the new international gold standard as unfavorable to Great Britain:

Even if the most intimate and cordial co-operation is established between the Board and the Bank of England, the preponderance of power will still belong to the former. (Keynes, 1923, p. 139)

In fact, he recommended the devaluation of the sterling to avoid further deflation and supported to foster price stability in spite of exchange rate stability modifying all Thursdays morning the official sterling parity in gold (1923, p. 150). In his scheme he promoted the constitution of two monetary blocs, one managed by the United States and the other by Great Britain. He advocated the GES for other countries but one that was adapted to his scheme:

The wisest course would be to base their currencies either in sterling or in dollars by means of an exchange standard, fixing their exchanges in terms of one or the other and maintaining stability by holding reserves of gold at home and balances in London and New York to meet short-period fluctuations. (Keynes, 1923, p. 158)

Fearing the short-run deflation arising out of the return of the sterling at pre-war parity and the long-run imported inflation from the US, Keynes stood the same position when he appeared as a witness in front of the Bradbury-Chamberlain Committee in 1924 (Moggridge, 1972, p. 43). On the contrary, according to Hawtrey, the new monetary system, based on cooperation among the discretionary monetary policies¹¹, enabled countries to overcome the trade-off between the price level and the exchange rate's stability. As a reply to Keynes, in his 1925 memorandum to Churchill, Hawtrey wrote that he “did not believe that the system [advocated by Keynes] with its unstable exchanges was in the British interest” (Moggridge, 1972, p. 85). Hawtrey maintained that both exchange rate and price level stabilities could be achieved with a “Genoa-type gold standard” (ibid).

¹¹ The cooperation between central banks is the peak of the institutionalization of the new monetary order. As Barry Eichengreen notes (1995, p. 50), the cooperation between the gold standard countries before World War I was frequent but not organized, particularly between the Bank of France and the BoE.

Nevertheless, despite the 1922 Genoa recommendations and the British return to gold, “the proposal for stabilizing the value of gold came to nothing. There was no conference of central banks. But a number of countries restored to the practice of holding reserves in foreign exchange instead of in gold” (Hawtrey 1932, *foreword*). The increased demand to convert sterling reserves into gold forced Great Britain to suspend the gold standard in 1931¹².

An international central bank can only help so long as an international medium is required; it cannot supersede the ultimate remedy of an emergency issue, which remains a matter of national, not of international jurisdiction. (Hawtrey, 1932, p. 274)

To stem the international liquidity crisis, Hawtrey suggested the establishment of an international lender of last resort (thereafter ILoLR). This institution could not issue an international currency: it was more a stabilization fund made up of foreign currencies than a supranational central bank. In case of attacks on foreign currencies, the ILoLR would lend foreign currencies that were previously borrowed from other central banks. The ILoLR's reserves were to be made up of bank deposits. If a central bank needed to support its currency on the foreign exchange market, these funds could be borrowed.

This would be a natural development of the gold exchange standard as contemplated in the Genoa plan and as practiced in recent years. (Hawtrey 1932, p. 275)

According to de Boyer des Roches (2003, p. 181), the ILoLR could take a counterparty risk by granting loans denominated in foreign currencies: its means were large enough to relieve the pressure on the foreign exchange market. If the exchange crisis did not stop, then the ILoLR would be unable to pay back its debts and would worsen the central banks' situation, the interventions of which it coordinated (de Boyer des Roches and Solis Rosales, 2011, p. 195). Admittedly the core countries would have the duty of stabilizing international credit with a counter-cyclical monetary policy, but countries rescued by the ILoLR would be compelled to contract credit by increasing their discount rate to relieve pressure on the foreign exchange market. With the ILoLR, Hawtrey

¹² In his 1932 book, Hawtrey targeted the Bank of France for not having played the Genoa rules of the game and thus to be partly responsible of the 1931 gold standard collapse. Between 1929 and 1931, the Bank of France converted massively its sterling balances in gold creating tensions with Great Britain. About this issue, see Lucy Brilliant and Pierre-Hernan Rojas (2016).

reinforced his assumption that the regulation of the international monetary system relied on coordination by the main central banks.

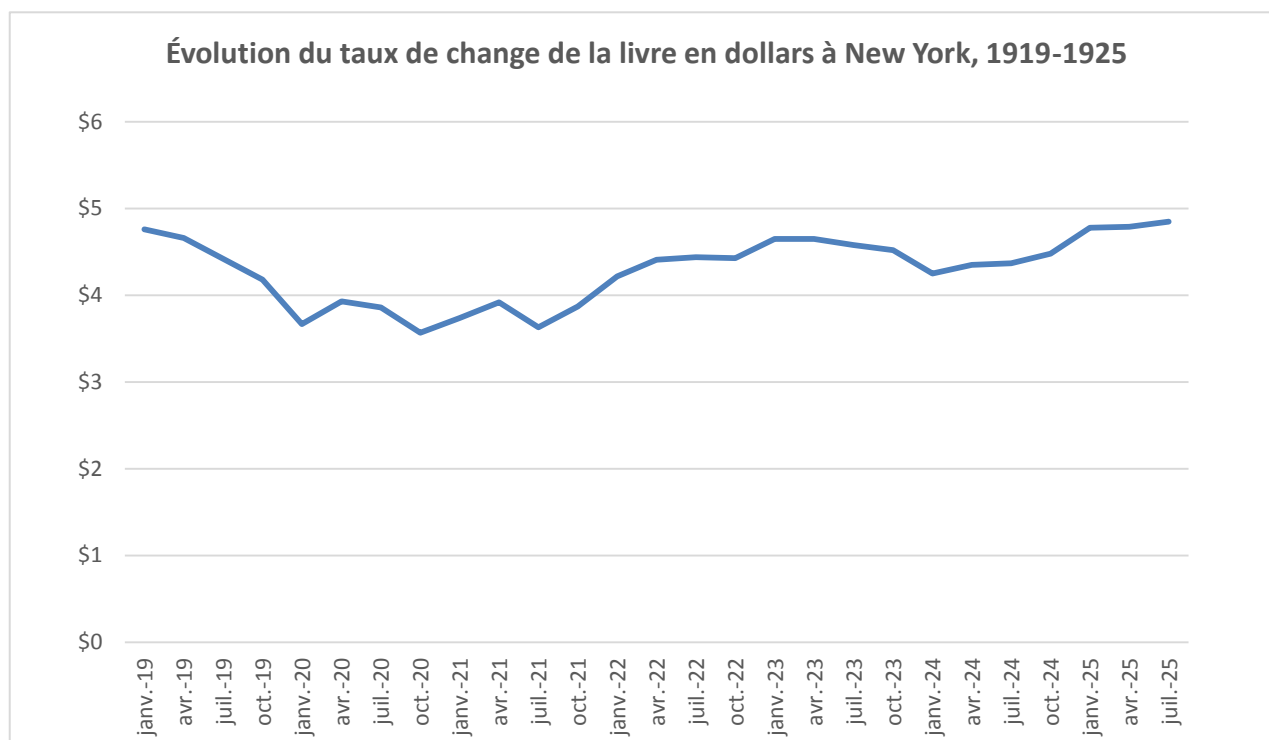
1.5 Conclusion

In the line of the two British Committees held in 1918 and 1924, Hawtrey defended the return to the gold standard in Great Britain at pre-war parity in order not only to allow the exchange rates to fluctuate within the bounds of the gold points but also to allow London to become again an international finance center. That is why the stability in value and confidence on sterling denominated assets were crucial to Hawtrey. Even if the two Committees supported to return to the gold coin standard, it was Hawtrey's recommendations that was promulgated in 1925 in Great Britain. Despite the strong position of Pigou in the two British Committees and the presence of Keynes during the debate, all the evidence show that Hawtrey's views and prescriptions were shared and supported by British officials at that time. While Pigou did not appear in the debate for the return to gold at the international level, Keynes' meaning of a managed gold standard – price level stability as the major objective of the monetary policy at the expense of foreign exchange stability – failed to gain recognition. Hawtrey's support for a managed GBS resulted from his analysis of the absence of an automatic stabilizer to control the instability of credit. A gold standard made more elastic by an active monetary policy conducted by the central bank “make it a more trustworthy standard than it has been in the past” (Hawtrey, 1919b, p. 442).

This chapter studies the adjustment mechanism of the international gold standard in the light of Hawtrey's theory of the monetary cycle. Focusing around the debates during the interwar period, it has shown that the attempt to implement the GBS in Great Britain and the GES in other countries was a way to organize the new asymmetry of international finance that arose from the emergence of the United States as a financial center. If international credit is not managed, the asymmetry is unstable. The asymmetry of the international monetary system was neither new after 1914 nor created by the Genoa agreements, but could be stable if the international financial centers cooperated. In Hawtrey's mind, the objective was to avoid a rise in the world's gold value. To achieve this

goal, cooperation between the US and Great Britain was essential. Charles Kindleberger (1973) defended the argument that a polycentric international monetary system generated instability. Summarizing Kindleberger's view, Eichengreen argued that "the requisite stabilizing influence was adequately supplied only when there existed a dominant economic power, or hegemon, ready and able to provide it" (1995, pp. 4-5). Hawtrey's conclusions were the same; in the absence of one hegemonic power, like Great Britain before the World War I, the asymmetry of the gold standard entailed a dangerous competition between central banks to reconstitute the metallic reserves. The GES was a necessary but not sufficient condition for the stability of the international system: it had to be completed through the active cooperation of the countries on the conduct of monetary policies.

Annexe 1 : Analyse du taux de change £/\$, 1919-1925



Source : Board of Governors of the Federal System (1943), *Banking and Monetary Statistics*, p.681.

Cette annexe présente l'évolution du taux de change de la livre en dollars, côté au certain à New York, entre 1919 et 1925. L'objectif est d'illustrer la politique attentiste des autorités britanniques en vue de restaurer la parité de la livre au taux d'avant-guerre, soit $1\text{£}=4,86\text{\$}$.

Comme tous les autres belligérants européens, le Royaume-Uni a suspendu l'étalon-or au début de la Première Guerre mondiale, laissant donc fluctuer le change de la livre. Cependant, afin d'éviter les fluctuations erratiques du change, les autorités ont décidé d'arrimer la livre au dollar grâce à des emprunts contractés auprès des États-Unis à partir d'août 1915. La politique officielle était de soutenir le taux de change de la livre à $4,76^{7/16}\text{\$}$ (Moggridge, 1972, p. 17). Des restrictions aux mouvements d'or et un contrôle de toutes les

transactions internationales qui impliquaient le Royaume-Uni ont été mis en place parallèlement à cette politique de stabilisation. En août 1918, le rapport intérimaire du comité Cunliffe est publié, exposant la vision officielle de l'étalon-or. Même si ce rapport présente le fonctionnement de l'étalon-or avant 1914 et les raisons pour lesquelles il est nécessaire d'y retourner, « the Committee was very uncertain as to how the transition from a wartime regime of an exchange rate pegged by foreign borrowing and restrictions to one of gold and no restrictions was to be handled » (Moggridge, 1972, p. 19). Étant donné le coût important de la politique de stabilisation du cours de la livre, les autorités britanniques décident, en mars 1919, de l'interrompre tout en réduisant le contrôle des transactions, notamment des capitaux. En l'espace de quelques mois, le taux de change de la livre chute pour atteindre 3,67\$ en janvier 1920. Comme le rappelle Sir Otto Niemeyer au cours de l'été 1921 dans un mémorandum du Trésor, « If we are to get back to an effective gold standard (...) it is certain that there must be some deflation » (dans Moggridge, 1972, p. 23). Le taux de déflation nécessaire pour revenir à la parité d'avant-guerre était néanmoins difficile à définir, dépendant à la fois de la conjoncture américaine et de ses effets sur le cours de la livre. À partir de 1920, le taux de change de la livre en dollar devient l'indicateur principal pour la conduite de la politique économique britannique en vue de restaurer l'étalon-or. Comme le souligne Moggridge (1972, p. 24), « Any restrictive American policy actions had to be matched in London for the exchange to remain where it was and when no American restrictive action took place, British policy still had to be restrictive to work the exchange back to par ».

Entre 1920 et juillet 1921, le cours de la livre fluctue pour plusieurs raisons : les opérateurs de marché tentent d'apprécier la capacité du Royaume-Uni à rembourser ses dettes de guerre, l'évolution du solde commercial modifie les offres et demandes de devises, le cours du change rend attractifs les titres publics américains, etc. (pour davantage de détails, voir Brown, 1940, Vol. 1, pp. 289-91). Entre l'été 1921 et avril 1923, le taux de change de la livre s'apprécie, passant de 3,53\$ à 4,65\$. Cette hausse du taux de change s'explique par l'inflation américaine, qui fait suite à d'importantes entrées d'or depuis 1920, et par la stabilité des prix britanniques. Comme le souligne Brown (1940, Vol.1, p. 306), l'évolution du cours de la livre « provided justification for and confirmation of the views of those who hoped and expected that the pound would return to its old parity with gold

through an adjustment of the London-New York exchange to changes in the relative purchasing powers of the pound and the dollar ». Néanmoins, les difficultés liées aux réparations allemandes, l'occupation de la Ruhr par la France à partir de 1923 ainsi qu'une hausse des prix britanniques, coïncidant avec une baisse des prix américains, font pression à la baisse sur le taux de change de la livre qui chute à 4,25\$ en janvier 1924. En avril 1924, le comité Bradbury-Chamberlain est constitué pour discuter des recommandations faites par le comité Cunliffe six années auparavant. Dans son rapport préliminaire, publié en fin d'année 1924, le comité Bradbury-Chamberlain défend toujours une politique attentiste. La mise en place du plan Dawes¹ à la fin de l'été 1924 a été un signal fort pour les investisseurs, réduisant la fuite des capitaux européens vers les États-Unis. De plus, cette entrée massive de capitaux américains a permis le soutien des taux de change des devises européennes. L'appréciation de la livre s'observe, passant à 4,48\$ en octobre 1924 à 4,78\$ en janvier 1925, alors que les prix britanniques continuent d'augmenter plus vite que les prix américains ; ces derniers ayant amorcé une hausse depuis quelques mois. L'amélioration du change de la livre n'est donc pas due aux disparités de pouvoirs d'achat des monnaies entre le Royaume-Uni et les États-Unis mais bien aux flux financiers induits par le plan Dawes² ; ce point est important car il permet de comprendre pourquoi le taux de change de la livre est revenu au pair d'avant-guerre alors que les mouvements de prix britanniques et américains ne permettaient pas un tel retour. Pour les autorités britanniques, les conditions étaient donc réunies pour retourner à l'étalon-or sans dévaluer. En avril 1925, Churchill officialise le retour à l'étalon-or, à 1£ pour 4,86\$. Dans « *Les conséquences économiques de M. Churchill* », Keynes critique la politique de Churchill qui a conduit à la surévaluation de la livre : « Ce qu'auraient dû dire les experts mais qu'ils n'ont pas dit, peut se résumer ainsi : le montant des salaires, le coût de la vie et les prix que nous demandons pour nos exportations n'ont pas suivi l'amélioration des changes, provoquée par l'expectative d'une restauration de l'étalon-or que faisaient prévoir vos nombreuses déclarations. Ils sont environ de 10 % trop élevés. Ainsi, si vous fixez le taux du change à sa parité-or, il vous faut ou bien tabler sur une hausse des prix-or à l'étranger, qui incite les

¹ Le « plan Dawes », entré en vigueur le 1^{er} septembre 1924, assurait l'octroi de nombreux prêts étrangers, principalement américains. Cette entrée massive de capitaux étrangers était censée permettre à l'Allemagne de payer plus facilement les réparations dues aux pays européens.

² Ces emprunts américains accordés à l'Allemagne ont fait naître des demandes de livres sur le marché des changes, résultat des commandes allemandes à l'industrie britannique.

étrangers à payer davantage en or pour nos exportations, ou vous condamner à pratiquer autant qu'il le faudra une politique de diminution des salaires et du coût de la vie. Nous avons le devoir de vous prévenir que pareille politique n'est pas aisée et qu'elle mène fatalement au chômage et aux conflits industriels » (Keynes, 1925 [1933], p. 111). Les travaux des économistes historiens tendent à valider l'analyse de Keynes (Moggridge, 1972 ; Dimsdale, 1981 ; John Redmond, 1984, K.G.P. Matthews, 1986).

Chapter 2 Central banking under the gold standard: Rist versus Hawtrey on the Bank of France's policy from 1928 to 1931

Abstract

It is widely believed that the difficult return to the gold standard during the 1920s and its demise in 1931 intensified the Great Depression. An interesting way of thinking about national and international monetary mechanisms emerged from the debates between French and British policymakers during those years. We attempt to explain the failure of the Bank of France and the Bank of England to cooperate during that period of political tension by examining the monetary thinking of Charles Rist and Ralph George Hawtrey. Both were involved in the controversy over the strategy of the Bank of France, which accumulated and sterilized gold between 1928 and 1931.

“I am inclined therefore to say that while the French absorption of gold in the period from January, 1929, to May, 1931, was in fact one of the most powerful causes of the world depression, that is only because it was allowed to react to an unnecessary degree upon the monetary policy of other countries” (Hawtrey, 1932, p. 38)

“In fact, circumstances, for a year, that is to say since the beginning of the crisis in New York, have been such that instead of gold going out, it has been coming in. But here the Bank [of France] has remained passive. Gold imports have been the result of arbitrage alone.” (our translation, Rist, 1930, p. 115, see fn 26)

2.1 Introduction

The responsibility of central banks features prominently in recent research establishing a relation of cause-and-effect between the failure of the gold standard and the Great Depression. One major work covering this issue is *A Monetary History of the United States, 1867–1960* (1963) in which Milton Friedman and Anna J. Schwartz emphasized that large inflows of gold during the 1920s, especially from 1929 to 1930, were sterilized by the US Federal Reserve. The Fed was accused of propagating deflation worldwide because, without impacting the USA's own money supply, it constrained other gold standard countries to contract their money supplies (1963, p. 283-4). In a revised version of their book published in 2004, Friedman wrote that their analysis of the causes of the Great Depression had underestimated the involvement of the Bank of France, which, after a period of accumulation and sterilization of gold (from 1928 to 1931), together with the Fed held 60 percent of the world's gold stock in 1931 (Kenneth Mouré, 2002, p. 2). Friedman became interested in the Bank of France's role after reading the memoirs of Emile Moreau, its Governor from 1926 to 1930. Friedman reckoned that the Bank of France might have been largely instrumental in spreading the crisis to other countries (Friedman, 2004, p. 349, quoted by Nicolas Barbaroux, 2014, ft1, p. 2). Of course, economic historians had not waited for Friedman's testimony to explore the connection between the Bank of France's policy and the Great Depression. Solid research had already been done on this issue. In the 1980s for instance Barry Eichengreen (1986, p. 57) claimed the Bank of France was responsible for causing the massive shortage of gold. Eichengreen explained that one main reason for the large gold inflows to France from 1928 to 1931 was the lack of monetary instruments. Open-market operations were not allowed because of the mindset of French policymakers. Eichengreen has reiterated this claim in a recent article co-written with Peter Temin (2000). French policymakers were steeped in the orthodox gold standard theory (Eichengreen and Temin, 2000, p. 183) and therefore reluctant to allow the Bank of France to use other tools than the discount rate to manage money.¹ In the meantime British and US policymakers were exploring new liquidity channels (through the use of open-market operations) and new monetary objectives (aimed at stabilizing commodity prices and

¹ Two significant recent studies in the history of economic thought analyze the debate surrounding the adoption of open-market operations in France: working papers by Barbaroux (2014) and Muriel Dal Pont and Dominique Torre (2014) highlight the divergence of views between Rist and Pierre Quesnay.

promoting employment and investment). Central banks in the 1920s therefore held contrasting attitudes towards monetary tools and objectives, making it difficult for a common monetary policy to be adopted by all. In the literature there is a broad consensus that the return to the gold standard in the 1920s and the way that countries and especially major central banks managed it were key elements to understanding the collapse of world economy in the 1930s (Temin, 1989; Eichengreen, 1992; Ben Bernanke, 1995; Eshan U. Choudhri and Levis A. Kochin, 1980).²

Given the wealth of existing research into the Great Depression, we make no attempt to analyze its causes anew. Instead, we compare the different theories that shaped the mindsets of certain policymakers during the years 1925–1931, as this may account for the lack of cooperation among central banks, which economic historians hold to have been a major cause of the Great Depression. To this end, we compare the thinking of Ralph George Hawtrey (1879–1975) and Charles Rist (1874–1955). No extensive comparative examination of the central banking practices advocated by each of those economic advisers has been attempted to date. We focus on these two authors for two reasons. First, because they were both highly influential through their participation in international committees and their positions as economic advisors in the aftermath of the Great War: Rist was Second Deputy Governor of the Bank of France from 1926 to 1928 and First Deputy Governor from 1928 to 1929; Hawtrey was Director of Financial Inquiries at the British Treasury (from 1919 to 1945).³ Second, because they analyzed central banking practices within a gold standard system in different ways. Hawtrey's analysis of the “structural asymmetry”⁴ of the international monetary system, that so far has not been given much consideration in the economic literature⁵, is of major importance to understanding the

² The issues of overvalued sterling and the undervalued franc are not discussed in this chapter although they also go some way to explaining why the return to the gold standard in the 1920s failed.

³ Hawtrey's monetary views were well known to French economists. Philippe Schwob was a young scholar recruited by Rist to work at the *Institut Scientifique de Recherches Economiques et Sociales* (ISRES) (Tournès, 2006, p. 52), which was considered the leading center for research into economics based on statistical observations. Schwob wrote, “I daresay I have chosen Mr. Hawtrey's articles as typical of the English attitude towards French policy, because he is considered, on this side of the Channel, as the strongest critic of this policy and one of the best champions of British economic thought” (Schwob, 1936, p. 72)

⁴ Hawtrey did not use the term “asymmetry” in his work but referred to it when analyzing the differences between financial centers (London before 1914; London and New York from 1918) that financed international trade through bills denominated in sterling and/or dollars, and other countries (Hawtrey, 1919a, p. 103).

⁵ Except Pierre-Hernan Rojas (2015).

orientation of policies adopted in the 1920s. Pointing out the asymmetry within the international payments system, Hawtrey proposed at the 1922 Genoa Conference specific measures – the gold exchange standard (GES) and cooperation between major central banks – to reduce the instabilities generated by a multi-centered world dominated by the USA and Great Britain. However, to have any hope of success, Hawtrey's proposal had to secure the approval of all the leading central banks. Because French policymakers refused to adopt new monetary tools and monetary objectives, Hawtrey's plan failed. In this chapter, we present Hawtrey as a proponent of “managed money” – a term that appears in Rist writings (a French official report kept in Rist's Papers, 1927, Box 23/1/037200603, and in Rist, 1932, p.174). In contradistinction to this, we present the orthodox view of central banking as illustrated by Rist's thinking. On the orthodox view, gold flows between countries were supposed to restore the balance of payments to equilibrium. However, the substantial accumulation of gold by the Bank of France prevented this mechanism from working. Whereas Rist exonerated the Bank of France, Hawtrey incriminated it. Our chapter describes the differing beliefs held by Hawtrey and Rist concerning the philosophy, instruments, and goals of monetary policy. This divergence in views may shed light on the contrasting advice they tendered about central banking practices.

It should be said that we have found no evidence of any direct correspondence between Rist and Hawtrey. We base our research on several publications and books in which the two refer directly to one another's work. Rist for instance considered *Currency and Credit* (1919) to be Hawtrey's most important book (Rist, 1938, p. 314) and even supervised the French translation of its third (1928) edition.⁶ Likewise, Hawtrey was interested in Rist's work. He wrote a review of Rist's *Essais sur quelques problèmes économiques et monétaires* (1933) in 1934. The only debate we found was published in the *New Series* of the journal *Economica* in 1935 and 1936. There, Hawtrey debated directly with Rist's young colleague Philippe Schwob.⁷ Concurring with Rist, Schwob defended the policy of the Bank of France (1935, 1936) against Hawtrey's criticism in the first chapter of the *Art of Central Banking* (1932). This debate clearly illustrates the differing outlooks of French and British economists during this period of financial distress.

⁶ *La Circulation monétaire et le crédit* (1935). It was translated by the two young French economists Georges Gausse and Leonard Rist (one of Charles Rist's five sons).

⁷ For more information on Schwob, see footnote 5.

Conscious of the researches already existing concerning the Great Depression, our work does not pretend to add another analysis of its causes. We compare the different theories shaping the mind of some policymakers during the years 1925-1931, which can explain the lack of cooperation between central banks – a major cause of the Great Depression according to economic historians. To achieve this task, we confront the analysis of Ralph George Hawtreys (1879-1975) to Charles Rist's one (1874-1955). To focus on and compare the specific theory of those authors, on the theme of central banking practices, has not been extensively done so far. We chose those authors for two reasons. Firstly because they were very influential thanks to their participations to international committees and their function as economic advisors in the war aftermath: Rist was the second deputy governor of the Bank of France from 1926 to 1928 before becoming the first deputy governor between 1928 and 1929, and Hawtreys was the Director of Financial Inquiries at the British Treasury (from 1919 to 1945)⁸. Secondly because they analyze in different ways central banking practices in a gold standard system. Hawtreys's analysis of the "structural asymmetry"⁹ of the international monetary system, that so far has not been analyzed much in the economic literature, is of major importance to understand the direction of the policies adopted in the Twenties. Because Hawtreys pointed out the asymmetry of the international payments system, he proposed at the Genoa Conference (1922) specific predicaments – the gold exchange standard (thereafter GES) and cooperation between major central banks – to reduce the instabilities generated by a polycentric world dominated by the US and England. However, the success of Hawtreys's proposal relied on the approbation by all main central banks. Because French policymakers refused to adopt new monetary tools and monetary objectives, Hawtreys's plan failed. In this chapter, we present Hawtreys as a partisan of a "managed money" – a term that appears in the French official reports that we found in Rist's Papers held at the Bank of France

⁸ Hawtreys's monetary view was well known by French economists. Philippe Schwob was a young scholar recruited by Rist to work at the Institut Scientifique de Recherches Economiques et sociales (ISRES) (Tournès, 2006, p. 52) which was considered as the first center of research specialized into the study of the economics with statistical observations. Schwob wrote: "I daresay I have chosen Mr. Hawtreys's articles as typical of the English attitude towards French policy, because he is considered, on this side of the Channel, as the strongest critic of this policy and one of the best champions of British economic thought (Schwob, 1936, p. 72)

⁹ Hawtreys does not use the term "asymmetry" in his work but refers to it when he analyses in detail the differences between financial centers (London before 1914; London and New York from 1918) which finance international trade thanks to bills denominated in sterling and/or in dollars, and other countries (Hawtreys, 1919a, p. 103).

(Rist, 1927, Box 23/1/037200603) and also in Rist writings (Rist, 1932, p. 174). On the other side, we emphasize the orthodox view of central banking with Rist's thought. In this latter thought, gold flows between countries were supposed to restore balance of payments equilibrium. However, the large accumulation of gold by Bank of France prevented this mechanism. While Rist exonerated the Bank of France, Hawtrey rather incriminated it. Our chapter emphasizes Hawtrey's and Rist's different beliefs on the meaning, instruments and goals of monetary policy. Those different view can help to grasp their different advices of central banking practices.

Let it be said that we did not find evidences of a direct correspondence between Rist and Hawtrey. We base our research on several publications and books in which those authors refer directly to each other's works. Rist for instance considered *Currency and Credit* (1919) as the most important book written by Hawtrey (Rist, 1938, p. 314). Rist supervised the translation from English to French of the third edition of *Currency and Credit* (1928) in order to make accessible this book to French readers¹⁰. Hawtrey was as well interested in Rist's works. He wrote a review of Rist's book *Essais sur quelques problèmes économiques et monétaires* (1933) in 1934. The only one debate we found is published in the *New Series* of the journal *Economica* in 1935 and 1936. There, Hawtrey debated directly with Rist's young colleague Philippe Schwob¹¹. Agreeing with Rist, Schwob defended the policy of the Bank of France (1935, 1936) against Hawtrey's critic appearing in the first chapter of the *Art of Central Banking* (1932). This debate shows well the different mentalities between French and British economists during this period of financial distress.

The plan of our research is the following. The **Section 2.2** is an historical summary recalling the monetary arrangements adopted by French monetary legislation in 1926 and 1928 encouraging the accumulation of gold in France. The **Section 2.3** analyzes and compares the nature of money in Rist's and Hawtrey's thoughts. The **Section 2.4** develops Rist's vision of the classical adjustment mechanism of the gold standard. The **Section 2.5** is about Hawtrey's analysis of the asymmetrical structure of international finance. The **Section 2.6** compares and contrasts the different objective of monetary policy in Hawtrey

¹⁰ The French translation of *Currency and Credit* was published in 1935. It was translated from English to French by the two young French economists Georges Gaussel and Leonard Rist (one of the five sons of Charles Rist).

¹¹ For more information on Schwob, see footnote n°6.

and Rist's thoughts, in the light of their monetary reforms proposals. While Hawtrey is in favour of new monetary objectives, Rist recommended returning to a sound pre-war gold standard policy. The **Section 2.7** examines the argument that France accumulated gold because open-market operations were prohibited. The **Section 2.8** concludes.

2.2 Historical Summary: France and the return to Gold

A summary of the historical context is helpful to understanding France's accumulation of gold and the widespread conversion of sterling balances between 1928 and 1931. Before discussing the debate between Rist and Hawtrey over French monetary policy, some figures are useful for describing the magnitude of the movement of gold reserves in France. Irwin (2010, p. 16) states that the Bank of France's foreign-exchange reserves fell by 35.5 percent between 1928 and 1931 while its gold reserves shot up by 115 percent over the same period. In 1928 and 1929, the Bank of France converted its dollar- and sterling-denominated assets on the Fed and the Bank of England into gold. This conversion did not result from the state of the French balance of payments but from the Bank of France's eagerness to reconstitute its gold reserves so as to comply with the 1928 legislation. From mid-1929, gold inflows were mainly the result of large capital inflows tending to raise the exchange rate of the franc to the gold import point. While the 1928 monetary statute required the Bank of France's cover ratio to be a minimum of 35 percent, actually, the cover ratio rose from 40 percent in 1929 to 50 percent in 1930, 55 percent in 1931, and 80 percent in 1932 (Irwin, 2010, p.13). The stock of gold held by the Bank of France increased by 230 percent from 1920 to mid-1931. The increase in gold inflows did not result in an increase in the money supply although the Bank of France lowered the discount rate over the period from 5 percent in 1927 to 2.5 percent in 1930 (*Banking and Monetary Statistics*, Board of Governors of the Federal Reserve System, 1943, pp. 656-9). Again, according to Irwin (2010, p. 18), while the monetary base (gold and domestic assets) rose by 20 percent between 1928 and 1932, money supply M2 (cash, demand deposits, and short-term time deposits) increased by a mere 1.23 percent. The absence of effects of reserve flows on the money supply was analyzed as a monetary sterilization policy, deliberately conducted by France and putting greater pressure on foreign centers such as London.

Let us return to the facts. Like all other European countries, France suspended the gold standard at the outbreak of the Great War so as to ease wartime financing through taxation, long-term loans from the Allies, and borrowing (*avances*) from the Bank of France. In the aftermath of war, with the French economy damaged, these methods of finance complicated the return to the gold standard. Between 1920 and 1926, French inflation coupled with French exchange-rate instability were made worse by the means with which the French government authorities tackled the issue of resorbing public deficits in order to relieve the burden of public debt (see **Annexe 2 : Analyse du taux de change \$/F**, 1919-1927 for a detailed study of that period). This could be explained in part by the myth, which was firmly rooted in French political circles, that Germany would pay war reparations thereby sparing France the need for fiscal discipline.¹² It was only on 31 May 1926 that the Sergent Committee was appointed by the government of Aristide Briand to make concrete proposals to stabilize the French currency and consolidate public finances.

In the official report released on 5 July 1926, and to which Rist contributed, the Committee dismissed the return to the pre-war parity of the Franc because it had depreciated considerably in value. Since 1919, the French exchange rate had plummeted. Depreciation peaked in July 1926 when \$1=FF41 and £1=FF240, while the pre-war par of exchange had stood at FF5.18 and FF25.22, respectively. The Committee reported:

The full re-appreciation of the franc is chimerical today, because it would mean continuous and systematic deflation, which would be ruinous for taxpayers who would be crushed by the weight of a public debt that represents in nominal value France's entire fortune, ruinous for industry, trade, and agriculture that could withstand neither the indefinite reduction in prices nor the consequences of commitments entered into since the depreciation of the franc began (...) These reflections have thus convinced the Committee that *the franc should be stabilized as soon as possible* and all its work has been to determine the conditions for this. (our italics, our translation, Report of the Sergent Committee, p. 9)

French experts preferred stabilization, which meant devaluation, to re-evaluation of the franc, which would require deflation. To achieve monetary stabilization in France, the Committee advocated a return to a balanced public budget and the stabilization of the

¹² Eichengreen and Temin (2000, p. 190) argue that “eliminating the fiscal deficit would have undermined their claim that German reparations were needed to defray the costs of reconstructing the French economy.”

French exchange rate, the two objectives being mutually dependent if monetary stabilization was to be achieved. To allow fiscal consolidation, the Committee called for new taxes and an increase in current taxes, the creation of a *Caisse de gestion des bons de la Défense nationale* – an autonomous Treasury account – for funding and managing the floating debt with an assignment of taxes to pay it off. Fiscal measures were crucial since the public deficit had widened by 134% since 1920 (Sauvy, 1965, p. 376), fueling the growth of public debt. To stabilize the French currency, the Committee recommended empowering the Bank of France to buy gold and foreign exchange, especially sterling-denominated assets, at a premium approximating the market price. The note issue would be backed by both gold and foreign exchange. The aim of this institutional arrangement, which was at the root of the GES, was to facilitate the stabilization of the French currency by providing the Bank of France with the power to intervene directly on the foreign-exchange market.

On 22 July 1926, Poincaré was appointed *Président du Conseil* – a position that he already held in 1913 and in 1922–1924 – combined with the office of Minister of Finance. From the outset, he implemented the Committee's recommendations in the statute of 7 August 1926. Shortly before, on 26 June, Emile Moreau and Rist had been appointed respectively Governor and Second-Deputy Governor of the Bank of France. While the Committee had defined a three-stage stabilization period¹³ before returning to a full-fledged gold standard, the level of French stabilization was set in late 1926 at around £1 for FF122 and \$1 for FF25. These new powers under the legislation enabled the Bank of France to avoid the appreciation of the French currency leading to an “accumulation from December 1926 to June 1928 of vast stocks of convertible foreign exchange” (Eichengreen, 1986, p. 62). Within a little more than one year, between February 1927 and June 1928, the French foreign-exchange reserves in dollars and sterling increased by 864 percent, from FF2,750 million to FF26,529 million.

The monetary legislation of 25 June 1928 formalized the return to the gold standard at a parity devalued by 79.7 percent compared to the pre-war rate. Henceforth, the par of

¹³ A preliminary stage during which inflation had to be checked and the franc would be free to fluctuate; a stage of *de facto* stabilization, in which to identify the rate at which the French currency stabilized, and a stage of *de jure* stabilization. See Hawtrey (1932, p. 10).

exchange stood at £1 for FF125.21 and \$1 for FF25.53. While the Committee recommended the return to the gold coin standard (GCS), actually, it was a gold bullion standard (GBS) that was decided on, as in Great Britain.¹⁴ The legislation made changes to the statutory obligations of the Bank of France. Not only had it to buy all gold at a set price but now gold alone was considered as the official reserve, prohibiting further purchases of foreign exchange on the open market. The Bank of France could use the amount of foreign exchange it already held in its reserves freely. Finally, the Bank of France was required to maintain a gold reserve ratio of a minimum of 35 percent of its notes and deposit liabilities. Of course, the practice of advances to the Treasury was abolished. With the new undervalued parity, France succeeded in restoring confidence in its currency and so resorbing the balance of payments deficit by attracting French and foreign capital flows which had been diverted elsewhere because of French financial instability during the 1920s.

2.3 On the nature of money

This section highlights the two different definitions of money held by Rist and Hawtrey, and their two different views of the use of gold by the monetary system.

For Rist the essential function of money was to serve as a “reserve of value” (Rist, 1938, p. 328). He argued that it was because money had an intrinsic value that people trusted it, and that they used it as a means of exchange, as explained by Jérôme Blanc (2000, p. 266). For Rist, only metallic money like gold could serve as a reserve of value. He did not consider paper money to be money (Rist, 1938, p. 329). In the same book, Rist criticized several authors and notably Hawtrey for forgetting this important function of money:

Money, it has been commonly said from Michel Chevalier to Colson, is a medium of exchange and a measure of value (...) The same expression is to be found in more recent authors: Cassel, Hawtrey, Robertson and so on. To reduce money to these two functions has some major drawbacks (...) However, metallic money fulfills a third function, which is the most

¹⁴ The Committee (1926, p. 46), especially Rist, advocated the return to the GCS meaning the gold convertibility of domestic means of payment. However, in 1928, given the amount of French gold reserves, the return to the GCS was postponed.

important of all and that probably gives rise to all the others: the function of a reserve of value, insurance against the uncertainty of the *future*. (our translation, Rist, 1938, pp. 328-9)

Schumpeter (1954, p. 304 fn) noticed that Rist's monetary thinking was similar to Cantillon's, for whom money enabled the circulation of goods, and credit enabled the circulation of money (as noted by Jérôme de Boyer des Roches, 2013, p. 9); money and credit were considered to be two separate things. Furthermore, John R. Hicks (1943, p. 112) explained that Rist underlined the differences between money and credit in his book *History of Monetary and Credit Theory from John Law to the Present Day* (1938).

In his 1943 review of Rist's *History of Monetary and Credit Theory* (1940, translated into English by Jane Degras), Hicks tried to explain why French economists were so reluctant to create new instruments of payment other than gold. Hicks attributed this to the loss of confidence in paper money in France because of several unfortunate experiences when the French government allowed the issue of paper money, the *Assignats* (from 1789 to 1797) which engendered inflation and a complete loss of wealth of its holders. In the view of the French people, a money debased from gold was not a reliable asset. Hicks argued that French economists like Rist were concerned with finding a sound currency in order to avoid the errors of the past, and this could explain why money should be issued on the basis of its capacity to keep its value. In this respect, gold is the more appropriate money.

Hawtreys's monetary theory differed from Rist's. In Hawtreys's thinking, money was a means of paying debts, and debts enabled goods to circulate:

It is used as a medium of exchange because a purchase creates a debt, and money provides the means of paying the debt (Hawtreys, 1919a, p. 16)

Hawtreys produced a theory of credit before coming up with a theory of money. In the first chapter of *Currency and Credit*, he gave an account of a hypothetical economy based on credit alone, in order to "find the logical origin of money" (Hawtreys, 1919a, p. 2). In such an economy, credit is a medium of exchange. Credit/or debt is created when a delivery of goods is not immediately followed by payment in monetary terms. Credit/or debt is a promise to deliver money at a future date other than that of the delivery of the goods. For

instance, if a wholesaler A delivers goods to a retailer B and B promises to pay A in money at a later date then; a debt or credit is created from B to A:

If a man sells a ton of coals to another, this will create a *debt* from the buyer to the seller (Hawtrey, 1919a, p. 2)

The practice which we have attributed to the dealers of setting off one debt against another may be described as the use of credit as the means of payments. Debt and credit are different names for the same thing. (Hawtrey, 1919a, p. 4)

When wholesaler A accepts the debt or credit of retailer B, goods are delivered to B. There is a flow of commodities when a credit or debt is created. Trust is the necessary condition for debt or credit to be created, and for goods to circulate within the economy. If merchants do not trust the capacity of each other to carry out its commitments, then they cannot be used and no trading can occur.

From their different views of the nature on money, Hawtrey and Rist advised differing currency standards according to which debts should be denominated in a closed economy. For Rist, the rule of convertibility of bank notes into gold provided an effective mechanism for avoiding price level instability and so government manipulation of money. For instance, if inflation occurred because of over-issuing, economic agents would be encouraged to change their deposits or paper money into gold at their banks, which would lead to a reduction in the metallic reserves of the banking system. To protect their gold reserves, the banks would then be forced to raise their discount rate in order to restrict credit, and to limit the issue of notes redeemable in gold on demand. Because traders believed gold to be a more reliable asset than paper money, they preferred to hold gold instead of paper money. The liquidity risk that banks faced when they increased their issue of notes would limit over-issuing. Hawtrey, like Rist, emphasized the risk faced by banks when they over-issued bank notes, because they would have to convert bank notes into gold on demand:

From this point of view a banker's business may be regarded as composed chiefly of dealings in "options" and "futures" in gold. A bank credit is an option to buy gold at any time; a loan or bill is an undertaking to deliver gold at some fixed future date. (Hawtrey, 1919a, p. 230)

Like Rist, Hawtrey acknowledged the importance of a currency standard (such as a metallic currency, even if Hawtrey thought that a currency debased from gold could better serve this function) in preventing undue variations in the value of money. A currency standard was necessary to reduce the instability of credit leading to variations in the value of money. However, Hawtrey did not consider that all demand for money from traders was inflationary. In this sense Hawtrey's analysis differed from Rist's. Traders might need cash not to make new investments but for instance in order to settle their debts towards their employees in the ordinary course of business. Having access to cash for cancelling debts was crucial for traders, because during the process of production, they locked their cash into the investment project, and therefore had no liquidities. The return on the investment would come at some future date, when the trading partner paid for her/his orders:

The process of production which follows gives rise to a chain of *debts*. The manufacturer or contractor becomes indebted day by day to his employees. The merchant becomes indebted to the manufacturer. But whereas the merchant's indebtedness is due at some future date, when the goods are to be delivered, the manufacturer's obligations are immediate; his employees want to use these obligations as purchasing power. (Hawtrey, 1919a, p. 453)

The activity of the banker, Hawtrey explained, was to purchase traders' bills (below their market price, the difference being the discount rate charged by the banker) and sell cash to traders needing it. One of the important functions of money, to Hawtrey's way of thinking, was to serve to cancel debt. This function does not appear in Rist's analysis. For Hawtrey, the issuing of bank notes had to be flexible in order to provide liquidity to traders:

Here intervenes the banker, who takes the immediate obligations upon his own shoulders, in exchange for a future obligation which the manufacturer, as the creditor of the merchant, is in a position to give him. The banker's debts, unlike those of the manufacturer, can be conveniently used as the means of payment; or, where legal tender money is needed for the purpose, the banker makes it his business to supply money on demand (Hawtrey, 1919a, p. 453)

In short, a gold standard provided a mechanism by which to avoid undue fluctuations in the value of money for Rist. Hawtrey also thought that a currency standard was necessary to keep the value of money stable. However, that standard had to be a currency

other than gold, because the central bank needed to be able to extend the issue in times of distress. In other words, it should act as a lender of last resort in a permanent way (de Boyer des Roches and Solis Rosales, 2011, p. 189). The need for flexibility arose from the latent need for money of traders, who had to pay off their debt before receiving any return on their investments. A rigid system of money issuing such as the GCS, according to Hawtrey, was not ideal, because of the liquidity risk and crisis of confidence it might generate (Hawtrey explained this clearly on the first page of Chapter 3 of *Currency and Credit*).

2.4 Rist on the gold standard and the classical adjustment mechanism

The gold standard was a way of limiting the quantity of credit within the economy since the monetary authorities were committed to converting bank deposits and paper money on demand into a fixed quantity of gold. Thus the level of paper money and credit depended on the level of gold reserves held by the central bank. How was the level of gold reserves determined under the international gold standard? Following disequilibrium in the balance of payments, gold movements between countries operated as a balancing force through their effects on nominal wages and commodity prices. Rist referred to the classical theory of foreign exchange, first developed by Thornton (1802), whereby real and monetary factors, being the source of demand and supply for foreign exchange, caused balance of payments disequilibrium and triggered gold flows when the exchange rate reached the gold points.¹⁵ This theory, known as the gold points mechanism, laid down a rule that central banks could follow under the gold standard.¹⁶

¹⁵ Given that gold standard countries set the values of their currencies in terms of gold, the exchange rates fluctuated in a range around the par of exchange, which meant the relative amounts of pure metal contained in two units of value, plus the cost of transferring gold from one location to another.

¹⁶ Rist thought that Ricardo developed the gold points mechanism (1931a, p.141) while Ricardo strongly rejected Thornton's theory during the 1811 Bullion Controversy, reversing the causal connection between balance of payments disequilibrium and gold flows. According to Ricardo, inflation resulting from redundancy in the currency caused gold exports and balance of payments disequilibrium. For this controversy, see de Boyer des Roches (2007). However, in his *Histoire des doctrines relatives au credit et la monnaie depuis John Law jusqu'à nos jours*, Rist (1938, p. 146) made a clear distinction between Ricardo's theory and Thornton's.

Domestic traders, whether paying for imports or making investments abroad, sold domestic currency on the foreign exchange market and bought the currency of foreigners. Where demand for foreign currency was a higher than for domestic currency, which was a feature of a deficit in the balance of payments,¹⁷ the domestic currency depreciated. In other words, a greater quantity of domestic currency was needed to obtain a given amount of foreign currency. When the exchange rate reached the gold export point, gold was exported to the foreign country where bullion dealers received more foreign currency on the gold market than on the exchange market. When that happened, gold was drained from the country. Since the central bank had the duty to ensure gold convertibility of the currency and since the state of the balance of payments was a guide for monetary policy, the depletion in gold reserves compelled the central bank to raise its discount rate, the rate at which bills were rediscounted. A rise in the bank rate would have two effects, on trade and capital: first, it would increase the cost of short-term borrowing, and so make it profitable for arbitragers to invest money in domestic bank deposits, as a consequence the surplus in sales over purchases of the domestic currency would diminish; second, it would impact internal prices such as commodity prices and wages, so tending to improve the terms of trade. The depletion of gold would limit the extent to which banks could create credit and would discourage investment and employment. Demand for goods and new workers would decline. Then, low prices would make domestic goods more attractive to foreign buyers, so exports would rise, and gold would flow into the country. The two channels of transmission – the balance of trade and capital flows – ensured the balance of payments re-equilibrium. According to Rist:

When the exchange rate is favorable in Paris and the gold import point is reached, gold, leaving London or New York through arbitragers' actions, narrows the credit base in London and widens it in Paris. There follows a rise in the short-term interest rate in London with a fall in the same rate in Paris. The higher remuneration in London forcefully attracts Parisian short-term capital and tends then to reverse capital flows from one of these financial centers to the other (our translation, Rist, 1928, pp. 100-1).

¹⁷ Rist (1925, p. 32) recalled that this gap could be the result of bad harvest, a fall in foreign prices, or a simple seasonal lag between sales and purchases abroad.

So the central bank had a “passive” role in Rist’s theory (Mouré, 2002, p. 254), because the discount rate depended on the level of gold held in reserves. Rist referred to these automatic adjustments in a conversation with Benjamin Strong and George L. Harrison on 29–30 June 1927. It appears that Rist believed that, if all central banks abided by the rules of the game, the gold standard would be a self-regulating system.

The entire effort of French monetary policy has been to return to normal conditions enabling a return to the automatic interplay of interest rates and gold movements. (our translation, Rist, 1927, underlined as such in the text)

Rist argued that the central banks should index their discount rates according to the state of their gold reserves. Discount rate policies were supposed to speed up the adjustment of the balance of payments. After the demise of the gold standard in 1931, Rist was again clearly in favor of all countries returning to the GCS:

If we want the gold standard to operate normally again, it suffices to create all the normal conditions under which this system worked in the nineteenth century. Let discount rates come back in to play; let us renounce the practices of “managed currency” whose ill effects are plain to see (...) – let us restore international trade which is now all but wiped out (...) The gold standard will operate again, to everyone’s satisfaction, because we will have established the normal routes by which gold should be distributed in the world. (our translation, Rist, 1932, p.174)

Rist acknowledged that it was the change in discount rates between countries, guided by the state of the balance of payments, that would restore the external balance through the effect on short-term capital flows. If the movements of capital flows failed to impact the exchange rate sufficiently, gold flows would continue until the rise in the discount rate improved the balance of trade, through the depressive effect of credit contraction. Rist was reluctant to use the discount rate for any other role than protecting the gold reserve. He feared the disruption of the automatic adjustments operating under the gold standard. In Rist’s words, a reduction in the discount rate while the balance of payments was in deficit would be a “falsification of the real policy of the gold standard” (our translation, *ibid*, p. 173). Flexible nominal wages and commodity prices were seen as a necessary condition for the restoration of the balance of payments equilibrium. The central bank should not try to

influence new investments. It should only respond to demand for cash against bills when prices had fallen sufficiently.

2.5 Hawtrey's asymmetrical view of the gold standard

Hawtrey shared with Rist the analysis of the foreign-exchange market in adopting the Thorntonian mechanism of the gold points. Considering that goods and capital circulate by means of bills of exchange that affect the demand for and supply of foreign currency, Hawtrey stated that, in theory, gold flows between countries were a safeguard against the instability of credit:

Any country which indulges in an expansion of credit in which its neighbours do not participate tends to lose gold, but this leads it to curb the expansion, and the gold which it exports forms the basis of an expansion in other countries. (Hawtrey, 1919a, p. 88)

According to the classical view – supported by Rist – the world consisted of homogeneous countries and balance of payments disequilibria resulted from exogenous shocks, such as a poor harvest or credit expansion. Each country was assumed to conduct a monetary policy in keeping with the state of its balance of payments. So gold flows between countries operated as an impediment to the instability of credit. This theoretical framework assumed that the gold standard operated symmetrically. Take the example of a French trader wanting to import Indian goods. To finance the shipment of goods from India to France, the Indian exporter would issue a bill of exchange against the French importer payable at some future date. The transaction would be made through the banking system of both parties. The French importer's bank would accept the bill and the French trader would remit the sum to the Indian producer through his bank upon maturity. In other words, the trade between India and France would give rise to a demand for rupees against a supply of francs on the foreign-exchange market. Within that framework, the depreciation of the exchange rate, and then the exporting of gold, would compel the central bank to abide by the rules of the game, that is to say, to raise the discount rate.

However, Hawtrey objected to the fundamental hypothesis underpinning Rist's view of the functioning of the gold standard. Unlike Rist, Hawtrey believed that the structure of international capital markets was asymmetrical because countries were not independent in

their credit policies. Most of them had to follow the credit policy of the Bank of England, which Hawtrey considered to be a leading authority. The Bank of England exerted direct control over London's financial market, which was the most powerful financial center in the world.

The nineteenth century credit system is not to be interpreted as consisting of a number of countries each exercising independent control over credit within its own limits, and being led by the influence of gold movements to accommodate its credit policy to that of the others. It is rather to be regarded as a centralized system responding to a leader. The center was London and the leader the Bank of England. (Hawtrey, 1929, p. 70)

International contracts were denominated in sterling and payments were made through the British banking system even though the international goods were not bound for Britain. Foreign banks owned subsidiaries in London that made the country the center of the world's stock of gold, commodities, and capital markets. The international gold standard was structurally asymmetric as a result of the domination of sterling as the medium of international exchange. Contrary to the symmetric case which assumed that each domestic financial and banking system financed its traders for international trade, the asymmetric case assumed that international traders financed their stocks by credit balances in sterling accounts. To take up again the example developed earlier, i.e. the trade between India and France, in the asymmetric case, the French trader paid for the Indian goods with a bill of exchange drawn on a bank in London. The bulk of trade between foreign countries was financed by bills of exchange in sterling, which were discounted in London and at maturity payable in British currency. According to Hawtrey:

The essential characteristic is that even though the bills may be drawn by foreigners on foreigners, yet they are drawn on the center [here London] and payable in its currency. (Hawtrey, 1919a, p. 106)

In the asymmetric case, the exchange rate was not determined by demand for and supply of currencies reflecting international trade. Since sterling denominated assets financed international trade, there was a sustained demand for sterling on the foreign-

exchange market for the needs of international trade. For Hawtrey, the asymmetric structure of the international payments system made London the “world clearing house”:

As traders in the more circumscribed area of a single country pay one another in cheques which are passed through a single clearing-house, so international traders pay one another in bills which are drawn on a single financial centre. Thus London is often called the clearing-house of the world's trade. (Hawtrey, 1919a, p. 106)

Because the system of international payments had only one center (London), it was asymmetric. Therefore, any credit disturbance originated by a variation in the discount rate of the Bank of England engendered credit disturbances in peripheral countries. If the Bank of England restricted credit in London, it would engender a contraction of activity in peripheral countries. In the third edition of *Currency and Credit* (1928), Hawtrey reminded readers of the decisive influence of British credit terms on foreign countries. The Bank of England, by influencing both the liquidity of the British money market and its price with the discount rate policy, governed global cycles. A rise in its discount rate depressed world demand for goods. In other words, world prices and economic activity hinged upon the policy of the financial center before 1914:

When it [the country that is the financial center] inflicts contraction of credit on the international merchants, it not only makes the restraint on its own producers more complete, but it extends the restraint in some degree to producers in other countries. The contraction of credit depresses world markets: producers everywhere find that demand flags and competing sales are hastened. World prices fall, or, in other words, foreign currencies appreciate (Hawtrey, 1928, p. 139)

As well as depressing world demand, an increase in the Bank of England's discount rate resulted in a capital inflow and influenced foreign monetary policies: domestic lenders repatriated their assets, and foreign lenders sought to obtain sterling-denominated assets rather than holding dollar or franc assets. Hawtrey argued:

It is for this reason that a rise in the London Bank rate is quickly accompanied by a rise in all other bank rates. Any money market which maintained too low a rate would quickly find the exchanges growing adverse owing to the desire of lenders to remit abroad. (Hawtrey, 1919a, p. 117)

A rise in the British discount rate compelled foreign central banks to follow suit in order to avoid large gold outflows. The realization that in the asymmetric case, one currency – here sterling – was used both to finance international trade and to invest short-term funds shed light on how monetary policies were linked under the international gold standard. Contrary to the symmetric case, the British expansion of credit resulted in “a universal expansion of credit, common to the entire gold-using world” (Hawtreys, 1919a, p. 89). This matter of fact led Hawtreys to call for wise management by the Bank of England of the global cycles that originated in changes in its discount rate. This issue of monetary management raised by Hawtreys was of importance since it explained why in the 1920s Hawtreys supported cooperation among the world's leading central banks when countries decided to return to the gold standard.

2.6 The impossible cooperation between central banks: Rist vs. Hawtreys

This section presents an interpretation of the reasons why the Bank of England and the Bank of France failed to coordinate their monetary policies in the late 1920s. While Hawtreys was in favor of limiting gold movements, Rist advocated a sound gold standard policy under which gold should circulate freely among countries.

Alongside debates and reforms implemented at national level in the 1920s, European countries decided to hold conferences, first in Brussels in 1920 and then Genoa in 1922, in order to organize the common return to gold. Eichengreen (1992, p. 153) points out that no such conferences had been arranged before 1914, giving European leaders of that time a forum in which an international monetary cooperation framework could be negotiated. The Genoa conference from April 10 to May 19 1922 embodied European hopes to restore an international gold standard. This conference, bringing together the representatives of 30 European countries and the British dominions, implemented a GES which enabled countries to hold sterling and dollar balances as official reserves in their central bank, in lieu of gold. This intuitional arrangement “should embody some means of economizing the use of gold by maintaining reserves in the form of foreign balances” (Resolution 9 of the Genoa Agreements) and was to provide a means to stabilize the

exchange rate without gold flows. Countries were also empowered to issue paper money covered by foreign assets since they were part of the official reserves, while a limit was set to the uncovered gold issue. In the resolutions, the development of the GES as a means to provide international liquidity was coupled with the generalization of monetary management by central banks. Under the Genoa Agreements (Resolution 11, section 7), “credit will be regulated (...) with a view to preventing undue fluctuations in the purchasing power of gold”. This meant that the new official duty of the central bank was to lead a countercyclical monetary policy in order to avoid world deflation at a time when gold was scarce. The final step was the implementation of monetary cooperation among central banks, under the leadership of the Bank of England (called “Resolution 12”). The aim of the agreement was to avoid competition among central banks to reconstitute their gold reserves which would have put even greater strain on world prices. By stabilizing the purchasing power of gold, large balance of payments imbalances and variations of gold reserves could be averted.

Actually the resolutions taken during the Genoa conference reflected Hawtreys's views. Ever since 1919, Hawtreys had influenced policymakers during his tenure as Director of Financial Enquiries and he was the sole economist at the British Treasury. His monetary theory of the cycle deeply influenced British officials such as Basil Blackett and Otto Niemeyer, respectively Controllers of Finance of the British Treasury from 1919 to 1922 and from 1922 to 1927, and Montagu Norman, then Governor of the Bank of England. Hawtreys's prescriptions for the establishment of a managed international gold standard brought about consensus between Blackett and Norman. Howson (1985, p. 156) points out that Hawtreys was sent to the Genoa conference as part of the British delegation; his official remit was to persuade other European delegations of the merit of the British plan – shaped by Hawtreys himself. As seen in the previous section, Hawtreys's international monetary theory was grounded on the asymmetric nature of the international gold standard, arising out of the leading position of London as an international financial center. Since the instability of British credit was international and was at the root of global cycles, the Bank of England was, in Hawtreys's view, in the best position to manage the international monetary system. His aim was to avoid recourse to classical monetary policies as advocated

by economists like Rist. For Hawtrey, under the pre-war gold standard system, the use of discount rate policies designed to protect the gold reserve engendered credit cycles:

I regard the Credit Cycle as having been the form in which the evils of monetary instability made themselves felt under the pre-war international gold standard. (Hawtrey, 1932, p. 384)

At the core of Hawtrey's proposals was a solution to manage as well as could be a system characterized by asymmetry. First, Hawtrey supported the return to the GBS in England at the pre-war parity.¹⁸ He expressed his view to Winston Churchill in 1924 during the debate initiated by the Bradbury-Chamberlain Committee. For peripheral countries, Hawtrey advocated a more flexible international monetary system that provided sufficient international liquidity to avoid resorting to gold. Under the GES, countries would hold foreign currencies redeemable in gold to stabilize their exchange rates without gold reserves. It was a way, Hawtrey claimed, to avoid central banks replenishing their gold reserves in the 1920s, which would lead to world deflation. In Hawtrey's words: "If an undue demand for gold is to be avoided, we must have some method of economizing the use of gold as currency" (1922, p. 293). Hawtrey's proposal also restored London's prestige as the international financial center and the power of the Bank of England. This objective was important to Hawtrey because he saw the Bank of England as the best institution to drive the (asymmetric) international system of payments, alongside the Fed.¹⁹ On the one hand, the core countries issued the international currencies used for the settlement of international payments. The monetary authorities' commitment to set the price of gold in their own currency was a guarantee of credibility and security. On the other hand, the peripheral countries had to adhere to the GES: gold was withdrawn from internal monetary circulation and the central banks held reserves partly in foreign currencies redeemable in gold, and partly in gold. In the event of balance of payments deficit, the GES country would sell its foreign-exchange reserve and buy national currency which was in surplus on the foreign-exchange market. In that way, it stabilized its exchange rate. For instance, a

¹⁸ Since the convertibility rule of means of payments into gold, which was the main feature of the GCS, was not a safeguard against price level instability, Hawtrey did not support the official view developed by the 1918 Cunliffe report.

¹⁹ After World War I, faced with the erosion of Great Britain's financial hegemony and with the growing development of the United States as an international financial center, Hawtrey considered that these two financial centers had to manage the international monetary system by a common well defined monetary policy. "It is still true that London predominates in the international credit system. But in one respect there has been a profound change. America is now equipped to play a part." (Hawtrey, 1929, p. 78).

depreciation in foreign exchange could be corrected by sales of foreign currencies (sterling or dollars) and purchases of domestic currencies, instead of waiting for the exchange rate to reach the gold point and then exporting gold. This generalization of the GES system was based on the discretionary policy of the central banks: balance of payments re-equilibrium should not result from gold flows.

When the exchanges become adverse the central bank can come into the foreign exchange market and either offer the actual foreign bills for sale, or itself draw bills on the foreign center in favour of traders who want to remit thither. (Hawtrey, 1919a, p. 148)

This system [the gold exchange standard] has the double advantage that it acts on the exchanges even more directly and quickly than the export of gold, and that the bills or other foreign assets, unlike gold, yield interest. (Hawtrey, 1919a, p. 149)

In Hawtrey's view, gold as international liquidity had to be saved, and foreign assets used instead to stabilize the foreign-exchange rates. The GES was a monetary system which enabled this. Hawtrey hoped that gold could be saved so as to allow the Bank of England or the Fed to be able to lend in last resort in the event of financial distress. Besides being a pool of gold reserves, those central banks should cooperate on the direction of their monetary policies in order to stabilize prices and promote employment and new investments. In this respect, Hawtrey can be considered as a theorist of "managed money". The Genoa resolutions provided the institutional framework in which countries were supposed to return to gold. Not wanting to be under British rule, France decided not to sign the agreements in 1922. However, the Sergent Committee recommended stabilizing the French currency by means of foreign sterling-denominated assets. But unlike Hawtrey, Rist considered the GES to be a temporary system until such time as France could afford to return to a full-fledged gold standard.

Rist explained that the GES "can only be an exceptional regime for which, for the health of the great money markets, the sturdy regime of the gold standard must be substituted as soon as can be. The Bank [of France] will issue francs as before, but against gold and not merely against foreign currencies" (our translation, 1928, p. 102). As a key member of the Sergent Committee, Rist pointed out that to stabilize the franc, the Bank of

France had to accept to buy and sell foreign currencies. On that point, Rist adhered to the GES principle such as it was proposed in 1922:

Monetary stabilization involves the freedom for the Bank [of France] to issue notes to the extent that they are backed by stable foreign currencies or gold. Such an issue, which is in no measure inflation since it is totally backed, is simply equal to an increase in reserves. (our translation, Rist, 1925, p. 20)

But the accumulation of foreign currencies had to be limited in time since the Bank of France would have to replenish its metallic reserve and abide by the automatic and symmetric operation of the international gold standard. On Rist's view of how the gold standard operated, an outflow of gold, following the fall in the exchange rate, would cause a credit restriction in the country that raised all of the market rates. Under the GES, if the Bank of France sold francs and bought sterling on the foreign-exchange market to limit the rise in the exchange rate, its foreign-exchange reserve would increase. But without any gold movements between the two countries, the Bank of England would not be compelled to raise its discount rate as it should have done if an outflow of gold had occurred from Britain to France. Under the GES, central banks had too much scope for conducting discretionary policies. According to Rist:

(...) gold does not move spontaneously from London to Paris. If the exchange rate becomes highly favorable in Paris, this is reflected only in an inflow of foreign currency to the central bank. The amount of available capital and the credit base on which it depends remain unchanged in London. What is called "import of foreign currency" is in reality a credit provision in a foreign bank from the "exporter" to the "importer". No rise in the interest rate occurs in the financial center where the foreign exchange has become unfavorable (our translation, Rist, 1928, p. 101)

Under the GES, the absence of gold flows threatened the entire architecture of the international gold standard. To Rist's mind, the economy of gold and the creation of an international inverted pyramidal credit structure based on the gold reserves of the core countries contradicted the classical operation of the gold standard. Therefore, the monetary legislation of 1928 officialized the return to the gold standard in France and cancelled the previous monetary arrangement that enabled the Bank of France to consider foreign-

exchange reserves as a part of its official reserves. From mid-1928, the principle of economizing gold to avoid world deflation was violated by the Bank of France.

Hawtrey claimed that the malfunctioning of the gold standard was mainly due to the behavior of the Bank of France which “brought the state of equilibrium to an end, by selling off some seven billion of foreign exchange in the early months of 1929 and acquiring gold instead” (1934, p. 662). Rist refuted such criticism of the Bank of France’s policy. He justified the large flow of gold by the necessity for the Bank of France to replenish its gold reserves to respect its commitment to convert money into gold. Since 1928, the Bank of France was under an obligation to hold at least 35 percent of its total liabilities in the form of gold reserves. According to Rist:

The Bank [of France] has proceeded to the repatriation of a part of its foreign assets to the extent only that it was necessary to increase gold reserves to the level of statutory requirements and with the sole ulterior motive of letting gold flow out if circumstances so required, without the legal provision being threatened and public opinion alarmed (our translation, Rist, 1930, p. 115)

To comply with the 1928 monetary statute, the central bank had to clear its foreign assets against gold.

The second reason justifying the wholesale conversion of foreign balances and gold accumulation was grounded in the state of the French balance of payments. From 1928 onward, the restoration of confidence in the French currency resulted in the repatriation of French capital from England to France. This inflow of capital raised the French exchange rate as far as the gold import point at which juncture arbitragers made profits by selling sterling to buy gold in London and investing it in France. Philippe Schwob described this mechanism:

The owners of capital and entrepreneurs in general had no further interest in exporting their money abroad. (...) Not only did the clandestine export of capital cease, but people even hastened to bring back the capital that had already been placed there, for fear of making losses or increasing those they had already incurred. To this was incurred an inflow of foreign capital. (...) The normal operation of the gold standard should tend to restore equilibrium in

the balance of payments, through a movement of gold into France, and this, indeed, is what happened. (Schwob, 1935, p. 292)

This mechanism was familiar to Rist. He observed a reinforcement of those arbitrage operations on foreign-exchange markets in the aftermath of the 1929 crisis that intensified the flight from dollar- and sterling-denominated assets into French currency:

In fact, circumstances, for a year, that is to say since the beginning of the crisis in New York, have been such that instead of gold going out, it has been coming in. But here the Bank [of France] has remained passive. Gold imports have been the result of arbitrage alone. (our translation, Rist, 1930, p. 115)

So economic advisers such as Rist and Schwob refuted accusations that the Bank of France was in any way to blame. Gold inflows that occurred between late 1929 and 1931 were the result of two major forces: arbitrages between foreign-exchange markets and gold markets and the removal of its right to deal in foreign exchange and to hold it as official reserves. Interestingly Rist considered that the Bank of France had played by the rules of the game because it lowered its discount rate while a large amount of gold was coming in. The error the Bank of England made was to have used the discount rate for other motives than protecting the gold reserves. The Fed lowered its discount rate from 6 percent (October 1929) to 1.75 percent (July 1931), and the Bank of England reduced it from 6.5 percent to 2.5 percent over the same period (*Banking and Monetary Statistics*, Board of Governors of the Federal Reserve System, 1943, pp. 441 and pp. 656-9). The fact that the French, British, and US discount rates moved downward while gold flowed from Britain to the US and France reinforced France's accumulation of gold (see **Annexe 3 : Évolution des taux d'escompte de la FRBNY, de la Banque de France et de la Banque d'Angleterre, 1925-1931**). In refusing to abide by a sound gold-standard policy, Britain accentuated gold inflow to France. The Bank of England should have raised its discount rate in order to protect its gold reserves and limit the effect of their depletion on the money supply:

Considering these gold movements, what policy has been followed? America and Britain have each adopted different attitudes. The United States did not object to the sending of gold to France and even encouraged it (from 1928 to 1930). As for Britain, its policy has been to

maintain money in the greatest possible abundance throughout the period on the London market and to raise its discount rate as seldom as possible. Far from resisting the outflow of gold by the classical processes, either by maintaining an official rate or by tolerating very wide deviations between the official rate and the non-bank rate, it has allowed gold to flow out virtually unopposed. Its goal has been to avoid interfering with a commercial or industrial situation on which the consequences of the 1925 stabilization, at too high a rate, have weighed heavily. (our translation, Rist, 1933, pp. 169-170)

To conclude, Rist and Hawtrey could not agree on the policy of the Bank of France since their analysis differed as to the role of monetary policy under a gold standard system. Rist believed that monetary policy should defend the stock of gold. The Bank of France converted its sterling assets into gold in the late 1920s because the point of import of gold had been reached. The Bank of France reduced its discount rate but it did not increase the issue of bank notes in France. Hawtrey on the contrary supported the intervention of the central bank on the foreign-exchange market. That was the advantage of adopting a GES. Under this system, central banks could stabilize their exchange rate without any gold reserves. As an aside, banks were less constrained to expand credit than under the pre-war gold standard. Hawtrey believed that the GES was best suited for dealing with international asymmetry. In his view, the financial centers issued the key currencies and should agree to follow a common monetary policy. Such cooperation would reduce price volatility and gold movements. While Hawtrey considered that the leading central banks (the Fed, the Bank of England, and the Bank of France) should coordinate their monetary policy in order to stabilize commodity prices, Rist believed they should confine themselves to managing and protecting their gold reserves.

2.7 The rigidity of the French monetary system: the case of open-market operations

So far, we have considered two main factors which could have explained why the Bank of France converted foreign exchange into gold and received large gold inflows from 1928 to 1931. The first explanation was institutional, relating to the new 1928 monetary legislation; the second was economic since the franc/sterling exchange rate exceeded the point of import of gold, and arbitrages brought gold into France through no fault of the

Bank of France as Rist and Schwob explained. Even if the Bank of France was supposed to play by the rules of the game and effectively lowered its discount rate, this policy did not impact France's money supply. That was why Hawtrey thought that the Bank of France should use another monetary tool than the discount rate. For Hawtrey, the Bank of France bore a heavy responsibility for two main reasons: first, the Bank sterilized gold in order to respond to sustained demand for bank notes; and second, open-market operations were prohibited in France. Eichengreen supports Hawtrey's criticism of the Bank of France (1986, pp. 72-73): "of the various channels through which France ostensibly influenced gold inflows ... the absence of open market operations ... [is] an economically important determinant of the central bank reserve ratio" (Eichengreen, 1986, p. 79). Eichengreen argues that the Bank of France could have prevented such a massive accumulation of gold if it had been allowed to conduct open-market operations. However, because of the inflationary episode in the 1920s through the *avances* by the Bank of France to the Treasury, French policymakers were reluctant to relax credit by making open-market purchases (Eichengreen, 1986, p. 80).

Hawtrey explained that the Bank of France had several advantages in accumulating gold. First, because government debt "tied the Bank's hands" (Hawtrey, 1932, p. 289), and second because there was a scarcity of eligible French bills (Hawtrey, 1932, p. 17). Because discount and advances were the only elastic elements in the French currency, the demand for additional notes in 1928 could not be satisfied unless banks acquired an additional reserve of gold:

In the case of the Bank of France the sterilization of gold (up to October, 1931) was not due to open market dealings, but to their absence. The Bank itself was quite passive in the matter. It was the Government and the Legislature which paid off the Government's debt to the Bank, and so tied the Bank's hands that it could not meet the imperative demands of the community for additional currency except by accumulating gold. (Hawtrey, 1932, p. 289)

If the Bank of France had been allowed to back its note issue with Treasury bills, the demand for gold in France would have been diminished:

If the Bank had been enabled to acquire some other form of backing (for example, French Government securities), its need for gold would have been correspondingly diminished. By

such means the absorption of gold could have been diminished to an indefinite extent. It was the absence of such power that must be regarded as the real cause of the absorption of gold on so colossal a scale. (Hawtrey, 1927, p. 119)²⁰

The deflationary measures adopted by the French Government in 1927–1928 meant that prices fell more than wages in France, so the public demanded notes to increase their cash balance (Hawtrey, 1932, p. 17). Hawtrey explained also that if the use of checks or other methods of economizing currency had been common in France, the demand for bank notes would have been lower (Hawtrey, 1932, p. 16). It was customary, in France, Hawtrey claimed, for people to keep a larger proportion of their resources in the form of currency instead of depositing them with banks (Hawtrey, 1932, p. 198).

The discount rate was not an efficient instrument, at the end of 1928, with which to provide bank notes to French traders because of the low level of investments in France, which created a scarcity of French bills (this idea is supported by Nicolas Barbaroux, 2013, p. 106). Rist therefore refuted the accusations leveled at the Bank of France's monetary policy. The Bank of France did not accumulate gold on purpose. Gold imports were the result of falling commodity prices and investments in France. The Bank of France's portfolio shrank from 1929 because of the scarcity of French bills, in spite of a subsequent reduction of the discount rate:

When an inflow of gold occurs in times of economic depression (the period from 1890 to 1895 is a period of deep depression), the central bank is unable to increase its credit, however much its reserves may increase at the same time. The reason is simple: a bank of issue *normally confines itself to meeting the demand for credit made on it*; in times of depression, such demand is not forthcoming. (our translation, italics in the text, Rist, 1930, p. 107)

Despite the insistence of “many people” (Rist, 1933, p.125)²¹ to allow the Bank of France to engage in open-market operations, Rist remained convinced that it was a bad

²⁰ Hawtrey presented the same argument in *The Art of Central Banking*: “... the Bank [of France] was narrowly circumscribed in regard to its investments. Apart from certain statutory reserves which were required to be invested in Rentes, it had no power to buy Government securities. It could discount bills which fulfilled the prescribed conditions (two French signatures, and either a third signature or in certain cases suitable collateral), and it could make advances on gilt-edged securities with a margin. But it could not *take the initiative* in these operations. It could not buy bills in the open market.” (Hawtrey, 1932, p. 197, Hawtrey's italics).

²¹ “the suggestion made by many people to enforce certain methods on the Paris market that have become commonplace in recent years in New York and London alike seems to me in no way felicitous: it involves the

idea. He saw the purchase of Treasury bonds as inflationary and unnecessary. Unlike in Britain and the USA where open-market operations ensured the discount rate policy was effective, France used its discount rate to maintain effective control over its money market.

We have never considered that this [open-market] operation is anything else than inflation followed by deflation – and the inflation created by the issuing houses seems to us even less justifiable than that created by governments (our translation, Rist, 1933, p. 126fn)

Hawtrey's criticism of the Bank of France addressed the lack of open-market operations in France. As already stated, the discount rate policy was an inefficient tool for encouraging new investment because bills were scarce in France:

France was confined to a passive part in the regulation of credit. Changes of Bank rate by the Bank of France had some effect upon the discount market, but only within narrow limits, because they could not be reinforced by an open market policy. (Hawtrey, 1932, p. 199)

While a rise in the discount rate was an efficient policy for curbing excessive expansion of credit, a reduction in the discount rate did not always prevent excessive contraction of credit. The central bank should not only rely on its discount rate when this later was without effect; it should make open-market purchases of Treasury bills. Hawtrey introduced a new channel of liquidity through the government bond market that he believed the Bank of France should have adopted. In the quote below, Hawtrey refers to the "investment market" which is a market for long-term securities.

If the banks fail to stimulate short-term borrowing, they can create credit by themselves buying securities in the investment market. The market will seek to use the resources thus placed in it, and it will become more favourable to new flotations and sales of securities. (Hawtrey, 1950 edition, p. 75, as noted by Sandilands, 2010, p. 334)

The acceptance of the Bank of France's holdings of Treasury bills could have increased note issuing. And such a measure could also have lowered the gold inflows to

purchase and sale of Federal Reserve Bank securities in New York; and in London the purchase and sale of acceptances or Treasury bills by the Bank of England... These methods have resulted to my mind in more drawbacks than advantages in New York by merely delaying the point in time at which the raising of the discount rate produces its effect" (our translation, Rist, 1933, p. 126fn).

France. With the US experience in mind, Hawtrey explained that open market purchases could lead to gold exports:²²

Other central banks are able to exclude gold by buying securities in the market. The “open market” policy of the Federal Reserve Banks has been a conspicuous feature of their regulation of credit during the past ten years. (Hawtrey, 1932, p. 31)

Asset purchases increased the central bank's liability, and also the total of bankers' deposits. The purchase of securities engendered a rise in the price of securities. Because commercial banks and businesses held these securities in their balance sheets, banks were encouraged to make more loans, and could extend their note issuing. Hawtrey had been in favor of the use of open-market operations since the publication of *Currency and Credit* (1919), which was before the date when central banks acquired the right to implement them. He considered that it was a key tool for reinforcing discount-rate policies.²³ The following quote comes from the conclusion of his *Art of Central Banking*:

The remedy is to be found in what in America is called an ‘open market’ policy, the purchase of securities by the Central Bank in the open market. Every asset creates a liability, and the liabilities of a Central Bank are money. When the Bank of England buys securities, the total of bankers' deposits is increased. The joint-stock banks, holding more cash, become ready to increase their advances and discount. Thus when the stimulus of cheap money offered to the *borrower* is insufficient, the stimulus of redundant cash reserves can be applied to the *lender* (Hawtrey, 1932, p. 447)

The use of open-market operations was debated within the Bank of France. While some economists such as Pierre Quesnay – influenced by Benjamin Strong, then Governor of the Federal Reserve Bank of New York (Dal Pont Legrand and Torre, 2014, p. 23) –

²² Eichengreen (1986: 72-73) reaches the same conclusions, explaining that open-market operations would have succeeded in increasing the money supply and so stimulating gold re-exports, but institutional arrangements in France prohibited the use of such instruments.

²³ In *The Art of Central Banking*, Hawtrey explained that the operation of “borrowing on Consols” can be considered as the first attempt to conduct open-market operations in England. Horsley Palmer, Governor of the Bank of England from 1830 to 1833, presented the advantage of “borrowing on Consols”. The practice was subtle. The Bank of England was not merely selling Consols at a fixed price against Bank notes, it also hedged against the risk of a capital loss. At the same time, it was selling Consols (for a limited time), the Bank of England was buying an equal amount forward. “The net result was that the Bank borrowed from the Stock Exchange for a fortnight or less at a rate of interest equal to the contango rate” (Hawtrey, 1932, p.151). These operations, rarely practised by the Bank of England, were conducted for the first time in 1848 according to Hawtrey. By “borrowing on Consols”, the Bank of England succeeded in borrowing “to hundred millions”. Such operations were aimed at increasing loans to the Government.

supported active control of the money market through open-market operations, the official view of the Bank of France was grounded on Rist's conviction that such a channel for monetary policy would result in inflation and public indebtedness. Rist claimed "inflation was created in the form of the advances successively consented by the Bank of France to the government" (1927, p. 60, quoted by Barbaroux, 2014, ft3, p. 5). By increasing the level of liquidity through open-market purchases while the gold outflows should have forced the Bank of England to contract credit, the British monetary authorities failed to abide by "the rule of the game". According to Barbaroux (2014, p. 15), Rist's position, which was shared by many of the Bank of France's officials, reveals the confusion between open-market operations and the system of advances to the Treasury during the interwar years. Rist pointed out that since all countries returned to the gold standard, the decline in world prices was in the normal course of events. Central banks should not seek to counteract this normal phenomenon. Deflation was the expected consequence of a period of over expansion of credit. Indeed, since the early 1920s foreign monetary policies "had artificially increased the credits granted" (Rist, 1931b, p. 342). Open-market operations were seen as unnecessary and even dangerous since they would counteract the deflationary process. Rist therefore did not approve the 1922 Genoa resolutions directly influenced by Strong (and also Hawtrey)'s view:

He [Strong] thought that the power of the major banks of issue and the possibilities of development of credit would now stabilize prices more easily than was possible before the war. (Rist, 1931a, p. 138)

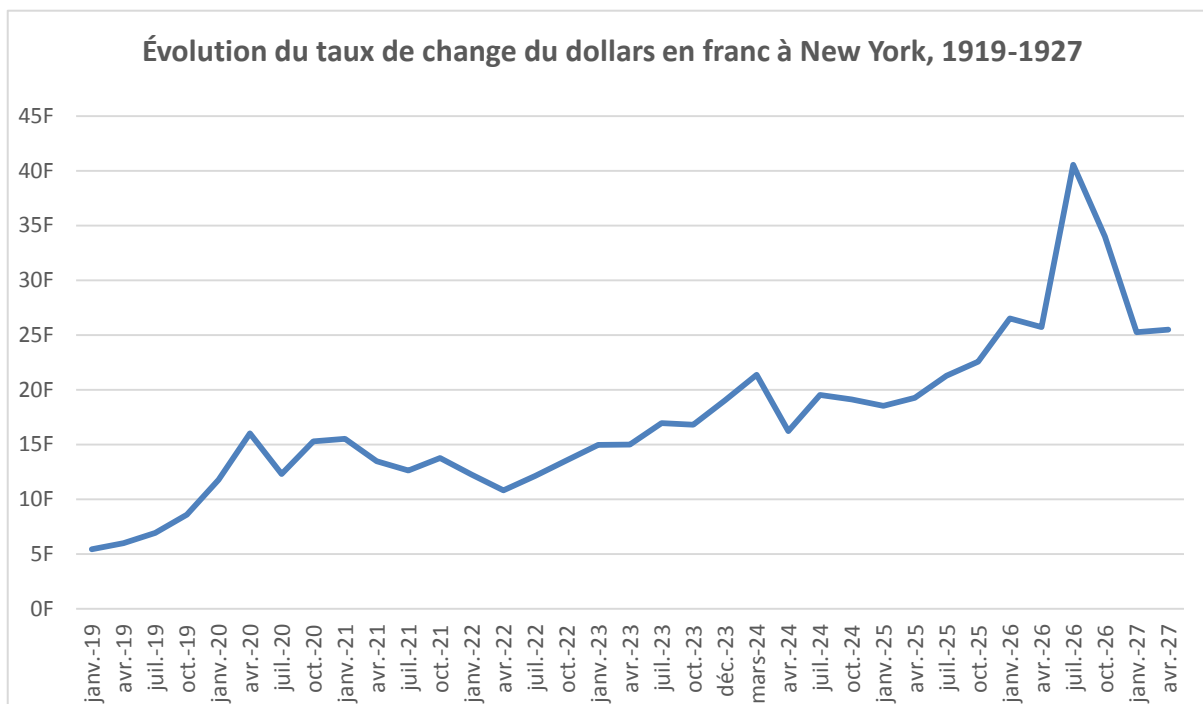
2.8 Conclusion

The failure of central banks to cooperate is often thought to have engendered the collapse of the gold-standard system. This chapter provides an analysis of the objectives and tools of the central bank under a gold-standard system through the works of Rist and Hawtrey, two leading economists of the interwar period. We take those economists to be representative of the outlooks of French and British policymakers who failed to reach agreement as to the conduct of monetary policy between 1925 and 1931. Hawtrey and Rist's disagreements were rooted in their different views of the role of central banks. Rist believed that the gold standard, if adopted by all countries, was an efficient way to stabilize

internal and external prices, and also, a sound system for avoiding a high level of inflation. The “automatic adjustments” of central banks’ discount rates, if countries played by “the rules of the game”, was beneficial to international trade according to Rist. The gold standard was a way to chasten excessive credit creation, to limit over-production, and also to prevent excessive swings in exchange rates between currencies. This is one of the reasons why Rist considered such a system a sound monetary system, especially at a time when world inflation was worrying policymakers. On the other side, Hawtrey considered that countries would be too tightly constrained if they adopted the pre-war gold standard. This monetary system compelled countries to hold large stocks of gold and so to conduct restrictive monetary policies, leading to world deflation.

These restrictions were even more difficult in debtor countries which did not hold large stocks of gold, which was the predicament of almost every country except France and the United States, which, in 1931, together held 60 per cent of the world’s monetary gold. Hawtrey claimed that the GES was a better system, because central banks could directly intervene on exchange markets without using gold. Rist and his colleague Schwob justified the large flow of gold into France from 1929 to 1931 by arbitrages on foreign-exchange markets. Hawtrey, however, rejected the idea that the Bank of France played a passive part in the accumulation of gold. He made several accusations. The first dealt with the habits of the French people, and the second, more importantly, dealt with the lack of monetary instruments in France. Hawtrey believed that gold was needed in France because wages were higher than prices, so the French needed currency to increase their cash balances. In addition, investments were depressed because of the deflationary measures adopted by the French Government, and as a consequence the supply of bills was low. The additional demand for bank notes could therefore not be satisfied by discounting bills, and the discount rate policy was an inefficient tool. Allowing the Bank of France to purchase Treasury bills might have enabled banks to extend their issue of bank notes without having to increase their gold reserves. Because French economists such as Rist were reluctant to allow the Bank of France to have recourse to open-market operations, Hawtrey considered that France – and its economic advisers – played a major part in deepening the Great Depression.

Annexe 2 : Analyse du taux de change \$/F, 1919-1927



Source : Board of Governors of the Federal System (1943), *Banking and Monetary Statistics*, p. 670.

Dans les années 1920, l'instabilité des changes des devises explique la volonté affichée des pays européens de retourner à l'étalon-or. Selon Nurske (1944, pp. 117-8), l'expérience française semble avoir confirmé l'idée selon laquelle les mouvements spéculatifs accentuent les déséquilibres plutôt que ne les réduisent : « the dangers of (...) cumulative and self-aggravating movements under a regime of freely fluctuating exchanges are clearly demonstrated by the French experience of 1922-1926 ». Comme le rappelle Bertrand Blancheton (2001, p. 255), le franc a subi deux crises spéculatives sur la période ; la première de décembre 1923 à mars 1924, et la seconde, plus aiguë, de 1925 à juillet 1926. Pour étudier les phases d'instabilité du taux de change français, étudions le cours mensuel du dollar en francs à New York représenté ci-dessus. En effet, alors que la livre sterling a

fluctué jusqu'en mai 1925, date à laquelle le Royaume-Uni a restauré l'étalon-or, le dollar a, quant à lui, continué d'être défini en un poids fixe d'or pendant toute la période. Par conséquent, pour faciliter les comparaisons dans le temps, nous utilisons le taux de change du franc en dollar côté à l'incertain.

Jusqu'au début de l'année 1919, le cours du dollar en francs s'est maintenu au pair d'avant-guerre, soit environ 5,18F. En effet, les prêts alliés octroyés par les États-Unis et le Royaume-Uni permettaient de financer les importations françaises, nécessaires à l'effort de guerre, tout en maintenant le taux de change à un niveau élevé alors que l'inflation avait grevé près de la moitié du pouvoir d'achat du franc. Selon Jean-Charles Asselain (1984, Vol.2, p. 20), les prix à la consommation avaient plus que doublé entre 1913 et 1918. À partir de 1919, le soutien financier des alliés cesse et le déficit français se creuse de 1145% (Sauvy, 1984, Vol.3, p. 389). L'excès d'offre de francs sur le marché des changes se traduit par un décrochage du cours du franc : 1\$ s'échange contre 8,06F en octobre 1919, et jusqu'à 16,01F en avril 1920. La tendance s'inverse entre le milieu de l'année 1920 et avril 1922 ; le taux de change du franc s'appréciant pour plusieurs raisons. Premièrement, le gouvernement français s'engage à rembourser les avances faites par la Banque de France – qualifiées d'inflationnistes – au rythme de 2 milliards par an, selon les modalités définies par les conventions François-Marsal d'avril et décembre 1920 (Blancheton et Marc-Alexandre Sénégas, 2011, p. 120). Le remboursement des avances devait donc se traduire par une réduction de la circulation fiduciaire. Deuxièmement, la crise mondiale du début des années 1920 impacte l'économie française, tendant à faire baisser le niveau des prix nationaux ainsi que le déficit du commerce extérieur, qui retrouve quasiment son niveau d'avant-guerre. Troisièmement, de nouvelles taxes sont levées pour réduire le déficit budgétaire et, à terme, la dette publique. Cependant, l'espoir que les réparations allemandes échoient sous peu cache l'ampleur du dérapage budgétaire français. Ainsi, l'opinion publique nationale et étrangère est convaincue que la France va restaurer l'étalon-or à la parité d'avant-guerre, ce qui incite les spéculateurs à acheter du franc au comptant en espérant faire une plus-value à terme (Eichengreen, 1986, p. 74). Dès lors, sous l'effet de toutes ces forces, l'excès d'offre de francs se réduit sur le marché des changes, ce qui tend à apprécier le taux de change du franc. Ainsi, en avril 1922, 1\$ ne s'échange plus que contre 10,83F.

À partir de 1922, le taux de change du franc entame une nouvelle dépréciation. La crédibilité de la France concernant le retour à l'étalon-or est sérieusement érodée par une aggravation du déficit public. Le retard du versement des réparations allemandes ne permet pas de mettre en œuvre l'ambitieux programme de reconstruction du pays (Carl Bergmann, 1927, pp. 133-6). Les opérateurs de marché craignent que le gouvernement français ait une nouvelle fois recours aux avances de la Banque de France pour financer son déficit budgétaire. Même si la France décide d'occuper la Ruhr en janvier 1923, l'hyperinflation allemande fait prendre conscience aux autorités françaises ainsi qu'aux marchés que l'Allemagne ne paiera pas sa dette. La dépréciation du franc s'accélère : 1\$ vaut 16,81F en octobre 1923 ; 19,05F en décembre 1923 ; pour atteindre 21,36F en mars 1924. Ce premier épisode est considéré comme la première crise du change français. Selon Jean-Claude Debeir (1978) et Jean-Noël Jeanneney (1978), cette dernière est imputable aux opérateurs allemands, autrichiens et néerlandais qui, suite à la stabilisation monétaire en Europe centrale et à la mise en place du Rentenmark pour contrer l'hyperinflation allemande, ont attaqué le franc afin de faire une plus-value. Techniquement, à court terme, les spéculateurs empruntaient des francs pour les convertir en livres, florins et francs suisses. En parallèle, ils se portaient vendeurs de francs sur le marché à terme. Ces deux effets combinés ont déprécié le taux de change du franc sur le marché au comptant et à terme. Le pari a été gagnant puisqu'entre décembre 1923 et mars 1924, les spéculateurs pouvaient obtenir davantage de francs avec leurs devises, leur permettant de rembourser leurs emprunts en francs et d'empocher une plus-value. Malgré une hausse du taux d'escompte de la Banque de France de 5% à 6% en janvier 1924 afin de décourager les spéculateurs, le taux de change du franc continue de décrocher. Seule l'intervention directe des autorités monétaires françaises sur le marché des changes a permis de redresser la situation (Antoine Autier, 2012, pp. 41-3). Au cours du mois de mars 1924, mandatées par la Banque de France, des banques commerciales rachètent massivement du franc contre des dollars et des livres, préalablement empruntés auprès de J.P. Morgan (100 millions de dollars) et de banques britanniques (4 millions de livres). Ces emprunts anglo-américains étaient couverts par l'encaisse-or de la Banque de France (Blancheton et Sénégas, 2011, p. 121). L'opération a été un succès puisqu'en avril 1924, le taux de change \$/F est à 16,24, stabilisant le taux de change à terme. L'octroi de ces prêts était conditionné par l'engagement du gouvernement français, mené par Poincaré, de lever de nouvelles taxes afin de rééquilibrer les comptes

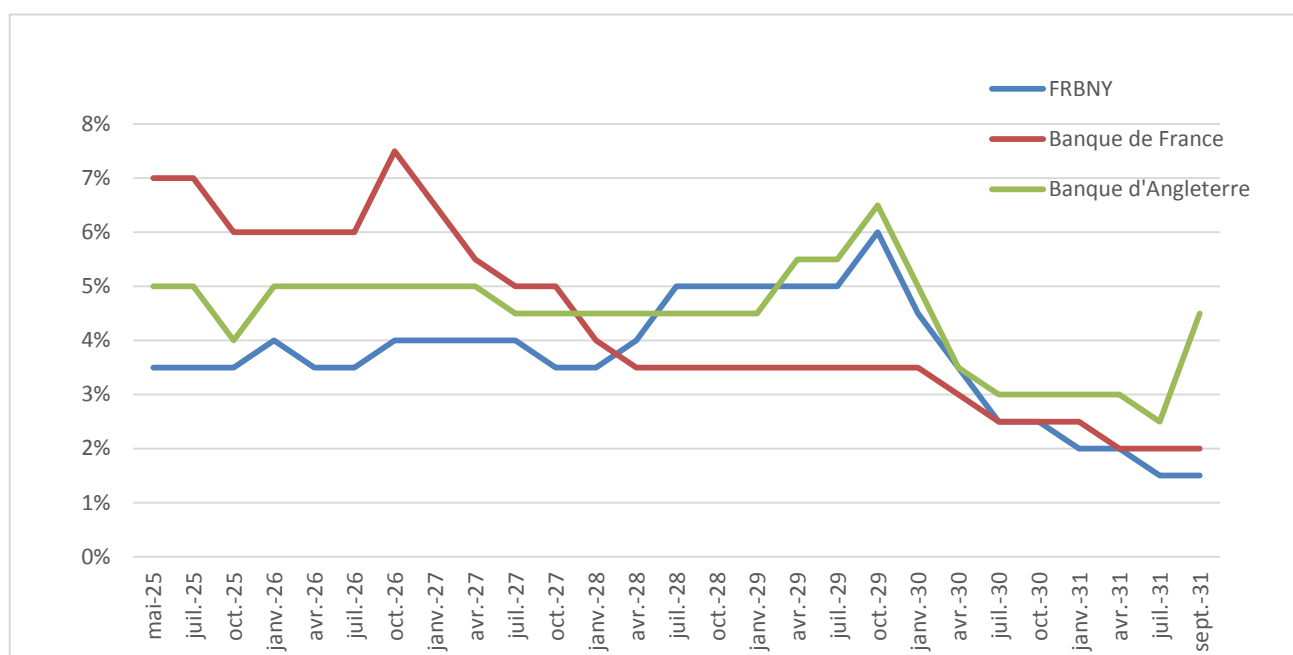
publics. Malgré cette stabilisation de façade, à la fin de l'année 1923, le Trésor français n'a pu rembourser les avances de la Banque de France que d'un montant de 800 millions de francs, bien loin des 2 milliards prévus initialement.

Cette opération coordonnée par les autorités monétaires françaises a néanmoins permis aux responsables politiques de prendre conscience de la nécessité d'un assainissement des finances publiques. En mai 1924, le Cartel des Gauches remporte les élections et le gouvernement Herriot est constitué. Alors qu'il s'engage à limiter l'inflation, le nouveau gouvernement veut limiter la circulation fiduciaire à 41 milliards de francs. Cependant, ne souhaitant pas imposer davantage le capital de peur de provoquer sa fuite vers l'étranger, le gouvernement est contraint et forcé de monétiser une partie de la dette publique, accroissant le montant de la circulation fiduciaire. Pour ne pas effrayer l'opinion et entacher la crédibilité du gouvernement, entre mars 1924 et avril 1925, la Banque de France publie de faux bilans hebdomadaires. Alors que le montant officiel de la circulation fiduciaire était estimé à 40,9 milliards de francs en avril 1925, le montant effectif était en réalité de 42,5 milliards (Blancheton et Sénégas, 2010, p. 125). Le scandale éclate en avril 1925 et sape la confiance dans le franc, accentuant encore plus sa dépréciation (Eichengreen, 1986, p. 76). De 1925 à juillet 1926 s'ouvre la deuxième grande vague spéculative contre le franc, bien plus importante que la première. En effet, entre avril 1925 et juillet 1926, le franc a perdu 52% de sa valeur, passant de 19,27F pour 1\$ à 40,55F pour 1\$. Comment expliquer une telle chute du franc ? Tout d'abord, depuis 1924, la balance commerciale est excédentaire (Sauvy, 1983, Vol.3, p. 339). En revanche, après une légère déflation entre 1920 et 1922, l'inflation repart. Entre 1922 et 1926, les prix à la consommation doublent (Asselain, *ibid.*). Malgré une inflation importante, la chute du change, servant traditionnellement de baromètre à l'inflation en régime de changes flottants, ne peut à elle seule s'expliquer par le décalage entre la valeur interne et externe de la monnaie. La dimension psychologique semble avoir été un facteur fondamental pour expliquer la chute du franc. En effet, les problèmes liés à la gestion des prêts interalliés, aux réparations allemandes et à l'occupation de la Ruhr entament sérieusement l'espoir d'une possible amélioration des finances françaises. Le scandale des faux bilans de la Banque de France, masquant la croissance de la circulation fiduciaire permise par une augmentation des avances au Trésor, a lui-aussi contribué à affaiblir la crédibilité de la France. Enfin,

l'incertitude quant aux mesures fiscales devant être mises en œuvre par les gouvernements successifs et le poids de celles déjà promulguées renforcent le sentiment de défiance vis-à-vis de la France. Comme le souligne Albert Aftalion, tenant de la théorie psychologique du change : « A tort ou à raison, les gouvernements au pouvoir du début de 1925 à juillet 1926, les partis formant la majorité au Parlement, parti radical et parti socialiste, les mesures fiscales déjà adoptées et qui frappent lourdement les capitaux mobiliers, plus encore les mesures annoncées ou redoutées épouvantent les détenteurs de capitaux. La fuite devant la monnaie se combine avec la fuite devant le fisc » (Aftalion, 1930, p. 224). Les anticipations des opérateurs de marché sur l'évolution de la situation économique française ont clairement joué dans le sens d'une fuite des capitaux.

En juillet 1926, Poincaré revient au pouvoir pour présider le gouvernement d'union nationale. Connu pour sa rigueur budgétaire, la « simple » nomination de Poincaré comme Président du Conseil et Ministre des Finances suffit à mettre fin à la dépréciation du franc, qui entamera à partir de juillet 1926 une appréciation. L'arrêt de la fuite des capitaux est la cause principale de la fin du décrochage du franc. En l'espace de six mois, grâce à la politique de stabilisation du franc voulue par le comité des experts, le taux de change \$/F se stabilise à 25,26F. Jusqu'au retour officiel de la France à l'étalon-or en août 1928, ce taux restera stable.

Annexe 3 : Évolution des taux d'escompte de la *FRBNY*, de la Banque de France et de la Banque d'Angleterre, 1925-1931



Source : Board of Governors of the Federal Reserve System (1943), *Banking and Monetary Statistics*, pp. 440-1 et pp. 656-9.

Ce graphique présente l'évolution des taux d'escompte de la Réserve Fédérale de New York (FRBNY), de la Banque de France et de la Banque d'Angleterre entre mai 1925 – date de retour du Royaume-Uni à l'étalon-or – et septembre 1931, lorsque le Royaume-Uni suspend la convertibilité-or de la livre. Ce graphique vise à illustrer la politique monétaire de ces trois banques centrales pendant la période d'étalon-or (1925-1931) sous le prisme de la variation du taux d'escompte. Même si nous n'analysons qu'un seul instrument de la politique monétaire, il est intéressant de noter que le développement de l'open-market était

source de débat à l'époque. En effet, les réserves fédérales régionales américaines¹ découvrent accidentellement la politique d'open-market au début des années 1920 en achetant des titres publics afin d'augmenter leurs revenus ; achats influençant les taux d'intérêts à court terme. Benjamin Strong, alors gouverneur de la FRBNY, prend conscience que l'open-market est un instrument efficace de la politique monétaire pour agir sur les réserves bancaires et le crédit, et donc sur la conjoncture et le niveau des prix (Ann-Marie Meulendyke, 1998, p. 25). La volonté de Strong de développer cet instrument pour toutes les réserves fédérales a donné lieu à une confrontation avec Adolph Miller, président du *Board of Governors* et adepte de la théorie des effets réels, qui considérait que le rôle de la banque centrale était de répondre aux besoins du commerce sans chercher à en réguler le niveau (Robert L. Hetzel, 1985, pp. 4-5 ; Meltzer, 2003, pp. 138-9). En France, la monétisation de la dette publique, via les avances de la Banque de France au Trésor, fige le débat sur l'open-market qui est vue comme inflationniste. La position officielle, incarnée par Rist, ne semble pas faire la distinction entre le marché primaire, où les titres publics sont émis, et le marché secondaire qui met en relation les acheteurs et vendeurs de titres déjà émis. Au sein de la Banque de France, Pierre Quesnay, alors influencé par Strong (Dal Pont-Legrand et Torre, 2014), critique la position officielle de l'institution monétaire française, et donc les vues de Rist. Au Royaume-Uni, l'open-market provoque moins de remous et constitue un instrument de la politique monétaire (R.S. Sayers, 1976, pp. 37-43). Malgré ces débats dans les années 1920 quant aux objectifs et instruments de la politique monétaire, le taux d'escompte de la banque centrale constitue toujours un instrument majeur pour les banques centrales.

Entre mai 1925 et juillet 1926, le taux d'escompte de la Banque de France reste à un niveau élevé, notamment pour contrer les vagues spéculatives sur le franc. Au cours des six premiers mois de la stabilisation du franc, entre juillet et décembre 1926, le cours journalier du franc est parfois erratique, expliquant la hausse du taux d'escompte de 6% à 7,5%. À partir de décembre 1927, le taux de change du franc ne cesse de s'améliorer. Jusqu'en août 1928, le taux d'escompte de la Banque de France a diminué, passant de 6,5% en janvier 1927, à 4% en janvier 1928 puis à 3,5% en juillet 1928. Cette baisse continue marque la

¹ Le *Reserve Federal Act* de décembre 1913 crée la banque centrale américaine sous une forme décentralisée. Sous le contrôle du *Federal Reserve Board* basé à Washington, douze réserves fédérales régionales sont créées. Pour une histoire de la jeune Fed, voir Allan H. Meltzer (2003, chapitre 3).

réussite de la politique de lutte contre la spéculation. De l'autre côté de la Manche, la Banque d'Angleterre fixe son taux d'escompte dans le but de baisser le niveau des prix britanniques, conformément à la décision de revenir à la parité or d'avant-guerre. D'ailleurs, la hausse du taux d'escompte de la Banque d'Angleterre de 4% (mars 1925) à 5% (avril 1925) a précédé l'annonce faite par Churchill en mai de restaurer la convertibilité-or de la livre. Suite au retour du Royaume-Uni à l'étalon-or, les entrées de capitaux ont incité la Banque d'Angleterre à abaisser son taux à 4% en octobre 1925. Étant donné la pression quasi-immédiate sur les réserves, le taux a ré-augmenté à 5% en décembre 1925, entraînant la protestation du Trésor britannique quant à l'effet de cette hausse sur le niveau des taux d'intérêts à court terme (Nicholas H. Dimsdale, 1981, p. 324). Sous la pression du Trésor, la Banque d'Angleterre a abandonné sa politique de variation de taux d'escompte. De décembre 1925 à avril 1927, le taux d'escompte est resté à 5%, baissant ensuite de 50 points de base, niveau qu'il conservera jusqu'en janvier 1929. Malgré la stabilité du taux officiel, dont l'objectif était de ne pas accroître le coût de financement du Trésor, la Banque d'Angleterre a développé d'autres techniques pour la conduite de sa politique monétaire, notamment l'accumulation de réserves en dollars pouvant varier en fonction des mouvements de capitaux de court terme (Moggridge, 1971, p. 161). Alors que la pénurie d'or était un problème d'envergure dans les pays européens au cours des années 1920, expliquant d'ailleurs le développement de l'étalon de change-or prévu par la Conférence de Gênes (1922), le stock d'or monétaire n'a cessé de croître aux États-Unis, d'abord au début des années 1920, puis à partir de 1928. De mai 1925 à janvier 1928, le taux d'escompte de la FRBNY est resté relativement stable, admettant une fluctuation entre 3,5% et 4%. Non contrainte par ses réserves officielles, les réserves fédérales n'étaient pas incitées à rehausser leurs taux, préférant la politique d'open-market. Par ailleurs, les autorités monétaires américaines ont plutôt favorisé la force de persuasion – *moral suasion* – afin d'inciter les banques commerciales à rationner ou à accroître leur crédit (Gene Smiley, 1992, p. 2). Suite au boom américain et à la spéculation à New York, faisant hausser les taux des *call loans*, la décision a été prise d'augmenter le taux d'escompte de la FRBNY, passant de 3,5% en janvier 1928 à 5% en juillet 1928, atteignant 6% en octobre 1929.

La hausse du taux d'escompte de la FRBNY a provoqué des tensions sur les réserves de la Banque d'Angleterre, la forçant elle-aussi à augmenter son taux à 5,5% en février

1929. Suite à la faillite de la compagnie Hatry en septembre 1929, les autorités monétaires britanniques sont poussées à hausser leur taux à 6,5%. À partir d'octobre 1929, date du krach boursier à New York, le taux d'escompte britannique n'a cessé de diminuer, pour atteindre 3% en 1930. Cette baisse a été en partie motivée par la politique monétaire outre-Atlantique. Suite au Krack, la FRBNY décide de baisser son taux d'escompte à 4,5% en décembre 1929, atteignant le plancher de 1,5% en septembre 1931. Ces baisses successives s'expliquent par la volonté des autorités monétaires d'assouplir les conditions d'accès au crédit non-spéculatif afin ne pas aggraver les conséquences du krach boursier. En France, la stabilisation du franc à un taux sous-évalué restore la confiance dans le franc et donne un avantage compétitif à la France. À partir de 1929, la France expérimente d'importantes entrées d'or sur la période, comme nous l'avons noté dans le chapitre 2 de cette thèse. Par conséquent, la Banque de France a continuellement baissé son taux d'escompte entre octobre 1929 à septembre 1931, passant de 3,5% à 2%. Cependant, la baisse du taux d'escompte n'a pas permis d'impacter positivement la masse monétaire nationale, étant donné l'absence de demande de prêts de la part des producteurs et investisseurs français de l'époque. De même, aux États-Unis, le stock d'or ne cesse de croître entre 1929 et 1931 sans que cette hausse des réserves n'impacte la circulation monétaire. Entre 1928 et 1931, le taux de couverture-or des engagements de la banque centrale américaine oscillera entre 60% et 70%, contre 20% et 30% pour le Royaume-Uni (Irwin, 2010, p. 14). Les politiques de stérilisation françaises et américaines expliquent l'accumulation massive de l'or, faisant peser le poids de l'ajustement sur les pays déficitaires. Alors que le Royaume-Uni ne cessait de perdre de l'or, au profit de la France et des États-Unis, la Banque d'Angleterre n'a pas augmenté son taux d'escompte, procédure pourtant recommandée par les « règles du jeu » de l'étalon or. Pourquoi ? En réalité, la politique monétaire britannique était mue par des considérations internes : la perte de compétitivité britannique, causée par la surévaluation de la livre, et le chômage grandissant incitaient les dirigeants britanniques à ne pas fixer le taux d'escompte à un niveau trop élevé entre 1929 et 1931. En d'autres termes, le Royaume-Uni a stérilisé ses sorties d'or.

Ainsi, une rapide étude de l'évolution des taux d'escompte révèle la difficulté des arbitrages des principales banques centrales entre stabilité interne et externe. En étalon-or, le taux d'escompte dépendent des mouvements d'or mais aussi des taux étrangers. Alors

que les États-Unis et la France maintenaient des taux bas à partir d'octobre 1929, mais sans répercuter leurs entrées d'or sur la masse monétaire, les mouvements inverses de réserves vers le Royaume-Uni ne se produisaient pas. Dès lors, la Banque d'Angleterre était contrainte de maintenir son taux d'escompte à un niveau faible, ou tout du moins de suivre la dynamique des taux étrangers pour éviter d'une part une pression supplémentaire sur ses réserves, et d'autre part, éviter l'aggravation de la crise économique dans un pays déjà largement affecté par le retour à une parité surévaluée (Eichengreen, 1992, p. 216).

Chapter 3 Reforming the International Monetary System in the 1930s: A study of White’s Monetary Thought

Abstract

Harry Dexter White is known as the Treasury official that led the US delegation during the Bretton Woods conference in July 1944. But his British counterpart, John Maynard Keynes, the foremost economist during the interwar years, put White in the shade. Nonetheless, far from being a bureaucratic and technical economist of the US Treasury, White was actually a skillful specialist of national and international monetary matters. A thorough examination of White’s archives reveals that he had a strong theoretical background rooted in Taussig and Currie’s economic analysis traditions, especially on the gold standard operation and monetary policy design. This chapter shows the originality of White’s monetary thought and provides a better understanding of his first international monetary reform proposal that he made in 1934 based on a bilateral agreement between Great Britain and the US.

“The establishment of a dollar-sterling ratio through agreement – formal or informal – would have some advantages that a return to the gold standard by each country independently might not have. Return through agreement would help reduce business uneasiness and stimulate recovery. It would also create an atmosphere of cooperation in monetary policies between the two countries that would doubtless help to ease the accumulating obstructions to international flow of capital and goods.” (White, 1934, p. 342)

3.1 Introduction

Focusing on Harry Dexter White's monetary thought in the 1930s, this chapter contributes to a greater understanding of an economist whose importance has been understated by Keynes and whose ideas on national and international monetary matters were innovative. Harry Dexter White (1892-1948) was, with John Maynard Keynes (1883-1946), one of the architects of the Bretton Woods system. While Keynes was regarded as one of the most famous and influential economist during the interwar years, White was seen as a US Treasury's technical senior civil servant. According to Roy F. Harrod (1951, p. 537), it was generally admitted in Britain to see White "as some dim scribe, some kind of robot, who wrote at the behest of that vaguely conceived entity, the American Treasury, an inferior version of the Keynes plan – mainly to vex the British!". White was regarded as a low-ranking economist under US political power's thumb. In this respect, in 1943, Lord Halifax would have whispered to Keynes "It's true they have the money bags but we have all the brains" (in Richard N. Gardner, 1969, xvii). This chapter aims at offsetting this incomplete view and focuses on the young White during the 1930s, before the Bretton Woods negotiations.

Born in 1892 in Boston, enlisted in the US army as an officer during the World War I, White entered Harvard in 1925 where he completed a PhD in economics in 1930 at the age of 38. Under the supervision of Frank W. Taussig, White's thesis, entitled *The French International Accounts, 1880-1913*, was very critical of the Ricardian, and orthodox, view of the theoretical adjustment mechanism of the international gold standard. Objected the orthodox framework in which economic policies were framed, White concluded that capital flows should be controlled if they are not profitable to the country. In a January 1932 memorandum, White distinguished himself with two other Harvard economists, Lauchlin B. Currie and Paul T. Ellsworth, advocating open-market operations and bond-financed program of public investments to cope with unemployment and deflation¹. Described as an "ardent new dealer" (Armand Van Dormael, 1978, p. 42), White joined the US Treasury in 1934 on Jacob Viner's recommendation and became gradually a key figure for Henry Morgenthau Jr., Secretary of Treasury of the new President Franklin D.

¹ This memorandum has been published by David Laidler and Roger Sandilands (2002a).

Roosevelt. Long before the beginning of the Bretton Woods negotiations, White was deeply involved in international monetary reforms, especially on the 1935 agreement with British officials to stabilize the dollar/sterling exchange rate which will give rise to the 1936 Tripartite Agreement gathering the US, Great Britain and France. Thanks to his career at the US Treasury during the interwar years, White “had practical experience of foreign-exchange problem” (Harrod, 1951, p. 538). Moreover, according to Eric Helleiner (2014), in the late 1930s, White joined the negotiations for another American reform proposal that was the Inter-American Bank. Appointed Director of the department’s Division of Monetary Research at the US Treasury in 1938, White was enthusiast to set up this multilateral financial institution that would have financed development in Latin American countries (ibid, p. 40). Gaining practical and administrative experience at the US Treasury on national and international monetary matters, White became assistant to Morgenthau in 1941 and led the US delegation during the Bretton Woods negotiations.

Perhaps the picture resulting from this short biography is by no means complete. White’s thought has not been fully appreciated because of the controversy about his political sentiment *vis-à-vis* the USSR and the role he had at that time. Indeed, White was suspected to be a double agent in USSR’s service before and during the preparation of the Bretton Woods conference. This Soviet spying case triggered any number of works (David Rees, 1973; James Boughton 2001; Bruce R. Craig, 2004, Benn Steil, 2013), especially since the mid-1990s when Russia brought to light Soviet intelligence cables that would establish White’s culpability. Studying these cables, Steil (2013, pp. 45-6) shows that White was a Soviet spy, passing confidential strategic information to USSR’s services. He supported this view referring to an unpublished draft that attests White’s admiration for the Soviet economic system (ibid, pp. 40-2). By contrast, in a 2001 article, Boughton objected documents that charged White stressing that his position concerning USSR was true ambiguous but not necessarily accusing. Even if this accusation will not be discussed in our work, this unease concerning White’s personality is strengthened by the impression he gave to his former colleagues and counterparts. White “could be wrathful and rude” (Harrod, 1951, p. 558) and “made little efforts to be liked” (Steil, 2013, p. 5).

Despite this gray area in White’s carrier, White appears to be a convinced reformer with a strong theoretical background. According to Boughton (2006, p. 7), “White’s

arguments were not just the product of his time and place. They also reflected his personal development as an economist both at Harvard and in the Treasury”. White’s training at Harvard under Taussig’s guidance has already been underscored (Rees, 1973, p. 32; Sandilands, 1990, p. 23; Laidler and Sandilands, 2002a, p. 519; Steil, 2013, p. 20, Michele Alacevitch, *et al.*, 2015). Indeed, Taussig initiated a tradition in empirical validation of the classical theory of the international gold standard operation. This theoretical framework, based on classical assumptions, and the methodological approach consisting in examining both the historical and institutional countries’ environment and monetary and banking system, largely influenced White. The study of White’s papers reveals that another tradition was deeply rooted in White’s monetary thought. Indeed, White commonly shared Currie’s analysis on the great depression and the way out, on the gold standard operation and US monetary policy. In the first report that White wrote for the Treasury, entitled *Selection of a Monetary Standard for the United States* (1934), White explicitly referred to Currie’s works when he treated remedies for the US banking and monetary system. Actually, Currie’s monetary thought was the product of Allyn A. Young statistical method and Ralph G. Hawtrey’s monetary cycle theory. Sandilands (1990), Laidler (1993 et 1999) and Laidler and Sandilands (2002) had already highlighted the link between these latter. However, White had never been included in this tradition and such a link would explain how Hawtrey’s monetary theory spread out inside the US Treasury, far beyond the Keynesian ideas. Understanding the origin, evolution and originality of White’s economic thought calls for the study of his formative years at Harvard and in the Treasury.

A more detailed attention on White’s archives located in Princeton and the National Archives at College Park enables us to deepen White’s critics of the classical gold standard theory, his will to manage the national and the international monetary system and his first reform proposal based on a cooperation between the US and Great Britain. Throughout our analysis, we will root White’s monetary thought in two traditions from Harvard, embodied by Taussig and Young-Currie. This chapter provides a better understanding of the reasons why Harrod described White as a skillful, hard-worker and formidable opponent to Keynes (1951, pp. 537-8). The **Section 3.2** deals with White’s analysis of the traditional adjustment mechanism of the balance of payments such as exposed in his PhD dissertation. The **Section 3.3** is devoted to examining White’s reform proposals for the US

monetary and banking system in the 1930s. While he entered in the US Treasury in 1934, White explicitly proposed a “managed currency standard” (1934, p. 245) for the US, advocating demonetization of gold coins and power to modify, in time of stress, the gold parity of the dollar to insulate US economy from international shocks. In **Section 3.4**, we highlight that White did not conceive domestic economic stability without an international monetary cooperation between the US and Great Britain to narrow sporadic gold and capital flows. The **Section 3.5** concludes the chapter.

3.2 The adjustment mechanism of the international gold standard in theory and practice

During his years at Harvard, White enrolled in a doctoral thesis under the supervision of Taussig, one of the major US economists². Taussig involved his students in empirical validation of the classical theory of balance of payments adjustments in presence of capital flows. Completed in 1930 and published by the Harvard University Press in 1933, White’s inductive research on the French international accounts brought this classical theory into question.

3.2.1 The influence of Taussig

In his 1917 article, Taussig theorized the adjustment mechanism of the balance of payments between Great Britain and the US, after a unilateral transfer of capital. His aim was to analyze the effects of a large British loan to the US, extended year after year, on terms of trade under flexible exchange rates (Taussig took the example of the 1861-1879 period when Great Britain was under gold standard while the US was under inconvertible paper standard) and under fixed exchange rates. In Taussig’s analytical framework, whatever the exchange rate system considered, the supply and demand of foreign exchange could be influenced by real and financial factors that had nothing to do with prices in the trading countries. In his article, Taussig offers a critique of Gustav Cassel’s purchasing power parity theory (1916) whereby the equilibrium exchange rate between two currencies,

² Editor of the *Quarterly Journal of Economics* during 41 years, Taussig was chairman of the United States Tariff Commission from 1917 to 1919 and advisory member of the US delegation to the Paris Peace Conference in 1919.

under inconvertible paper standard, is determined by the quotient of general level of prices in each country and ensures the purchasing power of monies. On the contrary, substituting the analysis of price movements in terms of the aggregated price levels – the one developed by Cassel – with the analysis of different prices of goods depending on whether they were imported, exported or non-traded goods, Taussig supports that the equilibrium exchange rate does not respect the purchasing power parity of monies. This distinction of the structure of prices in a country – the sectional prices – is at the core of his critic of Cassel’s theory. To point out his contribution to economic theory, Taussig compared the inconvertible paper money case with the supposed well-known mechanism under gold standard. Actually, he rekindled an old debate – the Bullionist controversy in England in 1810 – on the causes and effects of gold flows between gold standard countries (Florenca Sember, 2013, p. 204). According to David Ricardo (1811) who supported the price specie flow mechanism, inflation originating from redundancy in the currency caused gold export and so a balance of trade disequilibrium. At the opposite, describing the gold points mechanism, Henry Thornton (1802) explained that real and financial factors, being the source of demand and supply for foreign exchanges, caused balance of payments disequilibrium and triggered gold flows when the exchange rate reached the gold points. In that framework, the exchange rate could vary and trigger gold flows while the purchasing power of money is remained stable. According to Sember (2013), while Taussig thought that he had reformulated the Ricardian mechanism of adjustment, actually, he developed the gold points mechanism³. Later, Taussig underlined that Cassel’s theory was “the logical corollary of the Ricardian simplification” (Taussig, 1927, p. 340) of the adjustment mechanism. For our work only the case between two trading countries under gold standard will be studied.

According to Taussig, a British loan to the US gives rise to a demand for dollar in exchange of sterling. According to the gold points mechanism, the depreciation of the sterling could not go beyond the gold export point for Great Britain; symmetrically, the appreciation of the dollar could not go beyond the gold import point for the US. This depreciation of the sterling would result in a gold outflow from Great Britain to the US. In

³ Jérôme de Boyer des Roches’ analysis (2007, p. 25) is particularly relevant on this distinction between Ricardo and Thornton’s approaches. According to de Boyer des Roches & Sylvie Diatkine (2008, p. 191), since the mid-19th century, the two mechanisms have become confused.

accordance with the quantity theory of money (Taussig, 1917, p. 400), in Great Britain (the US) the depletion (increase) in gold reserves would produce a tightening (easing) of the discount rate and the contraction (expansion) of credit; the fall (increase) of the quantity of money would tend to decrease (raise) money income and domestic price level⁴. In the end, the British exports of goods would be stimulated while its imports would decrease, tending to raise the demand for sterling on the foreign exchange market. The terms of trade improve in the US (price level and income are higher except for the price of imported goods that decreases) and worsen in Great Britain (price level and income are lower except for the price of imported goods that increase). The balance of payments would be theoretically restored: gold flows and its consequences on macroeconomic aggregates would bring about equality between capital exports and flows of international goods. In other words, for Great Britain (the US), the balance of trade would be permanently favorable (unfavorable) while the balance of capital would be structurally unfavorable (favorable).

Taussig’s reformulation of the theoretical international gold standard operation did not depart from the symmetrical and automatic features of the orthodox thinking. But he pointed out one essential feature of the post-Ricardian world: the capital flows between countries. According to Michael D. Bordo (1984, p. 55), Taussig considered that “international borrowing was the most importance disturbance to the pre-World War I international economy”. In case of continuous foreign loans, the transfer of purchasing power triggers a series of adjustments that rely on gold flows and changes in sectional prices. The complex process of adjustment led Taussig to test his theory with data to demonstrate how different the response mechanism to gold flows could be, depending on monetary arrangements in each country. To achieve this, he asked for his students to study his theory⁵.

⁴ In his 1917 article, Taussig did not expose the link between gold flows, monetary reserves, change in discount rate and money supply. We refer to the chapter 17 of his book (1927) in which he analyzed in detail the adjustment mechanism of the monetary system.

⁵ Taussig’s students worked on the Argentinian (John H. Williams, 1920), American (Frank D. Graham, 1922), Canadian (Jacob Viner, 1924) and French cases (White, 1933).

3.2.2 White's critic of Taussig's theory: French evidence

As the “protégé of Taussig” (Sandilands, 1990, p. 23), White was regarded by him as one of his most promising students (Rees, 1973, p. 32). White's thesis on the French international accounts “attempts to supply another link in the verification or confutation of [Taussig's] theory” (White, 1933, p. 4). Like in Great Britain, French capital exports were huge during the classical gold standard period (1880-1913). While Taussig's explanations of the classical adjustment mechanism relied on gold flows and sectional prices variations, White failed in confirming the mentor's theory and gave two other explanations: one theoretical - the income effect or the “change-demand-schedules mechanism” in White's words (White, 1933, p. 28) – and the other empirical, the gold premium policy, highlighting the Bank of France's monetary policy to counteract the classical adjustment mechanism.

Firstly, White tried to check the argument whereby the lending country could run a balance of trade surplus with the borrowing country. In the French case, this sequence was absent. Indeed, most of the debtor countries to France – Russia, Austria-Hungary, Turkey etc. – did not spend the sums borrowed to buy French goods. In theory, “when the lending country happens to be highly industrialized, a large proportion of the proceeds of the loan is likely to be spent directly in the lending country” (White, 1933, p. 21). However, France was not highly industrialized than Great Britain, another huge capital exporting country. During the period studied, most of French exports were consumption goods while the French capital importing countries wanted industrial goods produced by the US and Great Britain.

Despite of the absence of such a link between French capital exports and a favorable balance of trade, White did not observe that gold flowed out of France, questioning the means through the purchasing power between countries was transferred. In that respect, White cast doubt on the changes in sectional prices supposed to restore the balance of payments equilibrium: “The claim advanced by Professor Taussig and concurred in by Professor Viner is that without price changes there is no visible mechanism to bring about equality between capital exports and merchandise movements. It seems to me that this view may be questioned” (ibid, p. 22). White clearly stated that, following capital exports, balance of payments disequilibrium could be corrected by income changes without any

gold flow. Situating his approach in the Keynes-Ohlin controversy on the German transfers problem in 1929⁶, White emphasized that the transfer of funds (savings from the creditor country that is invested in the debtor country) would reduce spending by residents of the creditor country and increase spending in the debtor country. Therefore, the balance of trade of the creditor country would improve since its imports decline and the production available for export rises. According to White (ibid, p. 18), “the lending country will develop an excess of exports and the borrowing country an excess of imports, *all of which can occur without the agency of the classical specie-flow-price sequence*” (italics in the text). Prefiguring the absorption approach to the balance of payments, White conjectured that income variation would be the principal means of adjustment:

The efficacy of this modifying influence [income change] is enhanced by the rapidity with which it begins to operate. The modification of merchandise movements thru price changes brought about by transfers of purchasing power is usually much slower. (ibid, p. 307)

However, according to White, “no substantiation of this view could be found in the French trade statistics” (ibid, p. 303).

Even if White failed to validate his assumption that would explain why French capital export were accompanied by neither gold outflows nor changes in sectional prices, he actually found an empirically explanation: the policy of the Bank of France during that period. Indeed, the Bank of France “first made every effort to prevent gold flows, and secondly, sterilized those that did occur” (Flanders, 1989, p. 238). Indeed, the Bank of France used a gold premium policy that consisted in raising the selling price for gold bars and foreign gold coins. When commercial banks wanted to export gold, they could collect gold coins from the circulation or buy bullion at a premium at the Bank of France. White highlighted that this policy was extremely efficient in the short run to restore equilibrium on the foreign exchange market: “It is only when the pressure on exchange rates is temporary – such as a desire on the part of short-term lenders to take advantage of more attractive discount rates in some foreign money market – that the imposition of the gold

⁶ According to Keynes (1929), the payment of the German debt would cause a deterioration of its terms-of-trade, in the line of Taussig's approach. On the contrary, Ohlin (1929) pointed out the importance of the income effects on demand resulting from the transfer, highlighting that there is no reason that the terms of trade move in a way or another.

premium can operate as an effective check to gold exports” (White, 1933, p. 184). Indeed, the manipulation of gold points increased the possible range of exchange rate fluctuations. This deterred short-term lenders from moving their funds abroad since they feared a loss from exchange rate movement. Modifying the gold export point without changing the official price of gold in francs, this policy discouraged gold exports and partly explained the stability of the official discount rate. And even if gold flowed out, the discount rate policy was hardly ever employed: “From 1880 to 1913, there were only thirty changes in the French official rate of discount as against 116 in the Reichsbank and 194 in the Bank of England” (ibid, p. 189). These figures reveal that even when the Bank of France failed in stopping external gold drain, it sterilized gold flows in order to avoid impacting the French money market⁷. Not only did the Bank of France try to prevent gold flows by a gold premium policy but it “exercised no influence on the contraction and expansion of [French] credit” (ibid, p. 200). White concluded that “the gold-flow-discount-credit-price sequences of the neo-classical theory appears to have been wholly absent” (ibid, p. 223).

To sum up, White failed to confirm the automatic functioning of the gold standard in the French case: “for many of the pre-war years gold movements apparently did not function as a means of transferring purchasing power from the lending to the borrowing country” (ibid, p. 140). French evidence led White to call Taussig’s analysis into question, stressing that gold flows and sectional prices variations were not the main features of the adjustment mechanism⁸. Moreover, considering that France did not benefit from its capital exports – the net revenue was low while risky (ibid, p. 311), the borrowing countries did not spend the loan to buy French goods and French investors’ preference to invest abroad deprived domestic industries – White contested the theory generally accepted which praised capital mobility without restrictions:

⁷ The stability of the official discount rate was a primary objective of the Bank of France. According to Guillaume Bazot, *et al.* (2014, p. 26), true the Bank of France used gold premium policy but “most of all, used its discount portfolio to fulfill the demand of French banks and, then, avoid excessive deviations in the spread between the interbank rate and the official discount rate of the central bank”. The use of its balance sheet seems to have enabled the Bank of France to maintain both the stability of the discount rate and of the exchange rate.

⁸ Let us note that White considers gold and short-term capital flows as a means to transfer purchasing power between countries (White, 1933, p. 147). Despite the international growing practice of keeping balances abroad before 1914, in the case of France, these capital flows were discouraged by “the absence of a free gold market, with consequent increased risks of exchange” (ibid, p. 149).

The French experience in the matter of capital exports leads to the conclusion that the orthodox attitude toward unrestricted capital exports is open to criticism; the assumption that the capital exports benefit both the country and the world at large is not unassailable (...). The study of French foreign investments supports, in my opinion, the growing belief that capital exports are not always beneficial to the exporting country and that some measure of intelligent control of the volume and direction of foreign investments is desirable. (ibid, pp. 311-2)

Despite his deep conviction that the income effect was “doubtless a more effective medium” (ibid, p. 303) of transferring purchasing power than changes in sectional prices, such as supported by Taussig, White failed to prove it empirically. Nevertheless, from his empirical study, White was able to shape proposals for economic policy⁹. The classical “rule vs. discretion” criteria that commonly opposed the metallic standard and the managed monetary standard vanished in the light of the French case analysis: gold premium policy was a means to relieve pressure on monetary gold stock when foreign discount rates varied and control of capital flows would have been achieved if they were not regarded as profitable to the country. We consider that this intellectual and analytical background resulting from his training at Harvard under Taussig supervision shaped White's view on monetary reforms.

3.3 White's monetary reform proposal: the managed gold standard plan

When White's thesis was published in 1933, the international gold standard era was ended. The 1931 suspension of gold convertibility of the Sterling and the Great Depression of the 1930s led Roosevelt, the new US President, to alter radically economic policy. Officially, the suspension of the gold standard was announced on June 5 1933 with the abrogation of gold clauses: gold was demonetized and the dollar exchange rate was free to vary. In January 30 1934, Roosevelt signed the *Gold Reserve Act* that enacted the new gold content of the dollar at \$35 per ounce, devaluing the dollar of 41% (the former parity was \$20.67 per ounce). Thus the dollar/sterling exchange rate was variable since Great Britain

⁹ According to White, empirical verifications of the theory was of primary importance in order to define the proper economic policy: “The absence of any settled and sustained policy in these important economic matters has in part been caused by uncertainty as to the manner in which international accounts are adjusted” (White, 1933, p. 3).

had not defined mint parity for its currency. On the contrary, with currencies of gold standard countries like France, the dollar exchange rate fluctuated within the gold points¹⁰. Then, the *Act* transferred ownership of all gold held by the Federal Reserve System to the US Treasury “in exchange for inconvertible gold certificates” (Bordo, *et al.*, 2015, p. 59). The Treasury was also the recipient of monetary gold and gold certificates held by individuals and institutions in exchange of dollar at face value (*ibid.*). At last, the *Act* established the Exchange Stabilization Fund (thereafter ESF) under the control of the Treasury with a reserve of \$2billion resulting from the profits of the dollar devaluation. With a goal of stabilizing the dollar exchange rate¹¹, the ESF could buy or sell gold/foreign exchanges/financial securities (see **Annexe 4** : for a detailed presentation of the ESF). With this *Act*, the Treasury acquired a leading role concerning control of money supply and reforms of the US banking and monetary legislation to the detriment of the Fed. During these years, the great power of the Treasury made possible the rise of White inside the US administration.

In January 1934 Viner became the special assistant of Henry Morgenthau Jr., who was the new Secretary of the Treasury. In the following months, Viner was invited to work on US banking, monetary and fiscal reforms and called in a group of young economists to achieve this task. This group, known as the “freshmen brain trust”, gathered young brilliant economists, amongst them Currie and White. In his report, *Selection of a Monetary Standard for the United States*, submitted to Viner in September 1934, White analyzed with accuracy the pros and the cons of each monetary standard in the light of criteria such as economic stability and high level of real income. It is interesting to note that White presented in substance the impossible trinity: it was impossible for the United States to have at the same time a fixed exchange rates system, the sovereignty of monetary policy and to allow free capital flows. Since “the stability of the purchasing power of dollar is a major objective”

¹⁰ It was the responsibility of US monetary authorities to keep the dollar exchange rate within the gold points by buying/selling gold or dollars/foreign currencies at the gold points.

¹¹ Actually, the motive for establishing the ESF was the initiative taken by Great Britain, after the departure from the gold standard in 1931, to implement the Exchange Equalization Account supposed, officially, to smooth the fluctuations of the sterling exchange rate. However, the US officials were suspicious of its real objective: to depreciate the pound in order to gain a competitive advantage over the US (Schwartz, 1997, p. 137). Both the ESF in the US and the Exchange Equalization Account in Great Britain operated in secrecy under the supervision of the Treasury. According to Sebastiano Nerozzi (2011, p. 65), it was Viner who, in the late 1933, suggested the instauration of an American fund in order to make easier the dollar exchange rate stabilization at \$35 an ounce.

(White, 1934, p. 204), achieved through a discretionary monetary policy, White advocated a return to a managed gold standard, giving power to the Treasury to alter the price of gold in time of stress. In other words, he recommended a fixed but adjustable exchange rate system. Moreover, he supported the control of destabilizing short-term capital flows. White acknowledged that his plan “may appear too radical” (ibid, p. 311). Actually, our examination of White’s plan provides a better understanding of White’s advocacy for a discretionary monetary policy in the US. We mean that White’s reasoning was deeply rooted in Currie’s monetary thought, sharing a common view of the gold standard operation and remedies to stabilize business cycles.

3.3.1 The advocacy for a stabilization monetary policy

Despite several studies which emphasize White’s involvement in internal and external affairs of the Treasury Department (Boughton, 2002, 2004, 2006; Steil, 2013), none of them introduces White’s analysis on the gold standard and on the best monetary policy to conduct.

In theory, the international gold coin standard system lies on a convertibility rule of the means of payments, fixed exchange rates between gold standard countries and legal specie reserves against central bank liabilities. These features “constitute a limiting factor to the expansion of money, and serve to bring into play restrictive measures when the increase in the volume of money reaches a certain level” (White, 1934, p. 24). The gold inflows/outflows from banking reserves compel bankers to restrict/relax credit preserving the purchasing power of money in an automatic way. Resulting from his training at Harvard White cast doubt on this theoretical and automatic view stressing that the analysis of the best monetary standard had to be combined with an examination of how modern banking system worked:

The proper functioning of a monetary system is only partially a question of the monetary standard that is in operation. Equally important are the nature of the banking system, the adequacy of the lending agencies, the security of savings and deposits, and the efficacy of monetary controls. (ibid, p. 34)

According to White the gold standard did not ensure price level stability since different group of prices – import, export, raw materials, etc. – could be affected by several forces such as business conditions, competition or changes in money supply. However, these variations in price levels could “be checked through the manipulation of the monetary supply” (ibid, p. 101). In his report, White decided not to discuss the instruments of monetary policy in order to stem inflation but he directly referred to Currie's line of reasoning on that topic (ibid, p. 62 and p. 101).

White and Currie met at Harvard where they were trained by Taussig and Young. As the leading figures of the Harvard economic department, Taussig and Young initiated a tradition in monetary studies and statistical methods of inquiry. Currie began his PhD dissertation under Young's supervision. Currie's thinking, as Young's one, owed much to Hawtrey's monetary cycle theory in which the variation in credit, which is inherently unstable, tended to intensify economic fluctuations. Sharing Hawtrey's monetary thought coupled with Young's empirical methodology, Currie's dissertation dealt with the US monetary system and “offered a quantity theory bases explanation of the downturn that began in 1929, a critique of the Federal Reserve System's passive response to it, and the suggestion that a more vigorously expansionary monetary policy would have been appropriate during 1929-1930” (Laidler and Sandilands, 2002a, p. 520)¹². As “friendly rivals”¹³, Currie influenced White's analysis on monetary and banking issues.

As a contributor to the Freshmen brain trust, Currie submitted his report, entitled *Proposed Revision of the Monetary Control in the US* (1934b), to Viner. This report was an abridged version of his work *The Supply and Control of Money in the United States* (1934a) in which he analyzed the US monetary and banking system defects and possible remedies. Currie defined money as “those instruments possessed by the public by delivery of which debts contracts and price contracts are discharged” (1934a, p. 11) and made up of “cash in the hands of the public, and, (...), demand deposits” (ibid, p. 24). Thus the quantity of

¹² Currie served as Hawtrey's assistant in 1928 at Harvard while Young accepted to head a chair in economics at the London School of Economics for three years. Young's career suddenly stopped when he died from pneumonia in London in 1929. See also Laidler (1993 and 1999) and Laidler and Sandilands (2002a) on the theoretical filiation between Hawtrey, Young and Currie.

¹³ About his encounters at Harvard, Currie wrote: “The one who was destined to become the best known, and who was also perhaps the most brilliant, was Harry Dexter White. We were, from the first, friendly rivals and remained on this basis for the next ten years” (Currie's Memoirs, in Sandilands, 1990, p. 23)

money was an amount of purchasing power made up of currency – understood as gold coins and paper money – and deposits. Credit granted by the banking system was a part of the money supply in the economy. In this sense, Currie maintained that credit was a “means of payment represented by demand deposits” (ibid, p. 48). He underpinned:

Banks derive their peculiar economic significance not from the fact that they are lenders – there are many other lenders – but from the fact that they furnish, in modern countries, almost the entire supply of the community's means of payment (ibid, p. 49)

Currie challenged the real bills doctrine¹⁴ supported by the bankers at the Fed according to which money supply changes should be dependent of the needs of trade. If money was issued against short-term commercial bills – supposed to be sound and safe because they are backed by the goods involved in the circulation – the quantity of money could never be excessive. In this sense, so long as commercial banks discounted these short-term bills, the quantity of money adjusted itself automatically to the real output. Since the Federal Reserve Act of 1913 allowed the Fed to discount only real bills, the US monetary policy was passive. According to Currie (ibid, p. 42), a monetary policy whose objective was only to discount real bills was pro-cyclical. In times of economic expansion when the need for credit was important, the central bank led passively an expansionary monetary policy and vice versa in times of depression, accentuating the economic trend despite of stabilizing it. Currie advocated to redefine the meaning of the monetary policy – control of the money supply, and in particular deposit resulted from credit creation – its instruments – open markets policies and changes in reserves requirements – and its goal, that is to say stabilization of domestic economy (employment rate and inflation rate)¹⁵. To stabilize the business cycle was a responsibility of the Central Banker. White adhered to this view and added that a discretionary monetary policy was much more efficient to cope with inflation than the convertibility rule under gold standard:

¹⁴ This is a version derived from the Banking School needs-of-trade doctrine. According to Laidler (1999, p. 18) Lloyds Mint was the first to employ the term “real-bills” doctrine. Currie (1934, p. 35) called this doctrine “the commercial loan theory of banking”.

¹⁵ As stressed by Sandilands (1990, p. 39) and Laidler and Sandilands (2002a, p. 520), Currie’s developed an income velocity version of the quantity theory of money, like Hawtrey and Young, stressing that money supply changes affected money income and expenditures in a cumulative process before impacting money prices.

Metallic standards constitute (...) even less protection against inflation than would the establishment of an improved banking system and of a definite monetary policy (as, for example that set forth in L.B. Currie’s report) having for its guide some objective criterion of domestic stability (White, 1934, p. 66).

Moreover, one of the major disturbances in the US banking system since 1931 was the excess reserves. Banks built up reserves in excess of reserve requirements set by the Fed to meet the run and avoid liquidity crisis and failures. In other words, this bank practice consisted in keeping up the money supply. However, the Fed controlled the volume of means of payments thanks to the level of required reserves but was not allowed to change this level. In his report, supporting the abrogation of gold currency, White recommended the elimination of reserve requirements to allow the Fed to pursue a counter-cyclical monetary policy. According to Currie (1934a, p. 151) and White (1934, p. 251), the open market operations were the main feature of an effective control exercised by the central bank over the supply of money.

White and Currie already offered a common analysis of the great depression and its remedies in a 1932 memorandum, unpublished at that time but largely circulated in the Harvard economic department (Rees, 1973; Sandilands, 1990; Laidler and Sandilands, 2002a; Boughton, 2004). This memorandum contains heterodox economic policies such as open market operations or fiscal policy financed by money creation. This set of ideas disagreed with the theoretical framework – real bills doctrine and balanced budget approach¹⁶ – in which policy decision were made¹⁷ since the end of the 1920s. Even if it appears difficult to separate each author’s contribution to the 1932 memorandum, our study of White’s 1934 report shows that White was influenced by Currie’s monetary theory and policy proposals, both supporting a discretionary monetary policy rather than rigid rules to stabilize the business cycle.

¹⁶ Within the Roosevelt administration, men like Morgenthau, William Woodin or Lewis Douglas – the first budget director – “wanted reductions in government spending and a balanced budget” (Meltzer, 2003, p. 420).

¹⁷ Laidler and Sandilands (2002a, p. 529) highlighted the innovation and radical ideas developed by the 1932 authors memorandum. While James Ahiakpor (2010) refuted to regard these economic policy recommendations as heterodox, explaining that the 1932 memorandum recommendations took roots in the classical quantity theory of money, Laidler and Sandilands (2010, p. 587) reminded the hegemony of the real bills doctrine, especially at the Fed, since the beginning of the 20th century, and so, reaffirmed that the 1932 memorandum offers a new alternative intellectual tradition.

3.3.2 A fixed but adjustable exchange rate system

In the managed gold standard plan developed in his 1934 report, White combined the advantages of both the gold standard – fixed exchange rates – and the fiat money system – discretion in the conduct of the monetary policy. Thus he did not support the return to the international gold standard in its rigid form, in which the price of gold is inalterably fixed in dollars, the domestic price level has to vary in reference to the balance of payments movements and the monetary policy is restricted to follow the rules of the game. Nonetheless, he acknowledged that a “pure” managed standard did not compel enough domestic economic policies and provoked a strain upon “the attitude of foreign currencies toward movements of exchanges ... [and] of the majority of financiers and businessmen to a monetary unit that is not fixed in terms of gold” (White, 1934, p. 234). According to Filippo Cesarano, in the 1930s, the confidence of economic agents in a metallic standard was momentous to promote the recovery but “the disruptive shock of 1929 powerfully enhanced the attractiveness of the idea of managed money” (Cesarano, 2006, p. 101). Moreover, the return to gold by Great Britain in 1925 failed to promote international monetary stability, the London Conference in 1932, whose aim was the reestablishment of the cooperation, ended in failure and the US feared the strong dependence of their domestic policy on the international economic conditions. Therefore White’s reform proposal has to be read in the light of both the intellectual, political and economic context of the 1930s, in the upheaval originated from the Great depression.

According to White, “under fixed exchanges [under the gold standard] the maintenance of stability of the purchasing power of the domestic currency unit becomes very difficult, if not impossible, in the face of deflationary or inflationary movements abroad” (1934, p. 124). During abnormal conditions, typical of the 1930s, White considered that fixed exchange rates placed the US economy at the mercy of world economic instability. Indeed, he focused on capital flows induced by the expectation of speculative gains from exchange and from higher interest rates (hot money). These speculative capital flows caused, in time of stress, great variations of the central bank metallic reserves, pressure on money supply and potential price level instability. White added that these capital flows were hardly self-regulating:

International capital movements are sensitive to psychological influences, and are endangered by expectations of political upheaval, or anticipated “radical” legislation or fear of inflation, “loss of confidence” and the like, as well as by expectation of profit out of purely speculative transactions. (ibid, p. 121)

In absence of international monetary cooperation between countries, White advocated the insulation of the US economy from international shocks as deflationary policies in gold standard countries and competitive devaluations; the latter heightening short-term capital flows. As summed up by White:

Essentially the decision to be made is the choice between (a) tying our price structure to prices structures abroad, through the medium of fixed exchanges, with a resultant rough synchronization in the movements of national price structure, and (b) providing, through the adoption of “managed” exchanges, the means of cutting loose our price movements from world trends which may be going in directions other than in which our own interests lie. (ibid, p. 234)

By “managed” exchanges, White meant the right to alter the price of gold in order to relieve pressure on the foreign exchange market; pressure coming from the heightened short-term capital inflows which give rise to a continuous demand for dollars¹⁸. Yet in his dissertation, White showed how before 1914 the Bank of France implemented a gold premium policy to alter the gold export point and insulate the French economy from short-term capital flows resulting from foreign discount rate variations. In White’s plan, in time of stress, the Treasury, without the consent of the US Congress, would alter the gold points – a widened spread of 2% between gold points could be effective (ibid, p. 338) – to dissuade speculative capital flows and arbitragers from importing/exporting gold. In the classical approach of the gold standard operation, gold flows and short-term capital flows should be forces that correct domestic income and price level maladjustments. White’s non-acceptance of this theoretical adjustment process is understandable since, in the 1930s, these flows occurred under abnormal conditions and did not result from sound international trade and finance. Moreover, “it would (...) be highly desirable to institute some measure of control over the free movement of capital” (ibid, p. 243). By this means,

¹⁸ Keynes (1923, p. 150) first supported to foster price stability in spite of exchange rate stability modifying all Thursdays morning the official sterling parity of gold. But in his plan, White never referred to 1923 Keynes’ plan.

the Treasury would put pressure upon these destabilizing short-term capital flows and complete the monetary policy’s instruments.

The managed gold standard combined with measures to stem capital flows would prevent the US economy from being destabilized by foreign economic policies. According to White, in case of external shock, the US “monetary authority would possess a choice of pursuing that policy which it deems best for the United States” (ibid, p. 260)¹⁹. At this stage, given the leading position of the US as an industrial power and primary goods producer, and the desire of economic agents to hold dollar denominated assets, such a fallback solution would result in worsening economic problems of other countries. Indeed, if continuous demand for dollars on the foreign exchange market had to be limited, foreign economic agents would substitute it for demand for gold. This flight to gold would even more destabilize gold standard countries such as France while countries like Great Britain would be encouraged to strengthen their competitive devaluations policies. In retrospect, White’s proposal to return to a managed gold standard²⁰ appears like a beggar-my-neighbor strategy. Actually, far from promoting nationalist policy, White stressed the importance of international cooperation to avoid further world deflationary process.

3.4 The bilateral monetary cooperation

According to White, “no separation exists between domestic and international monetary problems, or between domestic business’ activity and foreign trade” (1935, p. 1). During the 1930s, at the Treasury, White never abandon his first monetary proposal that aimed at reconciling internal and external stability, overcoming the trade-off between price level stability and fixed exchange rates. In this sense, White saw international monetary cooperation as the key element in achieving his plan. His proposal, first developed in his

¹⁹ If the dollar exchange rate reached the gold export point, either the Treasury allowed a decrease in metallic reserves, either it altered the price of gold modifying the gold export point, depending the causes of the disequilibrium. We have shown that another leeway was to control speculative capital flows. Actually, according to White (1934, p. 281), the modification of the gold content of the dollar had to be used as an ultimate measure if the control of capital flows failed to relieve pressure on the foreign exchange market.

²⁰ His plan was similar to a gold bullion standard. White reminded that the chief advantage of such a system was to avoid the internal drain because all metallic reserves were centralized in the vaults of the Treasury to cope with an external drain (White, 1934, p. 254).

1934 report, was based on a monetary cooperation between the leading countries which had to return to a managed gold standard.

3.4.1 Currency stabilization as a means to prosperity

From the outset, White shut out economic autarky asserting that “a policy looking toward complete economic isolation (...) is wholly out of the question” (1934, p. 6). White had in mind the fact that the US recovery was closely tied to the US economy’s ability to export to foreign countries. However, in the aftermath of the 1929 crisis and the suspension of the gold convertibility of the sterling, the gold exchange standard, and more generally, the return to the gold standard were analyzed as a major factor of disequilibrium (William A. Brown, 1941; Barry Eichengreen, 1988, 1992; Peter Temin, 1989). When White questioned the US return to gold, he stated:

If this or the next administration insists upon returning to the gold standard, there is assuredly no good reason why it must return to the old orthodox variety that prevailed before 1933. Improvements are possible. (White, 1934, p. 319)

Indeed, White supported more flexibility in the management of gold reserves and foreign balances. Traditionally, a dividing line was usually drawn between the gold standard countries – industrial and capital exporting countries – and the gold exchange standard countries – importing capital countries that produced raw material and primary goods. The latter held reserves in leading foreign currencies redeemable in gold to stabilize their exchange rates. According to White: “For a country that has little gold and wished to maintain fixed exchanges, the gold exchange standard provides the way out” (ibid, p. 230). White highlighted that since the US Treasury held huge gold reserves, a managed gold bullion standard seemed to be the best monetary system. However, White did not make this dividing line between the two forms of gold standard. He did not downplay the importance for the Fed of holding foreign currencies to intervene directly on the foreign exchange market and stabilize the dollar exchange rate. Thus he added: “If deemed desirable, the Federal Reserve Bank could, under the gold standard, keep large balances abroad and permit them to grow or decrease according to the needs of international settlements exactly as under the gold exchange standard” (ibid, p. 230). White saw the

practice of keeping balances in foreign centers as a convenient method to stabilize exchange rates of currencies.

But this tool was not enough to restore the stability of the exchange rates and ensure international trade and finance recovery. Actually, the success of White's plan – price level stability in a fixed exchange rate framework – rested on an international agreement between the two leading countries: the US and Great Britain. Since the sterling and the dollar were the key currencies of the international monetary system – economic contracts were denominated in one or the other currency and the US and British currencies constituted the anchor for foreign currencies – the agreement had not to be multilateral but bilateral:

Fortunately, (...), international agreement on the monetary problems confronting the United States does not need to embrace many nations in order to be effective. British sterling and the United States dollar together virtually dominate the means of international payments, because of the large number of countries that conduct their transactions in either sterling or dollars, and/or which keep their own currencies pegged more or less closely to one or to the other. (ibid, p. 340)

White's approach took for granted the hierarchical structure of the international monetary system, advocating for a common return to the gold standard for the two leading countries. If these countries cooperated on a stabilization monetary policy, they would be able to overcome the trade off between price level stability and fixed exchange rates.

If the price policy followed by each country were to be the same, the flow of purchasing power between the two countries could be much reduced, and consequently the fluctuations in the volume of reserves and of business activity would be less. (ibid, p. 341)

The US and Great Britain had to agree on a scheme which would permit domestic price level stability, achieved through a discretionary monetary policy, and avoid large demand for foreign exchange resulting from cyclical disturbances. In other words, movements of foreign exchange had to be narrowed within the gold points. According to White, the stability of the purchasing power of dollar was the foremost objective in the US; if Great Britain committed to stabilize domestic price level, this would have been consistent with a policy of stabilizing exchange rates without gold flows. In case of success,

this international monetary stabilization plan put an end to gold standard's despotism of control over domestic goals.

If a high degree of international cooperation could be secured with regard to the same objectives and the employment of harmonious methods to achieve this objective, the restriction to our sovereignty in monetary matters would never be felt. (ibid, p. 233)

Surprisingly, White tackled this issue at the end of his report while he maintained that without the bilateral monetary cooperation between the US and Great Britain, all of his previous recommendations regarding the managed gold standard plan for the US could be jeopardized.

If England refuses to consider returning to the gold standard jointly with us at the rate that is reasonable (...) it would seem most unwise for us to return to the gold standard alone. (ibid, p. 344)

Without looking at this issue in more depth, White seemed to be influenced by the absence of formal cooperation between the Bank of England and the Fed after the 1922 Genoa conference and its deplorable consequences on the international gold standard operation. According to White, the successful return to the gold standard for the US depended on Great Britain doing the same. The international monetary system had to be commonly managed by the leading countries.

White's recommendations call for two remarks. Firstly, this manner to present the trade off between price level stability and fixed exchange rate, and the condition of its success, is closely similar to Keynes' *Tract in Monetary Reform* which tackled the debate on the British return to gold in the 1920s. Indeed, Keynes (1923, p. 147) strongly supported the "stability of sterling prices" as a "primary objective" in Great Britain. The British monetary policy aiming at such an objective could be consistent with fixed exchange rates only if the US maintained domestic prices steady. However, Keynes objected Hawtrey's optimistic view on the success of cooperation between the Fed and the Bank of England, considering it as "pious hope" (Keynes, 1923, p. 174)²¹. White did not make any reference to this period of time, nor to this debate between Keynes and Hawtrey while the parallel

²¹ According to P-H. Rojas (2016, p. 18)

could be obviously drawn. Secondly, White plan did not focus on peripheral countries and the way they could peg their currencies to sterling or dollar. Following White's reasoning, since the US, Great Britain and France held two third of the world monetary gold stock, it could be easily supposed that the peripheral countries will return to a form of a gold exchange standard as soon as a satisfactory dollar/sterling ratio would be fixed. Nevertheless, White attracted Viner's attention to the immediate necessity of stabilizing the leading countries' currencies to restore a world monetary order. White's plan provided a fixed exchange rates system and supposed to allow international trade and finance without gold flows between countries. Such a view of the international monetary order was far away from the plan that White will write in the early 1940s preparing the Bretton Woods conference. Indeed, while Keynes thought cooperation between the US and Great Britain to restore the international monetary system, White supported a multilateral cooperation with all allied nations, including China and Russia. The 1934 White's proposal appears to be less ambitious calling on a bilateral cooperation without advocating specific international institutions as he did during the Bretton Woods negotiations.

3.4.2 White's proposal in the light of the 1936 Tripartite Agreement

In November 1934, White accepted an appointment as a principal economic analyst with the Treasury Department's Division of Research and Statistics. As a permanent civil servant at the Treasury, White summed up measures to tackle the unemployment issue. Firstly, he advocated a new public spending program. Secondly, and it is the most important here, he counted on the "reestablishment of international monetary equilibrium, without jeopardizing our long run program of stabilizing domestic business at a high level of real income" (White, 1935a, p. 3). The idea of an exchange rates stabilization policy such as developed in White's 1934 report and its consequences for the Anglo-American cooperation began to spread inside the Treasury. According to Allan H. Meltzer (2003, p. 534), Viner seemed to share this view and George Harrison – the President of the New York Fed – was in favor of a monetary cooperation between the US and Great Britain to stabilize the dollar/sterling exchange rate. Morgenthau succeeded in proposing a meeting in London in April 1935 between a US delegation, including White, and British officials.

During his trip in London in spring 1935, White was confronted with the unwillingness of most British businessmen to return to the gold standard. Indeed, they used to trade with sterling area countries and the return to a fixed price of gold in sterling was out of their preoccupation. Moreover, White stressed that they “believed that when the price of sterling changed in terms of other currencies, it was the other currencies that moved and not sterling” (White, 1935c, p. 8). The British officials, including Keynes, advocated a stabilization of the sterling. White failed to spread his view on the necessity of a common return to a managed gold standard. However, a monetary cooperation aiming at stabilizing exchange rates of currencies was gradually taking shape and announced the 1936 Tripartite Agreement.

Under Morgenthau’s supervision, White joined in informal negotiations with the British and the French. The plan did not lie on a return to the gold standard but on the establishment of national funds, made up of foreign currencies and gold, to stabilize the British, the American and the French exchange rates. We have seen that the US and British stabilization funds existed yet but until 1935, without an common stabilization policy, the two institutions operated day to day²². In 1936, the US economic expansion attracted more gold from abroad, strengthening deflation in gold standard countries. Moreover, the election of Léon Blum in May 1936 heightened gold outflows and precipitated the gold standard suspension in France. The devaluation of the franc was inescapable and White pointed out the necessity to agree on “the upper and lower limits of reasonable levels for the various leading currencies with reference to the dollar” (1936, p. 34). The Tripartite Agreement, signed in September 25 1936²³, consisted in the creation of a French stabilization fund – financed by the proceeds of the devaluation – and a general policy of currency stabilization. The mechanism of currencies stabilization could be divided as

²² In reality, the aim of the ESF was to offset the dollar appreciation on the foreign exchange market. Indeed, between 1934 and 1936, the large net capital inflows to the US forced the monetary authorities to purchase foreign currencies and more than \$4 billion of gold (Meltzer, 2003, p. 459). Technically, in case of a huge foreign demand for dollars, tending to appreciate the dollar exchange until the gold import point, the ESF purchased foreign currencies and gold and released dollars to foreigners: these operations were made through accounts that had the ESF in the major New York banks (Arthur I. Bloomfield, 1944, p. 71). Before the Tripartite Agreement, there was no cooperation between the major countries on currencies stabilization. Indeed, to avoid the risk of losses, the ESF converted quasi immediately foreign balances in gold, putting more strain on metallic reserves of gold standard countries.

²³ Belgium adhered to the Agreement on the following day, and Switzerland and the Netherlands on November 21, 1936.

follows. From the outset, the governments provided exchange rate stability for twenty-four hours at a time; the funds announced on the morning the price of their national currencies at which they bought and sold gold, and so could determine the rates at which they will buy and sell foreign currencies of the Tripartite Agreement without risk of exchange. However, to provide financial assistance to the British and French funds, the US fund accepted to sell gold directly to the latter against the dollars balances held by them²⁴, helping as a better redistribution of the gold monetary stock. The cooperation and the reciprocity were fostered, permitting the exchange rate stabilization of the leading currencies²⁵ and eliminating exchange risks for the authorities. With the dollar/franc/sterling ratios defined and fixed, the whole part of the international monetary system could be stabilized, if countries' currencies of sterling and franc bloc are considered. This agreement made a breakthrough into the beggar-my-neighbor policies – the competitive devaluations and trade barriers – implemented in the 1930s. For the first time, the leading countries, included the US, agreed on the instrument for the monetary cooperation to stabilize foreign exchange rates. The adjustment mechanism under this agreement differed from the traditional one under the international gold standard and it was the aim. Indeed, the fund could convert currencies into gold without limit, at fixed price, without risk of exchange, but within a framework of exchange rate flexibility. Gold transfers were made through governments and did not rely on private trades. In this sense, the agreement shaped a managed international monetary system, centralized on the stability of the gold content of the dollar at \$35 an ounce.

Earlier in 1935, in a draft prepared for Morgenthau on the US monetary policy, White saw the ESF as “a powerful stabilizing force” (1935e, p. 30) able to stabilize leading currencies on the foreign exchange market thanks to cooperation with foreign central banks. By the way, in a March 1935 memorandum, White suggested that “the United States, through diplomatic channels, ascertain whether or not England and France are willing to enter upon an agreement or understanding covering a year or two. This informal

²⁴ Before this arrangement, the ESF could only buy gold at \$34.75 and sell gold at \$35.25 an ounce to gold standard countries.

²⁵ As stressed by John K. Horsefield (1969, p. 7) and again by Bordo & Schwartz (2001, p. 12), the Tripartite Agreement was based on currency swaps: the funds obtained gold and foreign currencies in exchange of its national currency. It is not a traditional loan in dollars to Great Britain and France. This tends to considerate that the sterling and the franc are treating as equal to the dollar.

agreement should specify as a minimum no change in the relationship (...) sterling — \$4.65, yen = 28¢, and franc = 5.60¢ (...) The inescapable conclusion is that at least agreement on the essential points should be arrived at informally and secretly” (White, 1935b, p. 45 and p. 47). The informality could be preferred since “a new alignment of exchange rates may be called for and the readjustment would take place more easily if the agreement provided for that contingency, or if we were not bound by any formal agreement but were merely acting co-operatively toward a tentatively agreed upon goal of stabilization” (ibid., p. 58). The Tripartite Agreement was actually in White’s mind before 1936. However, currencies stabilization was not an end in itself. White insisted on the fact that “stabilization will reduce the necessity for rigorous exchange controls, it will hasten the abandonment of deflationary policy in France, Netherlands and Switzerland, it will help to restore world confidence and ease monetary stringencies in several countries” (White, 1935d, p. 16).

3.5 Conclusion

The study of White’s writings reveals that he was not only a senior civil servant committed into the Bretton Woods negotiations but also an innovative and brilliant scholar with a strong theoretical background deeply rooted in Harvard. This set of ideas was consistent with policy proposals that White made both during the 1930s and the Breton Woods negotiations. In this sense, we object to the title of the chapter 2 of Steil’s book devoted to White, entitled *The Improbable Rise of Harry White* (2013, p. 17). On the contrary, there is both a consistency and continuity in White’s carrier which will led him to face Keynes during the Bretton Woods negotiations.

True, White’s commitment to national and international monetary reforms came to fame late and lasted shortly since he died in 1948 from a heart attack. Contrary to some of his contemporaries, such as Taussig or Currie, White’s carrier as a theorist was short since he entered the Treasury quite quickly after he defended his PhD dissertation. Nevertheless, it can no longer be any doubt that White was influenced by them on international, monetary and banking issues. This chapter recognizes the value of Taussig as prominent for White’s methodology and focus on capital flows as one of the major disturbance during

the interwar period. Currie’s thought seems also to be crucial to understand White’s analysis of the monetary and banking system under the gold standard. Very critical of the traditional “rigid” gold standard conception, White offered a wide view of the adjustment mechanism under fixed and flexible exchange rates in his 1934 report. We have stressed that actually White presented in substance the “impossible trinity”: the success of his plan – price level stability in a fixed exchange rate framework – rested on the control of capital flows. As highlighted by White, if the control of capital flows failed, the gold parity of the dollar could be changed. While White considered control of capital flows as necessary, both in his PhD thesis and his 1934 report, his view seemed to evolve in the late 1930s, considering that an intelligent control of capital flows is the “best of the bad choices” (White, 1938). Even if White’s monetary thought is innovative, Helleiner (2014, p. 41) notes that “the unorthodox nature of [White’s] thinking should not be overstated: [White] placed a high value on price stability and monetary discipline”. In a 1940 study, entitled *The Future of gold*, White reaffirmed that the gold standard produced confidence in economic contracts. The flexibility of the international gold standard operation, allowed by the practice of countries to keep foreign balances, was made possible because countries “know they can convert these [foreign balances] into gold if and when necessary” (White, 1940, p. 10).

Annexe 4 : Le Fonds de stabilisation américain

La création du fonds de stabilisation américain (*Exchange Stabilization Fund*, ESF), créé par le *Gold Reserve Act* du 31 janvier 1934, illustre parfaitement la façon dont les autorités monétaires ont cherché à élargir l'éventail de leurs moyens pour faire face à des problèmes urgents nés des déséquilibres financiers des années 1930¹. Sous l'administration Roosevelt, le *Gold Reserve Act* promulgue la dévaluation du dollar – l'once d'or valant désormais 35\$ contre 20,67\$ auparavant – et officialise la prise de contrôle du stock d'or américain par le Trésor, qui, suite à la dévaluation, passe de 4,2 milliards de \$ à 7 milliards de \$. Sur les 2,8 milliards de profits, 2 ont permis de constituer le capital de l'ESF. L'allocation de la majeure partie des profits de la réévaluation en faveur d'une nouvelle institution permettait aussi de ne pas gonfler les réserves bancaires nationales, pouvant donner lieu à un dérapage inflationniste (Bloomfield, 1944, p. 70). La section 10 (a) du *Gold Reserve Act* décrit clairement la mission principale de l'ESF :

For the purpose of stabilizing the exchange value of the dollar, the Secretary of the Treasury, with the approval of the President, directly or through such agencies as he may designate, is authorized, for the account of the fund established in this section, to deal in gold and foreign exchange and such other instruments of credit and securities as he may deem necessary to carry out the purpose of this section.

L'analyse des interventions de l'ESF sur la période des années 1930 n'est pas aisée puisque cette institution agissait en secret, sous le contrôle exclusif du Secrétaire d'État au Trésor, qui lui-même devait avoir l'aval du Président des États-Unis. Selon Schwartz (1997, p. 137), les actions de l'ESF étaient maintenues secrètes pour deux raisons : ne pas rendre public les taux auxquels étaient achetées et vendues les devises, notamment en cas de perte, et dissimuler la politique de change que souhaitaient mener les autorités américaines, notamment à la Grande Bretagne qui était accusée, à l'époque, de sous-évaluer volontairement la livre. Dans leur étude empirique de l'ESF, Bordo, *et al.* (2015, p. 63) se

¹ L'exemple américain n'est pas unique. Des fonds similaires ont été créés au Grand Bretagne (1932) mais aussi en Belgique (1935), en Suisse, en France et aux Pays-Bas (1936), au Canada et en Argentine (1935), en Espagne, en Lettonie et en Tchécoslovaquie (1936), en Colombie et au Japon (1937) ainsi qu'en Chine (1939 et 1941). Comme le souligne Bloomfield (1944, p. 69), même si ces fonds diffèrent d'un point de vue institutionnel, sur la composition de leurs actifs ou encore sur les types d'opérations menés, ils avaient tous pour objectif de stabiliser le taux de change en luttant contre la volatilité des mouvements de capitaux.

sont confrontés au manque de données et de matériel officiels, soulignant que le chapitre de leur ouvrage « is essentially based on the information that the authorities have chosen to reveal ». Cependant, dans les archives de White à l'université de Princeton, on trouve le bilan de l'ESF au 31 décembre 1934. Ce document, reproduit dans cette annexe, va nous permettre d'illustrer le fonctionnement de l'ESF au moment de sa création.

Bilan de l'ESF, 31 Décembre 1934

<u>ASSETS</u>		<u>LIABILITIES</u>	
Cash	\$ 1915 464 975	Contracts account of purchase Silver Bullion	\$ 5 421 800
<i>Treasurer of the US, Gold (a)</i>	1 800 000 000		
<i>Treasurer of the US, Checking Accts. (b)</i>	47 170 730	Vouchers Payable	\$ 1 517
<i>FRBNY, Spec. Acct. (d)</i>	68 286 458		
<i>FRBNY, Fiscal Agent of US, Garanty Trust Co. (London)</i>	5 962	Reserve for Expenses of Shipping Gold from London to New York	\$ 149 335
<i>Disbursing Officers' balances (c)</i>	1 825		
		Capital Account	\$ 2 000 000 000
French Francs (e)	\$ 9 880 332		
		Earnings	\$ 2 370 948
Investments	\$ 76 865 184	<i>Profits on Sale of Silver Bullion</i>	1 823 349
<i>Government Securities (f)</i>	41 878 233	<i>Interest on Fr. Francs Bank Balances</i>	8 867
<i>Gold bullion (35\$)</i>	20 503 496	<i>Interest on Investments</i>	585 941
<i>Silver Bullion held in New York (g)</i>	14 483 454	<i>Less expenses</i>	47 209
Silver Purchased for future (h)	\$ 5 421 800		
Accrued Interest Receivable	\$ 311 307		
Total	\$ 2 007 943 601	Total	\$ 2 007 943 601

Source : Harry Dexter White Papers, Mudd Library, Princeton University.

L'ESF entre en opération le 27 avril 1934 avec, comme agent fiscal, la FRBNY. L'ESF pouvait soutenir le taux de change du dollar, soit en exportant de l'or (en cas de chute du change), soit en achetant des devises contre des dollars (en cas de hausse du change). Rappelons qu'en 1934, seule la Grande Bretagne a suspendu l'étalon-or, le dollar fluctuait donc par rapport à la livre. Par contre, les États-Unis étaient en changes fixes avec les pays du Bloc or, comme la France, la Belgique ou les Pays-Bas. Initialement, les 2 milliards de dollars de l'ESF ont été divisés en trois comptes : un compte de dépôt (a) pour l'or, un compte en dollars (b) à la FRBNY et un compte sur lequel les intérêts sont déposés (c). Le compte (b) a été créé pour permettre à l'ESF d'intervenir sur le marché des changes avant l'atteinte des points d'or. En effet, sans ce compte, il aurait fallu attendre, par exemple, que le taux de change du dollar en franc atteigne le point d'entrée d'or, pour que le stock d'or de l'ESF puisse servir. Or, l'objectif était d'intervenir sur le marché des changes pour éviter les arbitrages des opérateurs de marché. Ce défaut a été résolu lorsque le Trésor a converti 200 millions de dollars-or en dollars, déposés à la FRBNY, tout en créditant cette dernière d'un montant équivalent de *gold certificates* (Bloomfield, 1944, p. 69). Concrètement, supposons que le taux de change du dollar s'apprécie rapidement, l'ESF donne l'ordre aux plus grandes banques de New York d'acheter des devises et de l'or en échange de dollars que l'ESF leur crédite via son compte à la FRBNY. Le compte spécial à la FRBNY (d), libellé en dollar, correspondait au montant des ventes d'or suite à des opérations de change.

Sur le bilan ci-dessus, nous pouvons voir que l'ESF détient des francs (e). Or, le rapport annuel du Trésor (1934) ne fait pas mention d'une intervention, sur le marché des changes, conduisant à l'achat de francs (Bordo, *et al.*, 2015, p. 70). Revenons sur la première intervention de l'ESF pour comprendre ce document en annexe. Pour rappel, le taux de change du dollar vis-à-vis des autres devises en étalon-or admettait une marge de fluctuation entre les points d'or. Cependant, libre au Trésor d'intervenir avant que le change ne les atteigne. De plus, depuis le *Gold Reserve Act*, le Trésor est devenu l'institution centrale conduisant la politique de change ; les opérateurs de marché ne pouvaient acheter et vendre de l'or/devises que si le Trésor leur avait octroyé une licence (Bordo, *et al.*, *ibid.*). L'ESF est intervenu pour la première fois le 5 septembre 1934 pour contrecarrer la chute du dollar face au franc. À l'époque, les opérateurs de marché craignaient une future dévaluation du dollar, accompagnée d'une dépréciation de la livre, ce qui a donné lieu à

d'importantes ventes de dollars. Pendant plusieurs jours, début septembre, le taux de change du dollar en franc était en dessous du point d'exportation d'or à New York, provoquant des mouvements d'or vers la France et nécessitant l'intervention de l'ESF. Bordo, *et al.* (2015, p. 69) pensent, sans l'affirmer, que l'ESF a conclu un accord de *swap* avec la Banque de France afin de stabiliser le change. En effet, l'ESF aurait acheté à la Banque de France 134,5 millions de francs avec des dollars au taux courant, avec l'engagement de lui revendre à terme à un taux défini en amont. Dans la foulée, l'ESF a vendu pour 85,2 millions de franc au taux courant et 1,2 millions au taux à terme. Entre le 5 et le 25 septembre, l'ESF vendait des dollars à un taux compris entre le pair de change et le point d'exportation d'or. Le dollar se renforçant entre le 22 et le 28 septembre, l'ESF a pu acheter des francs à un taux suffisamment avantageux pour couvrir ses pertes sur le taux à terme. Cette première intervention a été un succès car le taux de change a pu se stabiliser entre les points d'or. Ainsi, dans le bilan ci-dessus, le compte en francs doit correspondre à la somme issue de l'accord de *swap*. Le succès de cette intervention explique la raison pour laquelle l'ESF sera la pierre angulaire de l'Accord Tripartite de 1936.

Alors que l'objectif officiel de l'ESF était de stabiliser les changes via le mécanisme décrit ci-dessus, notons que le Trésor lui a assigné des missions supplémentaires non prévues par le *Gold Standard Act*. Ceci permet de comprendre la composition des actifs détenus par l'ESF. Premièrement, l'ESF avait la possibilité de mener des opérations d'open-market aux États-Unis pour le compte du Trésor. L'achat de titres publics, ligne f du bilan, permettait d'influencer le marché des obligations ainsi que la politique monétaire, gérée par le Trésor. Deuxièmement, l'ESF a acheté de l'argent sur la période, dans le cadre du *Silver Purchase Act* du 19 juin 1934, qui stipulait que le Trésor devait détenir 1\$ d'argent pour 3\$ d'or détenus en réserves. Ainsi, à partir de juin 1934, le Trésor a demandé à la FRBNY d'acheter de l'argent (ligne g du bilan) financé par la vente d'or à l'étranger et l'utilisation du compte de dépôt (b). Par ailleurs, l'ESF s'était aussi arrangé pour acheter de l'argent à terme (ligne h du bilan). Enfin, notons que l'ESF pouvait octroyer des prêts à des gouvernements alliés des États-Unis. Cette politique de prêts aux pays étrangers, notamment d'Amérique du Sud, constituait une aide extérieure au développement, ce qu'un achat/vente de devises ou d'or pour stabiliser le taux de change ne permettait pas. Le 1^{er}

prêt fut octroyé au Mexique en janvier 1936, voilà pourquoi il n'apparaît pas dans le bilan en annexe.

L'ESF était l'outil du Trésor américain pendant les années 1930, et sa mise en œuvre s'inscrit dans le projet de stabilisation internationale du Trésor, notamment à partir de 1936. Ce n'est pas un hasard si, au début des négociations avec la Grande-Bretagne en 1943, White propose un plan au nom évocateur, « *International Stabilization Fund* ».

Chapter 4 Triffin Dilemma and Regional Monetary Approach: An Appraisal

Abstract

Robert Triffin (1960) has been the first to formalize that, under the gold exchange standard, the key currency issuing country faced a dilemma. Either the United States would stop providing more dollar balances for international trade and finance, leading to world stagnation and deflationary bias in the global economy; either the United States would continue to provide more of the international reserve currency, leading ultimately to a loss of confidence in the dollar. This chapter shows that the formulation of this dilemma is the consequence of Triffin's early critics of the Bretton Woods system in the 1940s leading him to advocate a reform of the international monetary system at the regional level, ie. the European one, in the 1950s.

“This substitution of a general, multilateral agreement for the present network of bilateral agreements would find its most practical expression in the creation of a European Payments Union.” (Triffin, in RTPY, 1947, box 19, p. 4)

4.1 Introduction

This chapter focuses on Robert Triffin's critics of the Bretton Woods system and his proposals to reform it at the regional level in the 1940s and in the 1950s. Triffin (1911-1993) is traditionally associated with his famous 1960 book, *Gold and the Dollar Crisis*, in which he diagnoses the instability of the gold exchange standard grounded on the gold convertibility of the dollar. This diagnosis, known as the Triffin dilemma¹, is as follows: if the United States (thereafter US) stops running balance of payments deficits, other countries will see their main source of creation of international liquidity reducing, limiting world trade expansion and potentially leading to world deflation. On the contrary, excessive US balance of payments deficits fuel world economic growth with international liquidity, that would undermine other countries' confidence in gold convertibility of dollar balances. Considering that the United States will not be able to provide necessary amount of liquidity for sustained global growth, Triffin forecasted, "within a relatively short span of years, (...) a new cycle of international deflation devaluation and restrictions, as it did after 1929" (1960, p. 70). It was exactly the opposite happened since the US expansionary monetary policy since the 1950s, guided by national considerations, fueled global inflation. Nevertheless, Triffin's analysis has rightly stressed the inherent instability of the gold exchange standard and announce its ineluctable demise. A purely historical analysis of the 1950s, leading us to think back of the circumstances of the time, as does Allan H. Meltzer (2009, p. 221), presents the Triffin dilemma as the consequence of the growing role that the dollar had in the international monetary system since the 1950s. We consider that this approach leads to a misunderstanding of the origins of the Triffin dilemma. This chapter shows that Triffin's critics of the Bretton Woods system were prior to the dollar glut of the late 1950s, leading him to formulate concrete propositions for European monetary integration to escape what will become the dilemma.

Triffin's formative and first professional experiences are of importance to understand his carrier as an economist and policy adviser. Born in Belgium, under graduated in economics at the University of Louvain in 1935, Triffin studied economic cycles theory under the leadership of Léon H. Dupriez, a Harvard-trained economist, who introduced a

¹ It was not Triffin but Oscar L. Altman (196, p. 164) who first used the term "dilemma".

statistical method to test business cycle theory in Europe. In the line of this tradition, Triffin published two works criticizing Cassel's purchasing power theory², stressing the necessity to distinguish the structure of prices in a country – prices of raw materials or finished products but also industrial and agricultural goods that were imported and exported – in order to understand the balance of payment adjustment mechanism. In 1935, Triffin went to Harvard to achieve his PhD dissertation, under Schumpeter's direction and Leontief and Chamberlin's guidance. Far from his first empirical works, Triffin made a dissertation on *General Equilibrium and Monopolistic Competition*, defended in 1938³. In 1942, he was hired as Chief of the Latin America section of the Board of Governors at the Federal Reserve System in Washington. This opportunity to join an American administration was a turning point in Triffin's career because he abandoned pure theory in favor of monetary and policy-oriented economics. Between 1942 and 1946, Triffin became a money doctor and was sent to Latin American countries at a time when the money doctoring orthodoxy was replaced by a new form of thinking national and international adjustment mechanism in southern countries⁴.

In his article about the origins of the Triffin Dilemma, Ivo Maes (2013) rightly points out the continuity of Triffin's thinking on “the vision that the international adjustment process was not functioning according to the classical mechanisms” (Maes, 2013, p. 1145). This consistency throughout Triffin's career in the 1930s and the 1940s, pointing out the discrepancy between the economic theory and the facts, provides a better understanding of his analysis of the gold exchange standard instability. However, we consider this analysis as incomplete since it is obscuring Triffin's regional monetary analysis and his first critics of the Bretton system in the second half of the 1940s. Indeed, in 1946, Triffin became Director of Exchange Control at the International Monetary Fund (thereafter IMF) at a

² “*Les mouvements différentiels des prix de gros en Belgique de 1927 1934. Calcul et interpretation d'indices de groupes comparables*” (1935) and “*La théorie de la surévaluation monétaire et la dévaluation belge*” (1937).

³ Triffin was granted a scholarship by the Belgian Fondation Universitaire to study at Harvard in the goal then to return to Belgium and to be appointed at the University of Louvain coupled with a part time assignment in the Research Department of the National Bank of Belgium. According to him, “A few weeks at Harvard, (...), sufficed to convince me that what I missed most was an adequate training in pure theory, then taught at Harvard by Professor Schumpeter whose broad culture in that field, and others, was as unique as his class showmanship” (Triffin, 1981, p. 241).

⁴ According to Eric Helleiner (2003, p. 249), “in place of currency boards and the gold standard, they [Latin American countries] introduced capital controls, more flexible exchange rates, and powerful national central banks designed to serve the domestic goals of rapid industrial development and nation-building”.

time when the young Bretton Woods institution did not succeed in providing a multilateral system of payments based on full currencies convertibility. According to Triffin, because countries were not prepared to trade on dollar-convertibility, bilateralism and trade and exchange restrictions were unavoidable in the immediate postwar years. As a remedy, Triffin made reform proposals to cope with the structural IMF's inability to eliminate exchange restrictions on current transactions and to outlaw bilateral payments arrangements. In a series of IMF memoranda released between 1947 and 1949, Triffin advocated for a European clearing union, similar to Keynes's International Clearing Union, aiming at fostering and liberalizing European trade, and economizing international reserves. First at the IMF and then at the Economic Cooperation Administration – which administrated the Marshall Plan – Triffin succeeded in promoting his ideas, giving rise to the European Payments Union (thereafter EPU) in 1950. The success of such an institution during the 1950s strengthened Triffin's belief to call into question the architecture and functioning of the Bretton Woods system, stressing that an international monetary system centralized around the US currency and policy did not foster its flexibility and stability⁵. Barry Eichengreen (1992, p. 203) and Michael D. Bordo and Eichengreen (1998, p. 21) argue that Triffin would have already developed what will become the dilemma in a 1947 article that sums up his analysis about international liquidity issue after his money doctoring missions. Even if this article is enlightening, especially since Triffin advocates for a flexible international monetary system able to provide enough international liquidity, we do not share the authors' analysis. In 1947, Triffin did not consider that the gold exchange standard was unstable *per se* because a national money is used as an international one. His analysis of the Bretton Woods defects and his proposals for a decentralized reform of the international monetary system was carried by step. Jacques de Larosière referred to the “pragmatism as a practitioner” and as “a man of action” (1991, p. 136) to qualify Triffin. In the second half of the 1940s, Triffin was pragmatic and tackled with the policy problem in Europe. His experience in Europe and his further reflections on the operation of the monetary system will give Triffin the arguments to propose early in the 1950s an analysis and remedies that will be exposed in his 1960 book. Actually, the

⁵ This idea was suggested by Guido Carli, former President of the EPU and Governor of the Bank of Italy: “(...) it is probable that Triffin's close involvement with and understanding of the EPU led to his early diagnosis of the ills that would eventually undermine the system of stable but adjustable exchange rates based on the dollar as the primary reserve asset” (1982, p. 167).

formulation of the Triffin dilemma in 1960 was the consequence and not the cause of Triffin's involvement into broader regional monetary integration.

Although Triffin was a prolific writer throughout his career, we have studied his archives located at the University of Louvain in Belgium and Yale University in the US. This archival work has confirmed our intuition that the study of the 1940s and the 1950s is crucial to understand the origins of the dilemma. Our analysis will be on double level: the first level is more theoretical and shows that only three years after the 1944 Bretton Woods negotiations, the debate on the nature of the international monetary system carried on. The second level, historical, concerns the way that Triffin constantly underpinned his view of a regional monetary integration to make proposal for a reform of the international monetary system. Throughout our analysis, we will highlight that the international liquidity⁶ issue – its use, its provision and its composition – was at the core of Triffin analysis when he questioned the ability of the gold exchange standard to make compatible the conduct of discretionary national economic policies and the respect of balance of payments equilibrium. The **Section 4.2** deals with Triffin's critics in the 1940s of the supposed working of the international gold standard. Indeed, Triffin attempted to highlight the discrepancy between the theory and the facts, questioning the automatic and symmetric features of such a system. In that way, Triffin pointed out the necessity to have a flexible international monetary system providing sufficient international liquidity to enable countries to conduct counter-cyclical monetary policies. The **Section 4.3** examines Triffin's first proposal for a European clearing union in order to promote trade liberalization and provide international liquidity. Triffin is known as one of the EPU architects and we will reinforce this assertion by a comparative analysis between his proposal made in his IMF memoranda and the 1950 EPU. The **Section 4.4** is devoted to present the Triffin dilemma in the light of the analysis previously offered. We will concentrate our attention on Triffin's continuous involvement into a deeper regional monetary integration in order to cope with the inconsistency of the Bretton Woods system. The **Section 4.5** concludes the chapter.

⁶ International liquidity has to be understood as resources readily available for monetary authorities in order to finance balance of payments deficits and defending exchange rate stability. These resources could be liquid assets, such as gold and foreign exchange, or facilities for borrowing abroad.

4.2 A case for a more flexible international monetary system (1942-1947)

Triffin's academic career at Harvard was interrupted during the summer 1942 when the US joined the second world war⁷. To work on post-war reforms, US government administrations, such as the Treasury or the OSS, launched a large surge of recruitment among American universities. Triffin accepted to join the Federal Reserve Board (thereafter FRB) in order to head the new Latin America section. Between 1942 and 1946, Triffin led money doctor missions in countries such as Paraguay, the Dominican Republic, Ecuador and Guatemala. From an analysis of the economic structure of the Latin American countries, Triffin advocated monetary and banking reforms in order to support the long run objective of economic development. In a series of articles published between 1944 and 1947, Triffin challenges the theoretical framework in which were designed the Latin American central banks in the 1920s, highlighting the gap between the orthodox gold standard theory and the reality of the international gold standard operation. Triffin's recommendations for Latin American countries, especially the promotion of counter-cyclical monetary policies, were grounded on the understanding of this gap.

4.2.1 Criticism of the orthodox view of gold standard operation

From his thorough empirical analysis of the Latin American countries situation, Triffin depicts the balance of payments adjustment mechanism within the orthodox theory, based on the hypotheses of automatism and symmetry. The orthodox theory ascribed balance of payments disequilibria to domestic price and cost levels, and interest rates disparities between countries. A deficit in the balance of payments, resulting in gold exports, could only be absorbed by a contraction of the domestic money supply. According to Triffin:

⁷ After obtaining his PhD, Triffin returned to Belgium in the fall of 1938 but failed to find any position because of the recruitment policy of Belgian institutions at that time. Triffin reminded that "a decent number of Flemings would have to be appointed first in order to approximate parity with the Walloons, who had up to then filled most of the existing openings" (Triffin, 1981, p. 241). Later, Triffin pointed out that Dupriez, his former professor at the University of Louvain, was disappointed that he did not continue the industry localization studies at Harvard. Moreover, Dupriez wanted him to achieve another PhD at Louvain. See Catherine Ferrant and Jean Sloover (2010, p. 27). Therefore, in 1939, Triffin accepted an appointment as instructor in economics at Harvard.

The automatic adaptation of the money supply to the fluctuations of the balance of payments was, of course, considered as perfectly normal and desirable in the orthodox gold-standard theory. A favorable or unfavorable balance of payments was taken as a sign of a fundamental disequilibrium in international price and cost levels, and it was assumed that the disequilibrium would be corrected by the domestic expansion or contraction brought about by the inflow or outflow of exchange. (Triffin, 1944, p. 108)

Indeed, the contraction of money supply restores the balance of payments equilibrium through two transmission channels, the capital and goods flows:

The automatic monetary contraction produced by gold exports would raise interest rates and attract capital from abroad. It would at the same time exert a downward pressure on domestic prices and costs, thus stimulating exports and discouraging imports. Both of these movements – capital and trade – would tend to correct the balance of payments deficit in which they originated. (Triffin, 1947a, p. 48)

So the automatic adjustments of the balance of payments rely on market forces and central banks are supposed to follow the rules of the game policies, “which deprives them of real any control over the supply of money and credit” (Triffin, 1944, p. 96).

To sum up, the orthodox thinking, based on the automatic and symmetric features of the adjustment mechanism, left no room to monetary management by central banks. Triffin rightly reminded that this thought of pattern “inspired so much of the academic thinking and legislative controversies regarding national and international monetary mechanisms during the nineteenth and even the twentieth century” (Triffin, 1947a, p. 49) while it offers an unrealistic description of the gold standard operation. In the 1920s, this view was the cornerstone of the money doctoring missions led by the US officials in Latin American countries which used to set up rigid monetary systems, such as currency board or gold exchange standard. The leading figure of these policies was Edwin W. Kemmerer (1875-1945) who was committed to set up a gold exchange standard in countries such as Colombia, Chile or Ecuador, because they could not support the heavy cost of holding metallic reserves for internal and external circulation (Rebeca Gomez Betancourt, 2008, pp. 230-235). In Kemmerer’s view, monetary policies in gold exchange standard countries

could be exclusively oriented towards the stability of exchange rate with the mother country's currency, i.e. the US dollar⁸.

Triffin raised criticisms to the orthodox theory, highlighting that it developed only one special category of disequilibria, “originating in cost maladjustments between a single country and the rest of the world” (Triffin, 1947b, p. 322). The assumptions whereby the world consists of homogenous countries and economic imbalances are only national did not stand the study of facts. According to Triffin:

The most cursory examination of statistical data clearly shows that many of the most spectacular disequilibria in balance of payments are *worldwide* in scope, and must be traced to cyclical fluctuations of an international character rather than to national price and cost maladjustments. (italics in the text, Triffin, 1947a, pp. 55-56)

Triffin pointed out another category of disequilibrium which results from the international business cycle and “make the problem of monetary stability in Latin American countries radically different from that face by older, more diversified economies” (Triffin, 1945, p. 7). Denied by the orthodox theory, an asymmetry structures the international monetary relations between the center – industrial and capital exporting countries – and the periphery – primary goods producing and capital importing countries. In the line of Ralph G. Hawtrey (1919) or William A. Brown (1940), Triffin highlights the hierarchical structure of international finance, centralized around the creditor position of England⁹. Considering the leading position of London as an international financial center, the orthodox theory failed in describing the British adjustment mechanism nor the way that global cycles originated from changes in British discount rate. The international gold standard was in fact a gold-sterling exchange standard whose the leader was the Bank of England. In order to respond to domestic goals (stabilizing domestic prices and making money market more liquid), the Bank of England conducted monetary policy by controlling domestic credit. But changes in its monetary policy impacted the financial conditions of foreign countries

⁸ Central banks established by Kemmerer had the duty to reproduce the gold standard mechanism substituting exchange reserves for gold flows to correct balance of payments fluctuations and stabilize the exchange rate. So money supply variations were closely tied to the external constraint and “the monetary function of the central banks was largely limited to the conversion of foreign exchange surpluses or deficits into equivalent changes in the volume of currency or commercial bank reserves” (Triffin, 1945, p. 7).

⁹ Triffin never mentioned Hawtrey while the latter had a clear-sighted analysis of the asymmetrical structure of the international monetary system in the 1910s. See P-H Rojas (2015, p. 3).

because their bills were contracted in London in order to finance international trade. Triffin points out:

To a very large extent, increases in the London discount rates brought about a readjustment in the British economy, but through their effects on the outside world and especially on the agricultural and raw material countries. (1947a, p. 59)

The failure of British discount policy to effect the type of readjustment contemplated in classical theory (...) was due primarily to the *international* character of the London discount market, whose expansion and contraction affected foreign prices as much as or more than British prices. (italics in the text, Triffin, 1947a, pp. 62-3)

The contraction of international credit, understood as British credit, not only deprived British demand for goods but also international demand tending to decrease foreign prices. As a financial center, England was able to improve its terms of trade – domestic prices relative to foreign prices – and attract short-term capital to restore balance of payments equilibrium without resorting to deflationary policies advocated by the orthodox theory.

Moreover, this theory is of no help to understand the operation of the gold standard in peripheral countries. According to Triffin, the balance of payments fluctuations in peripheral countries, especially in Latin America, are not governed by international cost comparisons but “dominated by the international movements of capital and by the fluctuations of imports and exports” (Triffin, 1944, pp. 104-5), consequence of the international business cycle. The peripheral countries are often poorly diversified economies, specialized in the production of one or two goods whose the supply “may be determined by the vagaries of the weather” and the demand “is predominantly influenced by the state of the business cycle in the buying countries”. (Triffin, 1944, p. 108). The fluctuations of their balance of payments are reinforced by violent shifts in capital flows resulting from speculative calculations. Contrary to the core countries, in peripheral countries, “capital tended to flow toward them in times of prosperity and away from them in times of depression, irrespective of their discount policy” (Triffin, 1947a, p. 60). Understanding that balance of payments disequilibrium did not result from price and cost levels disparities but from world cycles, Triffin called for a revision of orthodox remedy.

4.2.2 The advocacy for counter-cyclical monetary policies

Triffin's analysis and bold reform proposals were facilitated by the development of a new neighborhood policy by the US administrations¹⁰. According to Helleiner (2003, p. 255), the US policy makers' stance evolved during the 1930s. Following the demise of the international gold standard in 1931 and the effects of the Great Depression in the 1930s, the US officials from the Treasury and the Fed became aware of the vulnerability of the southern countries' economies, most of them being agricultural and suffered largely from volatile capital flows. They considered that orthodox policies "magnified – rather than minimized – the impact of international instability on the domestic economy in this context" (Helleiner, 2003, p. 251) and did not promote domestic economic activity and high level of employment¹¹.

It was in this context of break in US financial diplomacy that Triffin began his work at the FRB. Unlike Kemmerer missions, Triffin missions aimed at highlighting the specificities of each country to adapt the recommendations for monetary and banking reforms. According to Triffin:

The nature of the essential monetary problems, the present level of development reached by national monetary institutions, and the availability or efficacy of various techniques of control are fundamentally different from country to country. A full understanding of these differences and of these national characteristics is an indispensable prerequisite to any intelligent approach towards international monetary cooperation. (Triffin, 1944, pp. 94-5)

Indeed, Triffin insisted on the fact that peripheral countries' specificities differed from those in the core countries. Contrary to England or the US, their financial and banking system were not so developed making inoperative the control of money supply via the discount rate and open market policies. Moreover, foreign banks financed development in peripheral countries, making the latter strongly dependent of capital flows from financial

¹⁰ This change in thinking the US financial diplomacy *vis-à-vis* Latin American countries probably explains why the FRB has given Triffin full autonomy and independence during his money doctoring missions, not given any prior instructions. See Triffin (1981, p. 242).

¹¹ The US cooperation policy towards Latin America was not only driven by the desire of economic development. Reminding the geopolitical issue in the context of the second world war, Helleiner (2009, p. 6) writes that "this shift [in neighborhood policy] emerged partly in the context of US worries about growing German influence in the region".

centers. In case of external disequilibrium in a peripheral country, the orthodox rules of the game policies strengthened domestic instability.

(...) The classical prescription for remedial policy becomes as misleading as the diagnosis on which it is based. Deflationary efforts at readjustment by individual countries are largely self-defeating because they aggravate the depression rather than cure the disequilibrium. Any initial success that they may have in curbing imports or expanding exports aggravates the difficulties in their supply and exports markets as well as in competing countries, and leads to similar and mutually offsetting measure of defense or retaliation. (Triffin, 1947a, p. 57)

To avoid the propagation of the cycle from the center to the peripheral countries, that accentuated world economic fluctuations, Triffin advocated the establishment of central banks able to manage the monetary and banking system through a variety of instruments: changes in reserve requirements, quantitative and qualitative banking loans, the empowerment by the central bank to undertake open-market operations to control money and credit. Triffin's reforms were grounded on the slackening of the rigid link between legal tender money/deposits and international reserves (gold and foreign exchange)¹². Triffin developed another tools, such as multiple exchange rates and exchange control¹³, to relieve the burden of international instability on Latin American countries.

Let us note that Triffin's views on monetary management in the 1940s was also influenced by Raúl Prebisch, the leading figure of the center-periphery analysis, who was the designer of the Argentinean central bank created in 1935 of which he was the first General Manager (1935-1943). This institution was designed to offset the erratic fluctuations of the balance of payments, strengthening his power over the monetary and banking system. Prebisch aimed at smoothing the effects of economic cycles through the use of international reserves so as to ensure monetary stability. Triffin considered that the

¹² As developed earlier, this set of ideas was not so new when we analyze the American monetary thought in the 1930s, especially at the US Treasury. Like Triffin, Harry D. White, one of the architects of the Bretton Woods system and member of the US Treasury, was deeply involved in these kind of recommendations for US economy during the 1930s, such as control of capital flows or changes in reserve requirements, in order to manage the monetary and banking system (Rojas, 2016). Helleiner (2014, p. 86) showed that White was also committed in this new approach of money doctoring in Latin American countries, leading missions in Cuba in the second half of the 1930s.

¹³ Triffin considered that these measures were more effective alternatives than traditional policies, such as deflation or devaluation, which did not sufficiently target the categories of transactions. For instance, the exchange control could reduce the balance of trade deficit by restricting less essential imports, such as luxury goods.

work achieved by Prebisch in Argentina must serve as an example for other Latin American countries:

In the short period since 1935 the Central Bank of Argentina has developed into an outstanding institution among central banks not only in Latin America but in older countries as well. Credit for this achievement is due largely to the brilliant leadership of Raoul Prebisch, general manager of the bank during most of this period (Triffin, 1944, p. 100-1)

Triffin met Prebisch for the first time at the central bank of Mexico in December 1943 where he learned from him about the role of the central bank and the functions of stabilizing activity in a view of economic development. Therefore Triffin invited Prebisch to join him during his missions in Latin America. In a FRB report related to his trip in Argentina in January 1945, Triffin wrote:

I was in Buenos Aires for about three weeks. A great deal of that time was spent in consultation and conversations with Dr. Raul Prebisch. (...) Measured by any standards – not merely by Latin American ones – Prebisch is an outstanding personality in our field. I was surprised as he was to encounter an extraordinary amount of agreement between the ideas which we have ourselves developed in the last years and the conclusions to which he had been led by his practical experience in the Argentine Bank. (RTPY, box 3, Triffin, 1945, p. 3)

Triffin never ceased to remind the importance that had the work of Prebisch in this field on the development of his ideas in the 1940s¹⁴.

According to Triffin, not only peripheral countries had to promote a form of monetary management that insulated the national economy from international disruptions, but also the core countries had the responsibility to smooth worldwide fluctuations. Since the cyclical disturbances originated from their leading position, the core countries had to follow a new set of economic policies stabilizing purchasing power of money and income. On that topic, Triffin was clear:

The only satisfactory corrective of cyclical disequilibria in the balance of payments which are not due to fundamental maladjustments in international price levels thus lies for most nations,

¹⁴ On the relationship between Prebisch and Triffin during the 1940s, see Helleiner (2009, 2014), Matías Vernengo and Esteban Pérez Caldentey (2012).

not in internal deflation according to the “rules of the game” recipe, but in *the restoration of economic activity and purchasing power in the centers of the cyclical disturbance* (our italics, 1947a, p. 64)

Regarding the peripheral countries, they would have to resort to international reserves, such as gold and foreign exchange, to cope with worldwide fluctuations in economic activity if they want to preserve domestic stability. Indeed, if a country ran balance of payments difficulties, monetary authorities had to meet large demand for foreign currency. Since the country did not tight domestic credit, the depletion in international reserves could lead to liquidity difficulties and exchange crisis. Triffin was conscious of that problem, noting that the general adoption of counter-cyclical monetary policies “would tend to amplify the instability of national reserves of gold and foreign exchange” (1947a, p. 64). That’s why this kind of policies “requires a high level of international reserves (...) and the willingness to spend these reserves liberally in times of crisis (...)” (Triffin, 1947a, p. 80).

Triffin strongly advocated a general revision of the way of thinking the international gold standard operation and monetary policies design in order to reconcile national objectives with international balance. This process was the result of Triffin’s career at the FRB when he was involved in money doctoring missions. According to Triffin, the international monetary system had to be more flexible in the provision of international reserves to enable countries to cope with temporary deficit in the balance of payments resulting from global cycles.

4.3 Triffin’s advocacy for European monetary integration (1947-1950)

The previous section was devoted to analyze the reasons why Triffin supported the use of international reserves. In case of temporary deficit of the balance of payments, linked to the global economic cycle, countries should not reduce the deficit by leading a deflationary policy but rather finance it by resorting to international reserves. This present section tackles with a complementary issue: the provision of international liquidity. Did the Bretton Woods agreements set up a financial mechanism making available to the member countries additional international reserves in times of need? It did in theory since the innovation of the agreements was the establishment of the IMF whose aim was to supply additional international reserves for deficit countries. According to Triffin (1947a, p. 80),

“when reserves are insufficient, foreign or international assistance – such as is contemplated under the International Monetary Fund – will be necessary”. This assistance would both provide reserves for deficit countries without resorting to internal deflation or exchange control and protect other countries from being impacted by the effects of these measures. However, the international monetary system that prevailed after the second world war was far different from the system that the Anglo-American delegations foresaw. Actually, the IMF was unable to carry out its missions of overseeing the international monetary system – reducing exchange restrictions and providing the return to currencies convertibility – and smoothing countries’ external adjustment. In time of bilateralism and dollar shortage, characteristics of the second half of the 1940s, Triffin, then Director of Exchange Control at the IMF, supported a clearing mechanism to facilitate the implementation of the Marshall plan in European countries.

4.3.1 Bilateralism and liquidity shortage: the IMF’s failure

The Bretton Woods system represented an unprecedented experiment in the implementation of rules and international institutions so as to reconcile international balance and autonomous national economic policies. Briefly, the purposes of the IMF (Article I, IMF Articles of Agreement), were to promote (i) international monetary cooperation, (ii) to facilitate the maintenance of full employment and rapid growth, (iii) to maintain stable exchange rates and avoid competitive devaluations, (iv) to provide a multilateral system of payments and eliminate exchange restrictions, (v) to provide resources to meet balance of payments disequilibria without resort to drastic measures, and (vi) to shorten the duration and lessen the degree of payments disequilibria. The IMF articles developed the necessary means to achieve these goals. Firstly, the Article IV of the Agreement seeks to attain the objective of exchange rate stability by requiring members to agree on a par value of their currency either in gold or in dollar. This was achieved at the end of 1946 by major European countries. Secondly, the IMF aims at establishing a multilateral system of payments based on currencies convertibility for current account transactions (Article VIII) while allowing capital control (Article VI, Section 3). However, the IMF allows member countries to postpone the return to convertibility for current account transactions for an indefinite transition period (Article XIV). Actually, the

currencies inconvertibility period lasted until 1958. Finally, the IMF offers facilities to finance short-term balance of payments disequilibria (Article V). Indeed, members countries could borrow from the IMF a foreign currency in exchange of its own in order to settle a deficit with a particular country¹⁵. To avoid the shortage of a particular currency in IMF resources, the IMF could activate the scarce currency clause (Article VII). When it appeared to the IMF that its holdings of a particular currency were likely to be exhausted – a creditor country’s currency – the Board of Directors should propose to declare this currency scarce and above all, authorize other countries to limit and ration country’s exports whose currency has been declare scarce. This clause meant to avoid the perpetuation of an overall surplus of a country towards the world (see **Annexe 5 : Débats anglo-américains (1943) en vue de la conférence de Bretton Woods (1944)**).

Despite the innovative nature of such an institution empowered to foster international monetary cooperation, the IMF failed in achieving its objectives. Actually, the economic environment in which the IMF was supposed to intervene was far different from the immediate post-war period. According to Brian Tew (1952, p. 94), “many of the Fund’s failures have undoubtedly been due to the fact that it has had to bat on a bad wicket: the stresses and strains of the post-war years have been of such unparalleled severity that the new organization has never had the chance of proving its value in relatively normal circumstances”. Far from promoting multilateralism and providing sufficient international reserves, the IMF failed to avoid bilateral approach of economic relations and world liquidity shortage.

After the war, only the dollar was both convertible into gold at fixed parity (\$35 = the ounce of gold) and in other currencies¹⁶. When the IMF went officially under way in March 1947, most of countries decided to extend exchange and trade controls, postponing the return to full currencies convertibility. The reason has to be found in the economic consequences of the war. Indeed, following the destruction of European industry and the

¹⁵ According to the Article III, each country could borrow from the IMF up to an amount limited by its quota. IMF’s resources are made up of countries’ initial contributions – equal to the borrowings rights – divided up between 25% in gold and 75% in national currencies.

¹⁶ We follow Triffin’s distinction (1950, pp. 5-6) between gold convertibility of currency – the ability for private individuals to convert freely national currency into gold at the official fixed price – and the convertibility on the foreign exchange market, which referred to the ability for private individuals to buy and sell freely the national currency into a currency of another country. Under the Bretton Woods system, except for the US, countries were only concerned with the second form of convertibility.

growing needs for consumption and capital goods, European countries ran a structural current account deficit with the US until the mid-1951. According to Eichengreen (1993, p. 11), this deficit amounted to \$5.6 billion in 1947, \$3.4 billion in 1948 and \$3.2 billion in 1949¹⁷. In that context, exchange and trade restrictions enabled countries to allocate the sole means of settlement acceptable by all, the dollar. However, these measures were supplemented by bilateral arrangements that were negotiated between each pair of countries and consisted of licenses and quotas for imports and exports. But these agreements resulted in a trade diverting policy and strengthened the reallocation of international reserves:

To maximize the availability of hard currency [gold and dollars] that might be used to purchase from the dollar area the imports to which they attached priority, European countries restricted their imports from the rest of Europe to the value of their receipts in each European trading partner's currency. (Eichengreen, 1993, p. 13).

Bilateralism permitted a resumption of trade between countries partners thanks to the opening of mutual credit lines which allowed them to escape from the strict bilateral balancing of their imports and exports. These reciprocal overdrafts rights were promoted on the idea that surplus and deficits would alternate between countries, permitting to a deficit country to repay the credit allowed when later it will be in surplus. But these bilateral agreements were constraining because there was no surplus and deficits alternating between countries, leading to credit lines' exhaustion:

Experience demonstrated (...) that some countries tended toward persistent deficits, others toward persistent surplus. Once credit ceilings were reached, additional credits were not forthcoming. And once credits were exhausted, bilateral clearing became increasingly constraining. (Eichengreen, 1993, p. 16)

The dollar shortage, fueled by the structural current account deficit from European countries towards the US, was reinforced by the overvalued official parities established at the end of 1946. Bordo (1993, p. 39) points out the IMF pressures on members' countries

¹⁷ European countries needed immediate key imports such as foodstuffs to meet the basic needs. Moreover, European industry did not produce exports that would have financed this increase in imports. To boost industrial activity, new and improved capital was required. The need for both primary and capital goods explains the extent of the European current account deficit.

to declare the parity of their currencies as soon as possible. In this context of general disequilibria, the IMF considered the scarce currency problem in 1947 but did not decide to take action under the Article VII, nor later. The Executive Directors of the IMF were aware of the origins of the gap between the demand for and the supply of dollars, that resulted “from a shortage of productive facilities, particularly in European countries, with which dollars could be earned. The real scarcity therefore was one of production, and not of dollars” (John K. Horsefield, 1969, p. 193). Since the IMF was “not intended to provide facilities for relief or reconstruction or to deal with international indebtedness arising out of the war” (Article XIV, Section 1), European countries hardly draw resources from the institution during the second half of the 1940s.

Facing the gap between the means of the IMF and the challenges of the post-war years to restore an international economic and monetary system, the Truman administration decided to implement the European Recovery Program; known as the Marshall Plan. It has to be highlighted that the US desire to finance European reconstruction and allow European trade resurgence was grounded on a proactive policy of communism containment¹⁸. As a condition for US help, European countries had to agree on a program to allocate US loans and donations¹⁹. A Conference on European Economic Cooperation (thereafter CEEC) was held in Paris in July 1947, giving rise to an official committee of western European governments that had to agree on a four-year programme. Simultaneously, the US Congress authorize the creation of the Economic Cooperation Administration (thereafter ECA) to administrate the Marshall Plan. From the beginning of the summer of 1947, the IMF entered the discussions between the United States and European countries, under the leadership of the new Managing Director, Camille Gutt, the former Belgian Minister of finance.

¹⁸ After an official visit to Moscow early in 1947, Marshall, Secretary of State, realized that Joseph Stalin did not intend to reduce its influence on European territories occupied by the Soviet army, the reverse was the case. According to Jacob J. Kaplan and Günther Schleiminger (1989, p. 15), “Regardless of Soviet behaviour to their east, economic hardship seemed to strengthen the appeal of western European Communist parties, particularly in France and Italy. Thus a westward expansion of Soviet hegemony appeared within the realm of possible”.

¹⁹ Marshall’s speech on 5 June 1947 at Harvard was explicit: “It is already evident that, before the United States Government can proceed much further in its efforts to alleviate the situation and help start the European world on its way to recovery, there must be some agreement among the countries of Europe (...) This is the business of the Europeans. The initiative, I think, must come from Europe”.

4.3.2 A multilateral approach: Triffin and the European Payments Union

After four years at the FRB, Triffin was recruited by the IMF on July 1946 and appointed Director of the Exchange Control. Until the mid-1947, Triffin continued the projects started during his years at the FRB, especially Latin American missions. Immediately after the IMF joined the negotiations between the CEEC and the ECA, Gutt and Edward M. Bernstein – then Research Director of the IMF – asked Triffin to work on European first proposals. According to Kaplan and Schleiminger (1989, p. 362), the first projects of multilateralization of payments, based on the clearing mechanism, were supported by Felix LeNorcy, an official of the French Ministry of Finance, and by the Benelux officials during the CEEC meeting in July 1947. Despite the failure of these first proposals, Triffin studied it, especially the Benelux plan, and began to shape his first proposal for a European clearing union (Jérôme Wilson, 2015, p. 461). Between 1947 and 1949, Triffin issued a series of eight IMF memoranda to promote multilateralization in Europe²⁰.

In his first memorandum, *The Unresolved Problem of Financing European Trade*²¹, written in September 1947 but released by the IMF in December 1947²², Triffin points out that “the difficulty to be met here is one of providing adequate machinery [to resurge European trade], and not merely financial assistance in terms of gold and dollars” (RTPY, Triffin, 1947, p. 1). Indeed, financial assistance is required to supply European countries in hard currency in order to meet the deficit with the dollar area, but Triffin considers that a mechanism should be implemented between European countries to avoid resorting to reserves. According to Triffin (RTPY, 1947, p. 2), “as long as gold and dollar reserves remain at their present low level, only further credits can relieve the pressure for bilateral balancing of inter-European trade”. So he proposed to multilateralize all European claim and debts, and to extend credit lines within a multilateral framework. In other words, this multilateral agreement would transfer the credits commitments which existed under the

²⁰ RTPY, box 19, “Summary of Triffin’s IMF memoranda and proposals for the multilateralization of Intra-European credits and settlements (September 1947 – December 1949)”.

²¹ RTPY, box 19, “Triffin’s EPU proposals...1947-1948”, *The Unresolved Problem of Financing European Trade*, December 16, 1947, IMF Staff Memorandum N° 160.

²² According to Wilson (2015, pp. 460-61), the IMF staff was not enthusiastic by Triffin’s proposal because it considered that a clearing mechanism favored the exchange of non-essential goods, delaying the European economic reconstruction. Moreover, since the debate on the implementation of the Marshall plan was a political issue, outside the scope of the IMF, the IMF staff felt uncomfortable.

bilateral agreements from individual to all countries participating in a clearing house, entitled “European Clearing Union” (RTPY, Triffin, 1947, p. 4).

The total credit commitments made by each country to other Clearing members would be paid into the Clearing in its own currency, and the country would receive an equivalent balance in the Clearing which it could then use to settle current account deficits with any Clearing member. (RTPY, Triffin, 1947, p. 4)

The first feature of Triffin’s plan is the compensation mechanism which enables to offset a large part of bilateral imbalances between countries and the European Clearing Union. The benefit of the clearing house is the economy of means of settlement (gold and dollar) coupled with the participating countries’ renouncement to discriminate European partners. Moreover, balances in the Clearing should be expressed in a new unit of account:

This essential aspect of the Clearing’s mechanism could be dramatized by the introduction of an inter-European currency unit, equal in value to one American dollar, and called, let us say, “European dollar” or “interfranc”. (RTPY, Triffin, 1947, p. 4)

According to Triffin (RTPY, 1947, fn1, p. 4), the bookkeeping nature of this new unit may change in the future if European countries deepen monetary integration. For now, Triffin does not propose a European currency. Clearing’s assets would remain in participating countries’ currencies and national currencies would retain their existing independence and autonomy.

The second feature of Triffin’s plan was the payment mechanism of net balances. Indeed, even if a large part of European trade would be settled, some European countries will have a net over-all deficit or surplus toward other European countries; this was the case for respectively France and Belgium. One of the objective of the US aid is to provide European countries for dollars in order to finance these net balances within the European Clearing Union framework. But Triffin raised a second issue: since European countries ran an overall deficit towards the US, it will deteriorate both European Clearing Union’s and countries’ reserves without being sure of replenishing it later. To avoid the paralyzation of the whole clearing machinery, the US aid should be large enough. Related to the problem of the amount of the US aid, Triffin points out the need to “define, for each European country, the maximum deficit which could be reasonably and safely incurred” (1947b, p. 7)

but without defining a clear rule. In a second memorandum, released in May 1948 and entitled *Multilateralization of European Payments Agreements among Fund Members*²³, Triffin does not support an automatic rule in additional credits granted by European surplus to deficit countries:

Further credits may be required in the meanwhile, but their amount will necessarily depend on the prospective lenders' appraisal of the efforts made by each country to redress its situation. (RTPY, Triffin, 1948, p. 423)

In later memoranda, Triffin discusses rules of the financial machinery, especially the proportion of the deficit that could be financed with credit and the one that should be paid in gold and dollars.

Even if Triffin never mentions Keynes's pioneering work on that topic, his proposal for a clearing house fits in the International Clearing Union as a remedy for bilateralism and exchange and trade restrictions²⁴. However, Triffin does not propose yet to replace the dollar by a supranational money; his innovative idea laid on the regional monetary approach to solve European concrete problems. Triffin was pragmatic considering that "[the IMF's] administrative machinery had been planned for a world order in which the Fund could deal with one country at a time in isolation from the others" (Triffin, 1952, p. 270), Triffin asserted that this institution was ill-adapted to regional issues, here the structural European deficit towards the US. The US Treasury and the Fed were strongly opposed to Triffin's proposal for a European Clearing Union. They argued that this "regional liberalization of intra-European trade and payments (...) would stifle worldwide competition and create a high-cost uncompetitive European area, condemned to increasing discrimination and protectionism to fight its deficits with the rest of the world, particularly the United States" (RTPL N782, Triffin, 1977, p. 1). Moreover, Triffin's proposal was seen as a nose thumbing to the IMF while the latter was unable to promote trade liberalization and payments mechanism in Europe. To be fair to Triffin, we highlight that he always tried

²³ RTPY, box 19, "Triffin's EPU proposals...1947-1948", *Multilateralization of European Payments Agreements among Fund Members*, May 7, 1948, IMF Staff Memorandum N° 226.

²⁴ According to Wilson (2015, p. 369), Triffin found out the Keynes Plan in September 1942 when his hierarchical superior at the FRB, Walter Gardner, forwarded him a copy.

to integrate the IMF in his proposals for a clearing union in Europe, especially in making the IMF the supplier of scarce currencies along with the ECA. However, the IMF remains rather reluctant to Triffin's proposals (see Wilson, 2015, pp. 472-501). But the ECA and the State Department shared the same view as Triffin to solve European payments disequilibria. First sent to Paris by the IMF in 1948 to follow European negotiations²⁵, Triffin left the IMF in December 1949 when he was asked to formulate concrete proposals in the name of the US – inside the ECA – to negotiate with the Organization for the European Economic Cooperation (thereafter OEEC)²⁶. After nine months of negotiations, eighteen countries of the OEEC signed the European Payment Union Agreement on 19 September 19 1950 with retroactive effect from 1 July 1950. Triffin 's involvement in the multilateralization of European payments was significant enough for Eichengreen (1993) qualifies him as the EPU architect. Without being too categorical, we cannot deny the importance that had Triffin in the debates within the ECA to establish the EPU face to the reluctance of many officials in US administrations and at the IMF.

The EPU incorporates the broad lines of proposals outlined by Triffin few years ago. Concerning the compensation mechanism, at the end of each month, each EPU's country net balances with each other country were reported to the Bank of International Settlement²⁷, the EPU's financial agent, which offset claims to not individual country but the Union as a whole. Only mattered the net position of each country *vis-à-vis* the rest of the group. Concerning the payment mechanism, net debts could be financed initially with credits, but eventually these liabilities had to be settled in dollars and gold. As in the Keynes plan, the weight of the external adjustment is borne by the deficits countries as well as by the surplus countries. The payment in gold or dollars is determined by a quota allocated to members and by a scheme of borrowings rights and lending obligations (see **Appendix 6: The European Payments Union**). Contrary to Keynes' proposal, the EPU architects, including Triffin, rejected the idea of an automatism in the credits granted by surplus to deficit countries beyond the quota credits. They advocated a case by case

²⁵ It was Triffin's request to be the first technical representative of the IMF in Western Europe. Triffin (1981, ft2, p. 243) reminded that he was appointed "Roving Technical Head of the IMF in Europe", reflecting the absence of a clear definition of his role there. Actually, he took the opportunity to be closer to discussions between European countries and to develop his own ideas on possible remedies, giving rise to calls of order by Bernstein, his IMF superior (Wilson, 2015, pp. 484-96).

²⁶ This CEEC was converted into the Organization for European Economic Cooperation in April 1948.

²⁷ Even in the EPU operation, the IMF decided not to play a role.

evaluation of the opportunity to grant credits, through the control of the EPU's Managing Board. Moreover, the Board was empowered to monitor the economic policies of member countries and to formulate recommendations in case of permanent balance of payments disequilibrium.

Triffin's critics of the inadequate IMF architecture to promote multilateralization echoed back the debates between Keynes and White in the early 1940s. The international monetary system did not provide a mechanism to meet European demand for dollars. In absence of such a system and to reduce this demand, the EPU coupled with the Marshall plan were set up and solved temporarily the scarce currency problem. The ECA allocated dollars to the estimated needs, i.e. to buy American goods, and allowed additional funds to cover the probable net outgo of dollars from the system²⁸. To a certain extent, the EPU finished its task successfully and while it was expected to come to an end in 1952, the EPU was postponed until 1958 when the participating countries restored current account convertibility. Between 1950 and 1958, three quarters of participating countries' balances were offset, the later quarter necessitated payment in gold and dollar. The economy in means of settlements was obvious. Moreover, on the same period, the European trade had more than double in value. The EPU Agreement helped to stimulate trade between European countries, to deter them from discriminate their trade partners and tend to reduce trade and exchange transactions between participating countries. Nevertheless, Triffin acknowledged that even if the "EPU system has restored multilateralism over a wide area, [it] has left intact – and might even increase – discrimination against the dollar area" (1952, p. 299). Indeed, in the EPU framework, European countries were able to maintain their exchange and trade restrictions towards the US. Triffin reminded that the absence of trade liberalization towards the US by European countries was no more than the scarce currency clause (Article VII of the IMF) putting into practice:

So I argued that mutual preferences decided by the EPU were only the equivalent of the clause 7 of scarce currencies, but expressed in a positive form rather than negative, and

²⁸ The Marshall plan helped to establish the EPU's working capital (\$350 million) and in addition gave assistance to member structural debtors. In his 1948 memorandum, Triffin (RTPY, 1948, p. 5) had yet proposed an external aid of \$338 million to constitute the Clearing's working capital.

therefore more easily acceptable by public opinion and the US Congress. (our translation, Triffin, in Ferrant and Sloover, 2010, p. 39)²⁹

Without resorting to full currencies convertibility and relying on the clearing mechanism in a regional cooperation framework, European countries succeeded in coping with dollar shortage and bilateralism. Even if Triffin was not the first to propose a clearing mechanism³⁰, he has become a leading figure in both negotiating the EPU in the end of the 1940s and promoting the idea of multilateralization of payments.

4.4 Triffin Dilemma and Central Banking (1950-1960)

In this section, we examine Triffin's further reflections and propositions for regional monetary approach in the 1950s. According to Triffin (1960), the gold exchange standard is unable to provide a sustainable amount of international liquidity without impeding the stability of the whole international monetary structure. The composition of international reserves appeared problematic in the late 1950s since the dollar shortage situation was replaced by a dollar glut, weakening the net reserve position for the US. Further, provision of international reserves appears to be US' decision to have a large deficit in the current account or to export capital to foreign countries. In other words, under the gold exchange standard regime, the international liquidity issue was utterly tied down to the US state of affairs and policy.

Before presenting the problem in those terms – the Triffin dilemma – in his 1960 book, Triffin developed in the early 1950s a bottom-up approach to reform the international monetary system: his implication in the EPU gave him the theoretical and empirical basis to advocate firstly the systematization to third countries of the compensation mechanism and secondly the development of another form of liquidity. In a November 1951 memorandum transmitted to the ECA, entitled *The Path from EPU to European Monetary Integration*, Triffin reminded that world-wide cooperation was to be

²⁹ Originality written in French: « J'argumentai donc que les préférences mutuelles dictées par l'UEP n'étaient que l'équivalent de la clause 7 sur les monnaies rares, mais exprimé sous une forme positive plutôt que négative, et dès lors plus aisément acceptable à l'opinion publique et au Congrès américain. »

³⁰ See Kaplan and Schleiminger (1989, pp. 360-3) for an account of the source of ideas at the origin of the EPU.

decentralized, “promoting a closer integration between neighboring countries than would be either objectively desirable or politically feasible in a broader framework” (1951, p. 451). The EPU was an example of a first step towards regional monetary integration and was not considered by Triffin as an alternative to the IMF’s objectives. On the contrary, far from being the IMF’s rival, the EPU was seen by Triffin as an integral part of international cooperation framework. So the formulation of the Triffin dilemma is the result of his desire to deepen regional monetary integration under the leadership of a reformed IMF. As developed earlier, the formulation of the Triffin dilemma was the consequence and not the cause of Triffin’s involvement into regional monetary integration.

4.4.1 The European Central Bank

As one of the EPU architects and US representative at the OEEC since 1949, Triffin became the US alternate representative in EPU’s Managing Board in 1950. Disagreeing with the instructions that he received from the new US administration, Triffin resigned in August 1951³¹ and was made professor at Yale University. After several years of negotiations about international monetary issues, both at Washington and in Europe, Triffin strengthened his conviction that monetary reforms had to be implemented at the regional level. In a memorandum, dated from 31 July 1953 and entitled *Convertibility and the EPU*, Triffin saw Keynes’ Clearing Union as an “ideal one” (RTPL N593, Triffin, 1953, p. 9) but regarded it “as still premature and utopian” (ibid.). Moreover, Triffin remains pragmatic and points out the practicability of a closer regional integration rather than a centralized approach promoted in the Keynes’ plan:

(...) It is extremely difficult to create an effective form for quick negotiation among fifty countries or more, on the multiple issues for discretionary decisions by the Union: monetary policy, commercial policy, exchange rates, etc. Such discussions and negotiations can be conducted effectively only between a limited number of participants, all interested in the question at issue, highly interdependent on one another decisions, keenly aware of this interdependence, and willing to trust one another to fulfill the obligations assumed. (RTPL N593, Triffin, 1953, p. 9)

³¹ Triffin reminded this event in its carrier without shedding light on the content of US instructions. However, it could be supposed that the US administration wanted to undermine the EPU. See Ferrant and Sloover (2010, p. 41).

Triffin considered that the generalization of EPU principles to a decentralized international monetary system is a better way to prepare the return to full currencies convertibility. From the early 1950s, Triffin never stopped to consider that “the EPU Agreement [was] only the first of many steps on a long road toward the eventual integration of European monetary policies and institutions” (Triffin, 1966, p. 449).

On a regional scale, Triffin proposed to deal with monetary integration in depth. His final objective was to transform the EPU into a European Central Bank (thereafter ECB), able to lend and rediscount to national central banks, with a unit of account that could be also a means of payments between countries and centralizing participating countries’ international reserves. These three features of such an institution could lead to the creation of a single currency area in which a European currency would be used for international transactions without remove national monies for national transactions. Triffin acknowledged that it would be the natural evolution of the EPU:

The evident value of EPU to its members will ensure their loyalty and their desire to strengthen and develop it themselves, as required by the logic of events. I, for one, feel confident that this will transform fairly rapidly EPU into a Central Reserve Bank for Europe, and may even end up in something approximating a single currency area. (Triffin, 1951, p. 458)

This long run view shapes Triffin’s proposals to deepen European monetary integration. The first step toward a fuller monetary integration in Europe was to build a joint reserve fund for European countries:

Such centralization of reserves is certainly one of the first prerequisites and functions of a European Central Bank. (Triffin, 1951, p. 459)

The concentration of international reserves, originally held by European countries in its own central banks, in the ECB would be a means to economize gold and dollar. The excess credits, for countries which ran a net surplus position beyond the quota against other European countries, would be settled in convertible accounts rather than dollars or gold. Cash economized could guarantee these accounts. According to Triffin:

Unspectacular in itself, the convertible account technique would set in motion the very mechanism out of which modern banking actually developed over the course of history. (Triffin, 1951, p. 459)

The second step towards fuller monetary integration was the strengthening of the EPU managing board influence on the member countries' monetary policies to avoid excessive current account deficit or surplus. With the centralization of reserves and the convertible account technique, the ECB "could place at the disposal of its members [gold and dollars] in case of need" (Triffin, 1951, p. 459). In that way, it could reinforce the influence of the EPU managing board by placing at their disposal larger financial resources to "back up its advice to members" (ibid).

The perpetuation of the EPU through the centralization of reserves is a recurrent idea in Triffin's works during the 1950s. Triffin reminded the importance to create convertible accounts to facilitate monetary transfers inside the EPU and with the dollar area. In order to strengthen the ability of the EPU to lend more to members' countries, these latter should have to contribute to the increase of the EPU's working capital "to finance automatic or special assistance overdrafts facilities to the countries whose convertible account is exhausted, and who lack other resources or current earnings to replenish it" (RTPL N593, Triffin, 1953, p. 13). By centralizing EPU members' reserves, "the convertible account system should develop EPU into a major monetary center attracting a portion at least of the monetary reserves of non-member countries as well as of member countries' (ibid.). This would require the development of the EPU unit of account into a regional means of exchange and store of value (Triffin, 1951, p. 452). Drawing on his experience, Triffin tried to set up an institution in charge of monetary flows between Europe and the Dollar area through a collective management of national reserves (Eric Bussière and Olivier Feiertag, 2012, p. 76). This European monetary framework would aim at avoiding the dollar shortage experienced by European countries in the second half of the 1940s while reinforcing monetary integration at the regional level. It should be noted that Triffin advocated the creation of European liquidity without yet considering the suppression of the dollar and gold, that is to say the pillars of the gold exchange standard.

Triffin's advocacy for a European reserve fund was reiterated in 1955 when the European Monetary Agreement was signed in order to replace the EPU in time. This agreement provided for a fund in order to lend in the short run to weaker European countries. These loans enabled them to achieve the return to currencies convertibility. According to Triffin, this fund was not enough ambitious and he "advocated the transformation of the EPU into a European Clearing House that would also pool about 20% of the total gold and foreign exchange reserves held by European central banks" (Maes and Erik Buyst, 2004, p. 433). Despite Triffin's warnings, in December 1958, the EPU was cleared and all European countries returned to full currencies convertibility. At this moment, Triffin tried to highlight that the risk of returning to full currencies convertibility without more cooperation between countries to ensure the operation of the international monetary system will be a blind-alley. This analysis was exposed in his 1960 *Gold and the Dollar crisis*.

4.4.2 International liquidity: the dilemma and the remedy

As reminded by Bordo (1991, p. 61), the IMF questioned the level of international liquidity to meet countries' need at a time when world trade was increasing. In a 1958 report, the IMF recommended the increase in members' quotas to face the return to currencies convertibility in an expanding world. In his 1960 book, Triffin tackled the same issue asserting that the whole international monetary system was not adequate to the growing needs of international liquidity. Indeed, making his diagnosis on the evolution of the international monetary system, Triffin forecasted that if the US corrected its persistent balance of payments deficit³², the gold production at 35\$ an ounce would not be sufficient to meet the growth of the needs of international reserves and lead to a deflationary bias. On the other hand, if the US kept running deficits, its foreign liabilities – dollars balances held by foreign countries – would exceed by far the American ability to convert these assets

³² We have to be more precise when we use the term "persistent balance of payments deficit". Indeed, until the early 1970s, the US ran a current account surplus with the world. When Charles de Gaulle's Finance Minister, Valéry Giscard d'Estaing, spoke of the US "exorbitant privilege" in the 1960s, he referred to the ability for the US to borrow on short term easily and at low cost to lend on long term to the rest of the world. In other words, "the source of the dollars balances accumulated abroad was net capital outflows, nor current account deficits" (Richard Portes, 2012, p. 196).

in gold on demand and resulting in the suspension of the gold exchange standard by the US.

The most fundamental deficiency of the present system, and the main danger to its future stability, lies on the fact that it leaves the satisfactory development of world monetary liquidity primarily dependent upon an admittedly insufficient supply of new gold and an admittedly dangerous and haphazard expansion in the short-term indebtedness of the key currencies countries. (Triffin, 1960, p. 100)

This diagnosis was at the core of Triffin's analysis when he pointed out the dangerous state and prospects of international liquidity: higher will be the growth of world trade, the more international reserves countries will need (Triffin, 1960, p. 49). According to Triffin (1960, p. 61), since the end of the 1940s, the American gold reserves decreased from \$24.6 billion in 1949 to \$20.6 billion in 1958. At the same time, dollar balances held by foreign countries for official and private transactions shoot up from \$6.4 billion in 1949 to \$15.6 billion in 1958. The haphazardly development of this structure of international reserves threatened all of the international monetary and financial architecture, which would lead to the collapse of the gold exchange standard in a case of a confidence crisis. Triffin explicitly drew the parallel between 1931 and a probable demise of the Bretton Woods system:

This [the run on key currencies and flight to gold] happened to the United Kingdom in 1931. The collapse was then brought about by large shifts of sterling balances into gold and dollars, leading to the devaluation of sterling. (Triffin, 1960, p. 67)

Triffin put to the light the inconsistency of the gold exchange standard. To some extent, the threat of a crisis confidence in dollars denominated assets holdings increased the instability of all the international reserve system³³.

This diagnosis was not only an alarming observation of the actual working of the Bretton Woods system and its prospects, but also an acknowledgment of failure of the regional monetary integration. Indeed, *Gold and the Dollar Crisis* has to be read in a historical

³³ In his 1957 *Europe and the Money Muddle*, Triffin already forecast the formulation of the dilemma: "The enormous improvement of foreign countries' reserves which has taken place in recent years has been primarily the result of vast redistribution of net reserves from the United States to the rest of the world (...) it is evident that such a movement could not continue indefinitely without eventually undermining confidence in the dollar itself" (Triffin, 1957, pp. 296-7)

perspective, that is to say the abandonment of the EPU when European countries returned to currency convertibility. As clearly summarized by Maes and Buyst (2004, p. 433):

It is very remarkable that, in 1955-1957, the six “Schuman” countries made two very different choices: a regional one for the integration of goods markets, with the Rome Treaty, and a world wide one for monetary integration, with complete convertibility in the framework of the Bretton Woods system.

To get out of the dilemma, Triffin strengthens his former proposals to reform the international monetary system.

The first level would be the development of regional monetary integration, on the European example. In that scale, a regional central bank would offset balances between countries, centralize reserves and grant credits to deficit countries. Actually, Triffin iterated the same propositions as before:

The participating countries would establish jointly a Clearing House centralizing all payments among their separate central banks. These payments would be effected through corresponding debits and credits to the account maintained by each central bank with the Clearing House. (Triffin, 1960, p. 124)

The resources of the clearing would be made up of gold and convertible foreign currencies, in order to maintain the convertibility of participating countries' accounts. As highlighted by Triffin, this reform proposal for European countries “would be regional, rather than world-wide in scope, (...), and could probably negotiated and implemented more easily, more rapidly and more fully within such a framework” (1960, p. 125). So Triffin supported regional monetary integration, on the European example, but for others regional zones like Latin American and African Countries³⁴. However, Triffin's plan suffers from defects, rightly highlighted by Maes (2016), concerning the ins and outs of closer regional monetary integration. Indeed, Triffin did not make a significant distinction between a monetary union and a fixed exchange rates system explaining that in both case, countries have to “subordinate their internal monetary and credit expansion to the maintenance of equilibrium in their balance of payments” (Triffin, 1957, p. 289). In the

³⁴ Triffin's efforts to promote regional trade and payments agreements in Latin American countries, Asia or Africa were important since the 1950s. See Triffin (1966, Chaps. XII and XIII).

light of the recent euro zone crisis, Maes (2016, p. 65) reminded that, under a monetary union with capital flows, disequilibria are not necessarily corrected between countries. Moreover, monetary union in Triffin's view did not imply fiscal federalism. Again, Maes (ibid.) points out "a major weakness of Triffin's analysis".

The second level of reform is an international one and consisted in a reform of the IMF's structure. To cope with the instability of using national currencies as international money, Triffin advocated to replace gold and foreign currencies balances, such as dollar and sterling ones, by gold-guaranteed deposit accounts at the IMF (Triffin; 1960, p. 102). These IMF balances would be gradually the major source of increase of international reserves. In other words, the IMF would control the expansion of world liquidity to countries' needs. As the EPU for European countries, the IMF would be able to clear balances between countries and propose credits from the net surplus to the net deficits countries (Triffin, 1960, p. 115).

Triffin saw the new IMF as a central bank of the national central banks, whose objective would be to regulate disequilibrium between regional monetary zones. Gold would remain an international reserve but the IMF would create a new international money, consisting in bank deposits. In the end, the IMF would act a clearing house, centralizing countries' reserves. It has never been mentioned that this proposal was already developed by Triffin in the early 1950s, especially in a OEEC memorandum, released on 8 August 1952 and entitled *Major Proposals for E.P.U. and I.M.F. revision*³⁵. In parallel to a reform of the EPU, Triffin advocated yet a reform of the IMF to establish a mechanism that enable countries to draw on the IMF to settle any balance with another member country:

Emphasis in Fund transactions should shift from individual salvage operations to triangular or multilateral operations designed to maintain a multilateral framework for monetary settlements. (...) the Fund should give maximum attention and automaticity to the mobilization of bilateral earnings necessary to cover bilateral deficits in other directions. (RTPY, Triffin, 1952, p. 13)

³⁵ RTPY, box 19, "EPU revision 1952", *Draft Outline of Major Proposals for E.P.U. and I.M.F. Revision*, August 8, 1952, N° 00005.

Far before the dollar glut, Triffin attempted to “reintroduce in the I.M.F. operations some essential features of the Keynes Clearing Union Plan” (RTPY, Triffin, 1952, p. 15). Nevertheless, as reminded in his 1990 interview (Ferrant and Sloover, 2010, pp. 48-49), Triffin considered the creation of a supranational central bank as a pious hope but regional central banks, on the EPU model, could be feasible. In the end, the management of the new international monetary system would be decentralized, regional monetary zones acting under the leadership of the IMF.

4.5 Conclusion

In his 1960 *Gold and the Dollar Crisis*, Triffin warned the IMF and the leading countries that the Bretton Woods system was not sustainable because the huge accumulation of foreign dollar balances to meet international liquidity needs made the system dynamically unstable. According to de Larosière (1991, p. 137), “Robert Triffin was the first to show how persistent US balance of payments deficits and the accumulation of dollars would ineluctably led to an embargo on gold and devaluation of the dollar”. Despite some marginal arrangements to relieve pressure on the Bretton system from 1960 – the Gold Pool in 1961 and the creation of the Special Drawing Rights as a new form of international liquidity in 1968 – the system collapsed in 1971.

In this chapter, we focused on the origins of the formulation of the Triffin dilemma. We supported the idea that understanding the *Gold and the Dollar Crisis* analysis calls for a study of Triffin’s involvement in European monetary integration. Firmly convinced that his 1947 plan for a European clearing mechanism was the solution to resurge European trade and reduce permanently the demand for dollars from European countries, Triffin began to see regional monetary integration as a solution to the defects of the Bretton Woods system. Throughout the 1950s, Triffin was the instigator of enlargement and deepening of the clearing mechanism to other regional currency areas and to the IMF. His proposals to create other forms of liquidity than the dollar and gold shows his commitment to improving the use and provision of international liquidity. Fearing the unilateral return to full currencies convertibility under the Bretton Woods framework, Triffin never stopped to promote deeper European monetary integration and cooperation as complementary to a

reform of the international monetary system. Guided by the EPU achievements, Triffin took awareness of the inability of the gold exchange standard to provide both sufficient international liquidity and stability in the making of external payments. From the early 1950s, gradually, Triffin was convinced that regional monetary integration was the solution to return to full currencies convertibility, and in that sense, we agree with Maes (2016, pp. 83-4). However, Triffin rapidly considered that the decentralization of monetary cooperation between regional monetary zones were the cornerstone of a new international monetary system in which national currencies should have to be replaced by a new form of liquidity, created by bodies, such as the EPU and the IMF.

As one of the EPU architects, Triffin was influential during the 1950s even if his thorough proposition for regional monetary integration was not followed. Very humble, Triffin reminded that his contribution to international monetary analysis was simple: “(...) my only originality, as an economist, is to have constantly stressed that “bon sens” [reason] is often the opposite of “sens commun” [common sense]” (Ferrant and Sloover, 2010, p. 67).

Annexe 5 : Débats anglo-américains (1943) en vue de la conférence de Bretton Woods (1944)

Les négociations et les débats qui ont abouti à la conférence de Bretton Woods de juillet 1944 reflètent la vision commune que partageaient les pays participants, les États-Unis et le Royaume-Uni en tête. Les architectes de Bretton Woods, Harry Dexter White et John Maynard Keynes, souhaitaient pallier aux défauts du système monétaire de l'entre-deux-guerres, dont le biais déflationniste avait été clairement identifié, afin de promouvoir la paix. Keynes et White s'accordaient sur les principes, promouvant un système de paiements multilatéral, des taux de change fixes et le plein emploi. Cependant, la place des deux pays dans l'économie mondiale ainsi que les divergences d'intérêts ont donné lieu à un débat houleux entre les deux délégations. En effet, au début des années 1940, les États-Unis apparaissent comme le pays le plus riche et le plus puissant du monde, ce qui fera de lui le principal pays créditeur après la guerre. Au contraire, les ressources économiques ainsi que le pouvoir britannique ont été durement impactés par le conflit mondial ; la majeure partie des avoirs extérieurs ont été utilisés pour financer l'effort de guerre et d'importants emprunts – les fameuses balances sterling – ont été contractés, d'abord aux pays du Commonwealth, et ensuite aux États-Unis. La question du bilatéralisme, directement liée au système de préférence impériale négocié entre la Grande-Bretagne et le Commonwealth lors de la conférence d'Ottawa en 1931 est au cœur des préoccupations de l'administration Roosevelt qui souhaitait réduire les discriminations aux échanges ainsi que le contrôle des changes. Le promotion d'un système de paiement multilatéral fondé sur un retour à la convertibilité des monnaies constitue la solution idéale pour les États-Unis. Davantage marqués par la déflation des années 1930, les Britanniques sont, quant à eux, soucieux de pouvoir mener librement des politiques nationales de plein-emploi sans être contraints par l'équilibre de la balance des paiements. De plus, ils souhaitent préserver le Commonwealth, l'assistance pour la reconstruction après la guerre et mettre en place une procédure afin de soulager le pays lors des remboursements des balances sterling (sur la position britannique, voir Gardner, 1969, chapitres 1 et 2). Le cadre du débat à Bretton Woods a été posé par les négociations sur le financement de l'effort de guerre britannique, ce qui a donné lieu à la Charte de l'Atlantique en août 1941 puis à l'Accord d'Aide Mutuel de février 1942, dans

lequel les Britanniques acceptent la restauration d'un système de paiement multilatéral avec, à terme, le retour à la convertibilité du sterling. En échange, les États-Unis s'engagent à maintenir le Commonwealth, à accorder un prêt-bail (*Lend-Lease program*) à des conditions avantageuses et à supporter l'effort de reconstruction après la guerre (voir Gardner, 1969, chapitres 3 et 4). À l'occasion de ces négociations diplomatiques, les Trésors britanniques et américains imposent les termes du débat, en constituant deux équipes dès 1941 ; l'une menée par White, et l'autre par Keynes. Au printemps 1943, les versions finales des deux plans sont publiées¹. Après plus d'un an de débat entre les deux délégations, un compromis est trouvé et résumé dans le « *Joint Statement by Experts on the Establishment of an International Monetary Fund* », publié le 21 avril 1944, document commun qui servira de base à la conférence de Bretton Woods. Dans cette annexe, nous nous intéressons aux premières versions des plans Keynes et White² ainsi qu'aux discussions qu'elles ont suscitées, notamment à propos de la clause de la monnaie rare.

La première version du plan White – *A preliminary Draft Proposal for a United Nations Stabilization Fund and a Bank for Reconstruction and Development of the United and Associated Nations* (avril 1942) – ne circule initialement qu'au sein du Trésor américain. Dans l'introduction, White rappelle les enjeux de la création d'institutions internationales : « to prevent disruption of foreign exchanges and the collapse of monetary and credit systems ; to assure the restoration of foreign trade ; and to supply the huge volume of capital that will be needed virtually throughout the world for reconstruction, for relief, and for economic recovery » (in Horsefield, 1969, Vol. 3, p. 37). Pour atteindre ces objectifs, il propose la création d'un Fonds de Stabilisation International, l'*International Stabilization Fund* (ISF), constitué d'or et de devises déposés par les pays membres et qui seraient mis à leur disposition pour financer des déficits temporaires de leur balance des paiements. Entre avril 1942 et le printemps 1943, le plan White a reçu beaucoup de modifications, suite notamment aux critiques de ses collègues de la *Division of Monetary Research* du Trésor, du *State Department* ainsi que de la Réserve Fédérale de Washington. Parmi ces modifications, l'introduction d'une unité de compte internationale, *unitas*, dans laquelle seraient exprimées

¹ Concernant les origines du plan White, voir Mikesell (1994, pp. 5-13). Pour Keynes, voir Dostaler (2009, pp. 426-8).

² Nous avons utilisé les versions préliminaires des plans White et Keynes, datant respectivement d'avril et de février 1942, ainsi que la première version officielle des deux plans, publiée en avril 1943, reproduit dans Horsefield (1969, Vol. 3).

les dépôts en monnaies nationales à l'ISF (proposé en décembre 1942) ; ainsi que la clause de la monnaie rare (introduite au début de l'année 1943). Keynes, quant à lui, propose un plan radicalement différent, fondé sur la création d'une banque supranationale et d'une monnaie, le bancor, conçue comme unité de compte et moyen de paiement dans l'espace international. Dans la première version de son plan – *Proposals for an International Currency (or Clearing) Union* (février 1942) – Keynes ne laisse planer aucun doute sur ses ambitions pour le système monétaire international de l'après-guerre : « The proposal is to establish a Currency Union, here designated an International Clearing Union, based on international bank-money, called (let us say) bancor, fixed (but not unalterably) in terms of gold and accepted as the equivalent of gold by the British Commonwealth and the United States and all members of the Union for the purpose of settling international balances. The Central Banks of all member-States (and also of non-members) would keep accounts with the International Clearing Union through which they would be entitled to settle their exchange balances with one another at their par value as defined in terms of bancor » (in Horsefield, 1969, Vol. 3, p. 3). Le plan Keynes peut être résumé en deux points. Tout d'abord, il assure la multilatéralisation des règlements via la création d'une Union de Compensation (UC). En effet, tout pays accepterait le remboursement de ses créances sous forme de virements en bancors à l'UC, sans limites. Deuxièmement, le poids de l'ajustement serait réparti entre les pays excédentaires et déficitaires. En effet, les pays excédentaires seraient forcés de financer leurs excédents nets par l'accumulation de créances en bancors, inconvertibles en or ou en devises quelconques. Ces créances pourraient servir au financement de déficits ultérieurs vis-à-vis de l'UC. Pour éviter le dérapage inflationniste et l'accumulation des déficits, chaque pays se verrait attribuer un quota définissant le montant maximum du déficit qu'il pourrait avoir vis-à-vis de l'UC. La grande innovation du plan Keynes a été de proposer une monnaie supranationale déconnectée de l'or assurant un règlement des déficits et un paiement des excédents, dans le cadre d'une compensation multilatérale, grâce à l'UC. Peu de modifications ont été apportées entre la première version de plan Keynes et celle qui sera rendue publique au printemps 1943.

En février 1943, le plan White est officiellement transmis à l'Angleterre, après avoir été remanié sept fois depuis avril 1942 (Gilles Dostaler, 2009, p. 430). En mars 1943, Keynes rédige une analyse comparée des deux plans, soulignant que « from a practical point

of view the most important questions under the Stabilization Fund are the nature of the provisions for exchange control, the adequacy of the quotas, and the workability of the proposed solution for dealing with scarce currencies » (Collected Writings, XXV, 1980, p. 226). Outre les divergences institutionnelles entre l'ISF – qui n'est qu'un fonds constitué de devises et d'or – et l'UC – qui constitue une banque centrale internationale – Keynes semble être quelque peu surpris par une disposition du plan américain, qui deviendra la clause de la monnaie rare (article VII du FMI). Selon cette disposition, s'il existe une demande structurellement excédentaire pour une monnaie particulière, la rendant rare dans les ressources de l'ISF, l'institution pourra accorder aux pays membres le droit de prendre des mesures visant à réduire leur demande pour cette dernière (voir Horsefield, Vol.1, pp. 44-5). Cette disposition reste obscure et déstabilise Keynes. Dans une lettre à D.D. Braham, célèbre chroniqueur au *Times*, datée du 12 avril 1943, Keynes souligne : « For under the American plan clearly a currency can become scarce, and some answer must be produced to the question what one then does about it. I am a little inclined to share (...) that only the author of the scheme has perceived that passage, and that it has slipped through others concerned without their grasping its significance. If it really is a proposal to limit and ration American exports, it is, of course, of the highest significance » (Collected Writings, XXV, 1980, pp. 238-9). Keynes se demande si l'implication d'une telle clause avait bien été saisie par la délégation américaine, ainsi que par le *State Department*. Il est intéressant de noter le décalage entre la volonté affichée par White, et de façon générale par les autorités américaines, de promouvoir la liberté du commerce et la fin de toute entrave aux mouvements de biens et de proposer une clause qui permet aux pays structurellement déficitaires vis-à-vis des États-Unis de le discriminer (ce point avait été soulevé par Joan Robinson, 1943, p. 167). Au-delà de l'embarras de la délégation américaine sur cette question au début de l'année 1943, White balaye le problème en soulignant que l'ISF n'aura jamais besoin d'activer la clause de la monnaie rare. Cependant, comme le souligne Mikesell (1994, p. 16), White n'a jamais expliqué comment éviter cette situation dans laquelle l'excédent structurel d'un pays engendrerait la rareté de sa monnaie ; pensant sans doute que l'ISF n'entrerait en opération qu'une fois que les pays auraient restauré la convertibilité de leurs monnaies. Dans le plan Keynes, le problème de la monnaie rare disparaît puisque c'est le bancor qui est utilisé comme monnaie internationale et tout excédent structurel d'un pays donne lieu à un gonflement de son compte créditeur en bancors.

Vu l'audace du projet de Keynes, il ne pouvait être accepté par les Américains ; du fait de l'absence de visibilité sur le montant de bancors que devrait accorder les États-Unis aux autres pays membres et du principe même de la compensation multilatérale, le plan Keynes ne pouvait aboutir. Les 22 et 23 juin 1943, les délégations menées par White et Keynes se sont rencontrées afin d'établir un calendrier des négociations. Keynes a compris assez rapidement que son plan ne pourrait être retenu et qu'il fallait donc envisager de modifier le plan White dans le sens des intérêts britanniques (Mikesell, 1994, p. 16). Dans cette perspective, l'acceptation de la clause de la monnaie rare par les britanniques devient une condition des négociations. Dans une lettre à Keynes datée du 2 mars 1943, Harrod souligne l'avantage que le plan américain donne au Royaume-Uni : « The cardinal point is that the Americans offer us in this what we could never asked of them in the negotiations after signing Article VII [clause de la monnaie rare], namely we (and other countries) should be allowed to discriminate against American goods if dollars are running short » (Collected Writings, XXV, 1980, p. 227). Selon Harrod, cette clause assure que les déficits cumulés de la balance des paiements pourront être évités. Malgré l'incrédulité de Keynes quant au bien-fondé de cette clause, l'idée était de lier le risque de raréfaction d'une monnaie et le montant des quotas du plan américain. En effet, dans le plan White de 1943, le montant total des quotas atteignait 5 milliards de dollars contre 38 milliards dans le plan Keynes. D'un point de vue tactique, la délégation britannique avait tout intérêt à souligner que la clause de la monnaie rare n'aurait pas à être activée si le montant des quotas prévu par le plan américain était accru. Comme le souligne Harrod à Keynes dans une lettre du 6 mars 1943, « I lay particular stress on the importance of thinking limited credit quotas and rationing as two aspects of one proposal » (Collected Writings, XXV, 1980, p. 232).

Entre le 16 septembre et le 9 octobre 1943, neuf réunions se sont tenues entre les deux délégations à Washington. À ce moment des négociations, « the British had abandoned any hope of obtaining an agreement based on the ICU and sought to secure changes in the White plan that they believed were essential for Britain's welfare and for acceptance by the British Parliament » (Mikesell, 1994, pp. 24-5). Au-delà des oppositions de principe, il fallait se mettre d'accord sur des points tels que les moyens de promouvoir le commerce international, le maintien de la stabilité des changes, la réduction de la durée et du poids des déséquilibres de la balance des paiements des pays membres. L'un des

premiers sujets abordés, particulièrement cher à Keynes, était la monétisation de l'unitas. Plus qu'une unité de compte, Keynes considérait qu'il fallait qu'elle devienne un moyen de paiement entre pays : chaque pays aurait son compte à l'ISF libellé en unitas, qu'il pourrait mobiliser pour régler les soldes déficitaires avec n'importe lequel des pays membres. White, convaincu du fait que la monnaie internationale n'était qu'un artifice, a maintenu sa position : l'unitas a été finalement retiré du plan. Cependant, la suppression de la monnaie supranationale n'a pas résolu le problème de la compensation multilatérale. Malgré des tentatives de la part de la délégation britannique de pousser dans ce sens, White s'est fermement opposé à ce principe, considérant qu'un système de paiement multilatéral devait reposer sur la convertibilité des monnaies. Enfin, concernant la période de transition, le plan White ne prévoyait aucune disposition particulière pour assurer le retour à un système de paiement multilatéral. Au contraire, le plan Keynes tenait compte de cette phase de transition, d'une durée indéterminée, au cours de laquelle des ressources financières hors CU pourraient être mobilisées pour répondre aux besoins financiers de la reconstruction. Sans passer en revue les quatorze points discutés lors de ces rencontres, il convient de noter que les différences entre les deux plans révèlent des divergences sur les moyens d'atteindre un même but : le retour à un système de paiement multilatéral. Comme le résume Horsefield (1969, Vol. 1, p. 57) : « The significance of these points varied quite widely, a few reflecting a fundamental cleavage of outlook in the two countries, but more arising only from opposing ideas about the appropriate technical methods of achieving agreed aims ». Malgré la longueur des débats, étalés sur plus d'un mois, une partie des questions soulevées n'ont pas été résolues, notamment la taille des quotas³, les conditions d'accès aux ressources de l'ISF ou encore, les dispositions de la clause de la monnaie rare. Ce n'est qu'après les négociations de septembre-octobre 1943 que la délégation américaine sera claire sur la problématique de la monnaie rare (Horsefield, 1969, Vol. 1, p. 59) : si l'ISF déclare une monnaie rare, les autres pays membres pourront ériger des barrières commerciales temporaires afin de réduire le déséquilibre de la balance des paiements qui est à l'origine de la raréfaction de la monnaie en question.

Notons que les origines de la clause de la monnaie rare restent mystérieuses. Elle n'apparaît que début 1943 dans une version révisée du plan White mais sans qu'il soit fait

³ Le montant total des quotas du FMI sera finalement de 8,8 milliards de dollars.

état des conditions dans lesquelles elle a été pensée. Comme le souligne Horsefield (1969, Vol. 1, p. 45), cette clause « was not mentioned at any contemporary meeting of which the record has been preserved. Specifically, it was not among the points made by White in an expose of the draft dated December 16, 1942, at a meeting of the official committee held by Secretary Morgenthau on the previous day ». Rétrospectivement, l'Article VII du FMI s'analyse comme une concession de la délégation américaine au Royaume-Uni pour faire accepter aux Britanniques les autres termes du plan White.

Appendix 6: The European Payments Union

EPU Quota (in million US\$)

Sterling area	1060	Norway	200
France	520	Denmark	195
West Germany	500	Austria	70
Belgium Luxembourg	360	Portugal	70
Netherlands	355	Turkey	50
Sweden	260	Greece	45
Switzerland	250	Iceland	15
Italy	205		

Each country received a quota equal to 15% of its total merchandise trade (visible and invisible transactions) with EPU members' countries in 1949. For each country, its quota limits the rights to borrow or the obligations to lend. The settlement of balances – in gold or dollars – is as follows.

Borrowings rights and lending obligations

% Of Quota	DEBTORS		CREDITORS	
	Credit	Gold Payment	Credit	Gold Payment
20	20	-	20	-
20	16	4	10	10
20	12	8	10	10
20	8	12	10	10
20	4	16	10	10
100	60	40	60	40

To illustrate the mechanism, let us take the example of West Germany, with a quota of \$500 million, which runs a deficit *vis-à-vis* the EPU of \$100 million during the first period. Since its deficit is equal to 20% of its quota, it is entirely financed by credit. Let us assume now that during the next period, West Germany accumulates a deficit amounting \$200 million, that is to say 40% of its quota. In that case, it can borrow a further sum of

\$80 million ($\frac{16}{20}$ x \$100 million) and pay to the EPU \$20 million ($\frac{4}{20}$ x \$100 million) in gold or dollars. The more the country runs a deficit with the EPU, the more in proportion it has to pay its debt in gold/dollars. For creditors countries, the mechanism is the same: the more a European country runs a current account surplus with the EPU, the less in proportion it is paid in gold/dollars.

Conclusion générale

La théorie monétaire internationale a connu de profondes mutations entre 1919 et 1960. Comme le souligne Christian Montet dans *La nouvelle histoire de la pensée économique* (2000, p. 326), « l'évolution de la pensée en termes de théorie pure révèle une assez grande autonomie à l'égard des faits et une certaine convergence vers l'analyse en termes d'équilibre général ». Tel n'est pas le cas pour la théorie monétaire internationale qui apparaît clairement influencée par les faits économiques et politiques. Dans l'entre-deux-guerres, les débats théoriques se focalisent sur le mécanisme d'ajustement de la balance des paiements à une période où l'instabilité des changes, les mouvements de capitaux spéculatifs et les dévaluations compétitives minent les relations économiques et monétaires mondiales. Les thèses classiques sont de plus en plus critiquées et la révolution keynésienne a clairement œuvré pour le développement de nouvelles analyses, centrées sur la persistance des déséquilibres liées aux rigidités et sur le rôle des politiques de plein emploi (Bernard Guillochon, 2000, p. 472). L'inefficacité des politiques monétaires orthodoxes et l'évolution des faits ont ébranlé le schéma classique du SMI. Dans notre thèse, nous considérons que Hawtrey, White et Triffin sont des auteurs clés dans ce changement de paradigme, permettant de comprendre les origines des réformes monétaires internationales entre 1919 et 1960. En discutant les différents défauts du SMI et les moyens d'y remédier afin de réconcilier stabilité interne et externe, les analyses de Hawtrey, White et Triffin sont d'une étonnante actualité. Résumons leurs apports sur ces grandes questions.

(1) La place et le rôle des monnaies internationales

La période étudiée dans cette thèse est marquée par la chute de la livre et la naissance du dollar comme monnaie internationale, reflétant le changement de centre de gravité de l'économie mondiale. La promotion de l'étalon de change-or en 1922 par Hawtrey puis par White, d'abord en 1934, puis en 1944 à Bretton Woods, institutionnalise la monnaie nationale comme monnaie internationale. Comme unité de compte des contrats dans les échanges économiques internationaux et moyen d'échange, notamment pour les

interventions des banques centrales sur le marché des changes, la monnaie internationale était analysée comme un moyen de compléter l'étalon-or dans la fourniture de liquidités internationales. Même si la livre ou le dollar étaient utilisés comme monnaie internationale avant 1914, les réformes successives du SMI, et donc les États, ont donné à ces monnaies le caractère d'institution. Hawtrey et White œuvrent dans ce sens en considérant que le statut des devises clés – livre et dollar – est la conséquence de la taille des économies britanniques et américaines et de leur poids dans le commerce et la finance international. Plutôt que de modifier cet état de fait, ils fondent leurs propositions de réforme sur son institutionnalisation. Même si Triffin (1947a) discute des conditions dans lesquelles la monnaie internationale doit pourvoir aux besoins des pays périphériques, il prend ses distances à partir du milieu des années 1950 avec cet argument. Il a été le premier économiste à montrer qu'un SMI utilisant une monnaie nationale était fondamentalement instable car dépendant de la conjoncture et la politique économique du pays émetteur. En plus de produire des ajustements asymétriques de la balance des paiements, un tel système pouvait être ébranlé si les autres pays perdaient confiance dans la détention d'une telle monnaie. En proposant une union de compensation, d'abord au niveau régional (1947) puis au niveau mondial (1960), Triffin propose de réduire l'asymétrie. Certes la problématique de confiance n'était pas étrangère à Hawtrey et White mais ces derniers s'inquiétaient davantage des risques déflationnistes des années 1920 et 1930.

(2) Le choix du régime de change

La défense des taux de changes fixes constitue la pierre angulaire des propositions de réformes de Hawtrey, White et Triffin. L'argumentation est classique : la fixité des changes limite l'incertitude dont les agents économiques souffrent dans leurs relations internationales et favorisent donc le commerce international et les investissements à l'étranger. L'instabilité des changes des années 1920 puis des années 1930 conforte la position des auteurs dans leur condamnation des changes flexibles. L'effondrement du système de Bretton Woods le 15 août 1971, suite à la déclaration de Nixon de suspendre la convertibilité-or du dollar, a non seulement été un évènement retentissant pour l'époque¹

¹ Techniquement, la suspension du système de Bretton Woods a été décidée par la République Fédérale d'Allemagne. Face à une augmentation importante de ses réserves officielles en dollars, due à une balance des paiements excédentaire, les taux de croissance de la masse monétaire et d'inflation allemandes avaient bondi,

mais a marqué une victoire idéologique pour les monétaristes, dont notamment Milton Friedman, lesquels avaient défendu le système de changes flottants. Dans son plaidoyer pour les changes flexibles (1953), Friedman avait déjà condamné le système de Bretton Woods de changes fixes mais ajustables qui obligeaient les autorités monétaires à intervenir constamment sur le marché des changes pour faire respecter la parité officielle. Un tel engagement était difficile à tenir en période de forte spéculation. De plus, un tel système de change contraignait les politiques économiques nationales. Le régime de changes flexibles était présenté par Friedman comme plus flexible, assurant un retour plus rapide à l'équilibre extérieur. En effet, dans un régime de changes flexibles, les variations des taux de change reflètent les variations des variables économiques nationales comme la productivité, le niveau des prix des biens ou encore celui des salaires (Friedman, 1953, p. 173). C'est donc l'instabilité de l'économie nationale qui cause la fluctuation du change. Ainsi, selon Friedman, un régime de change flottants n'induit pas nécessairement une instabilité des changes. Pour étayer cette affirmation, Friedman souligne le rôle stabilisateur des actions spéculatives qui empêchent une déviation du taux de change de marché vis-à-vis du taux de change d'équilibre ; ce dernier étant déterminé par les fondamentaux de l'économie nationale. Dans le cas où le taux de change dévierait de l'équilibre, les spéculateurs, en anticipant ce décalage et le retour à l'équilibre, interviendraient sur le marché des changes en espérant faire des gains. Leurs actions en tant que telles produiraient une force stabilisatrice, accélérant le retour du taux de change à l'équilibre. De plus, dans un tel régime, la variable d'ajustement ne serait plus le prix des biens ou du travail mais celui des devises, rendant ainsi à la politique monétaire une totale autonomie. Friedman a résumé cette idée avec cette fameuse métaphore : « Pourquoi ne pas laisser le chien remuer la queue, au lieu de laisser la queue remuer le chien ? » (1969, p. 274). Nous n'avons pas trouvé de preuves du positionnement de Hawtrey sur la question du rôle des spéculateurs et de leurs actions stabilisatrices en régime de changes flottants. Sa préférence à l'égard des changes fixes était directement liée au problème britannique de restauration de la livre comme monnaie internationale dans les années 1920. Par contre, White considérait que la spéculation pouvait être contenue par les autorités monétaires. En effet, lorsqu'il a proposé

passant respectivement de 6,4% à 12% au cours de la seule année 1971, et de 1,8% en 1969 à 5,3% en 1971, selon Allan H. Meltzer (1991, p. 73). Très sensible en matière d'inflation, le 5 mai 1971, la banque centrale allemande a suspendu les opérations officielles sur son marché des changes et a laissé fluctuer le mark.

un régime de changes fixes mais ajustables dans son rapport de 1934, il expliquait qu'en cas de tensions sur le marché des changes, liées aux mouvements spéculatifs, une modification des points d'or pouvait suffire à décourager les spéculateurs (White, 1934, p. 338). Sur ce point, Friedman a considéré qu'un tel système favorisait justement la spéculation sur les monnaies, forçant les autorités monétaires à en modifier la parité et engendrant des gains pour les spéculateurs. De son côté, Triffin critique la thèse de Friedman selon laquelle la spéculation est stabilisatrice et empêcherait l'apparition de déséquilibres extérieurs structurels. Marqué par l'instabilité des changes de l'entre-deux-guerres, Triffin écrit :

Il n'existe certainement aucun fondement empirique à la thèse suivant laquelle les grands mouvements de fluctuation des changes et de spéculation des années 1920 ont aidé à restaurer où que ce soit, des taux de change en équilibre, ou bien au moment de la réalisation de l'expérience, ou bien lorsque la stabilisation de la monnaie *de facto* ou *de jure* y eut enfin mis un terme. (Triffin, 1962, p. 94).

Selon Triffin, il n'y a pas lieu de croire que la résorption des déséquilibres temporaires serait mieux accomplie par les spéculateurs que par les autorités monétaires.

(3) La fourniture de liquidités internationales

La question de la fourniture de la liquidité internationale peut poser problème dans un régime de changes fixes où les autorités monétaires s'engagent à intervenir de façon permanente pour stabiliser les changes. À cet égard, le retour à l'étalon-or posait un problème majeur clairement identifié par Hawtrey (1919, 1922) : l'insuffisance du stock d'or mondial pour assurer la reprise économique. La question de l'insuffisance des liquidités internationales pour assurer la reprise mondiale et éviter la déflation a été au cœur de la réforme monétaire proposée à la Conférence de Gênes en 1922 mais aussi à Bretton Woods en 1944. Dans les deux cas, il s'agissait d'établir un système monétaire international pouvant répondre aux besoins de réserves internationales. L'accent était donc mis sur le financement des déficits temporaires de la balance des paiements. Hawtrey, White et Triffin craignaient tous les trois la déflation mondiale. L'étalon de change-or a constitué un formidable expédient en ce sens. Cependant, seul Triffin a souligné la potentielle dérive ainsi que le risque d'inflation mondiale produit par un tel système monétaire, même s'il était persuadé que le pays émetteur de la devise clé ne laisserait pas une telle situation dégénérer.

(4) Le mécanisme d'ajustement extérieur

Le mécanisme d'ajustement de la balance des paiements en régime d'étalon-or (1880-1914) a toujours fonctionné de façon asymétrique, les pays du centre et les pays périphériques n'étant pas contraints de la même manière par la nécessité d'ajuster la conjoncture nationale à l'état de leur balance des paiements. Hawtrey a clairement souligné que les pays périphériques, qui ne sont pas centres financiers, ne peuvent pas utiliser la variation du taux d'escompte de la banque centrale pour stabiliser les changes. En conséquence, « such a country must therefore hold a relatively large gold reserve or be exposed to the danger of finding its reserve exhausted and its currency depreciated in an emergency » (1919a, p. 118). White et Triffin ont eux-aussi mis en avant le caractère asymétrique de l'ajustement pour les pays périphériques, notamment d'Amérique latine. Par conséquent, l'établissement de l'étalon de change-or ne doit pas être analysé comme une tentative de rendre les ajustements extérieurs plus symétriques, bien au contraire. Même s'il est de la responsabilité du pays émetteur de la devise clé convertible en or de réguler l'offre de liquidités internationales, l'ajustement extérieur incombe aux pays en déficit. Cependant, l'étalon de change-or assure aux pays déficitaires des ressources financières pour intervenir sur le marché des changes sans que ne soit menée, nécessairement, une politique déflationniste. En promouvant l'étalon de change-or, Hawtrey et White reconnaissent un privilège exorbitant aux pays centres mais considèrent que la régulation du SMI était de leur responsabilité. Dans ses travaux sur l'intégration monétaire régionale, Triffin a davantage tenté d'instaurer une symétrie des ajustements entre zone monétaires, en libérant les relations monétaires internationales du système d'étalon de change-or.

(5) La coopération monétaire

Alors que la question de la coopération entre banques centrales ne constituait pas un enjeu des relations internationales avant 1914 (Eichengreen, 1992), elle a été largement développée par Hawtrey, White et Triffin. Lorsque Hawtrey propose son plan de réforme en 1922, il considère que l'établissement de l'étalon de change-or ne suffit pas à éviter la déflation mondiale. La coopération entre les principales banques centrales est une condition supplémentaire à la stabilisation des relations monétaires internationales. Suite à l'effondrement de l'étalon-or en 1931, il réitéra ses propositions faites en 1922, déplorant le

manque de concertation des années 1920. En proposant la création du prêteur en dernier ressort international (1932), rôle qui selon lui pouvait être joué par la Banque des Règlements Internationaux, Hawtrey institutionnalise davantage la coopération entre banques centrales. Dans le même esprit, White (1934) est convaincu que son plan de « *managed gold standard* » pour les États-Unis ne peut être efficace que s'il est conjointement adopté en Angleterre. Par ailleurs, en tant que leader de la délégation américaine à Bretton Woods, White a souligné la nécessité de mettre sur pied des institutions fortes pour créer un espace où les pays pourraient coopérer et être soutenus en cas de déséquilibre passager. Triffin a été celui qui a poussé la logique de coopération et de surveillance multilatérale le plus loin. En effet, ces propositions d'intégration régionale devaient forcer les pays européens à coopérer. Triffin voyait le *Managing Board* de l'Union Européenne des Paiement comme une structure devant être amenée à évoluer vers une institution disposant d'un réel pouvoir de pression auprès des pays accumulant les déséquilibres.

Dans cette thèse, nous avons considéré que la compréhension du fonctionnement et de l'actualité du SMI requérait selon nous une double démarche, théorique et historique. L'approche théorique permet d'isoler les hypothèses sous-jacentes aux débats monétaires et l'approche historique permet de sortir de la théorie abstraite à caractère général pour les replacer dans la perspective de l'évolution des économies. Cela a été notre démarche pour l'analyse des pensées monétaires de Hawtrey, White et Triffin. Les quatre chapitres de cette thèse ont éclairé les débats et réformes monétaires internationales sur la période 1919-1960, et ont souligné l'influence de ces trois auteurs sur le cours de l'histoire monétaire. L'actualité de la pensée de nos auteurs sur des sujets comme la coopération monétaire internationale ou encore sur la nécessité de s'accorder sur un régime de change a été soulignée. Cependant, comme nous l'avons noté en introduction de cette thèse, Hawtrey, White et Triffin ne forment pas à proprement parler une tradition dans la pensée monétaire. Certes, sur des thèmes comme l'analyse asymétrique du système monétaire international ou encore la coopération entre banques centrales, une filiation évidente entre les trois auteurs émerge. De plus, leurs analyses admettent toutes une référence à une forme de quantitativisme, soulignant la relation entre masse monétaire et niveau des prix. Notons quand même que ces trois auteurs n'adhèrent pas à la version stricte de la théorie quantitative de la monnaie et estiment que la variation de la quantité de monnaie peut avoir

des impacts sur d'autres variables que les prix. Cependant, leurs propositions de réformes du SMI divergent radicalement, entre Hawtrey et White qui proposent l'étalon de change-or et Triffin, une union de compensation régionale puis internationale, dans le sillage de Keynes. Le rejet commun de la tradition ricardienne est malgré tout un marqueur fort de cette filiation. La force des analyses de Hawtrey, White et Triffin repose sur une vision d'ensemble du SMI, qui ne se limite pas seulement à discuter des bienfaits ou non d'un régime de changes fixes.

Cette thèse de doctorat ouvre des pistes de recherches intéressantes ; nous en avons identifié deux principales. La première piste concerne le développement, par les experts du FMI, d'une orthodoxie d'inspiration ricardienne fondée sur l'approche monétaire de la balance des paiements, à une période où les thèses structuralistes (Prebisch, Furtado) émergent. Au cours de cette thèse, et notamment de mon travail d'archives à l'université de Yale, nous avons pris pleinement conscience de l'influence de Prebisch sur Triffin. D'ailleurs, a posteriori, Triffin rappelle que sa critique de la théorie orthodoxe de l'étalon-or et son analyse centre-périphérie qu'il développe dans les années 1940 doit beaucoup aux travaux de Prebisch (Triffin, 1966, p. 141). Alors que Triffin est encore au FMI, Prebisch se voit proposer une offre de conseiller au sein de cette nouvelle organisation internationale. Cependant, le conseil d'administration du FMI refuse sa nomination ; Prebisch se tourne donc vers une nouvelle structure de l'ONU, la Commission économique pour l'Amérique latine et les Caraïbes (CEPAL) dont il deviendra directeur en 1949. Au cours de la même période, Jacques J. Polak rejoint le FMI, d'abord comme Chef de la Division Statistique en 1947 puis Directeur de la Recherche en 1958. En l'espace d'une décennie, un groupe d'économistes mené par Polak, développe un cadre d'analyse théorique connu sous le nom d'approche monétaire de la balance des paiements. Ce modèle attribue les déséquilibres de la balance des paiements à l'excès de création monétaire. Conçu pour les petits pays en économie ouverte en régime de changes fixes, ce modèle vise à déterminer les variations de la quantité de monnaie nécessaire pour restaurer l'équilibre extérieur. Ce modèle, qui a inspiré les politiques d'ajustement structurel du FMI pendant de nombreuses années, est aux antipodes des analyses de Prebisch. Pour ce dernier, le déséquilibre de la balance des paiements des pays périphériques est causé par l'instabilité économique et financière internationale ; ce qui nécessite la mise en œuvre de politiques contra-cycliques, comme

nous l'avons souligné dans le chapitre 4. Cette vision a influencé Triffin. Il nous paraît intéressant de se pencher sur les échanges et débats entre Triffin et ce groupe d'experts du FMI à la fin des années 1940 et dans les années 1950 : quel est la position de Triffin sur le modèle de Polak ? Après la diffusion de ce dernier, quelle est la position de Prebisch et échange-t-il avec Triffin ? Comment sont perçues les approches de Prebisch et de Triffin par les experts du FMI ?

La seconde piste de recherche que nous souhaiterions étayer concerne l'influence de Triffin sur le projet de création d'une zone monétaire régionale en Amérique latine. Pendant que les pays européens tentent de s'organiser pour allouer l'aide du plan Marshall entre 1947 et 1949, les pays d'Amérique latine commencent à réfléchir eux-aussi à un projet d'union monétaire régionale. Cette volonté s'affiche lors du premier sommet de la CEPAL à Santiago du Chili en juin 1948. Nous avons trouvé des documents révélant l'intérêt du FMI pour ces discussions dans les archives de Triffin à l'université de Yale. À partir de 1951, soit un an après la mise en place de l'Union Européenne des Paiements (UEP), Triffin commence à rédiger des mémorandums pour l'OECE sur un projet de compensation multilatérale entre l'EPU et les pays d'Amérique latine. En parallèle, et comme condition de réussite de ce projet, Triffin rédige un document pour le compte de l'ONU où il propose la création d'une union monétaire latine sur l'exemple de l'UEP. Nous n'avons trouvé aucune référence à ces projets dans la littérature existante. Étant donné l'influence de Triffin à l'OECE et à la CEPAL comme conseiller ainsi que ses relations avec Prebisch à la même époque, il est intéressant d'analyser cette tentative de création d'une union latine des paiements, d'autant plus que le FMI mandate ses experts pour discuter de la faisabilité de ce projet. Même si la régionalisation des paiements via une chambre de compensation restera à l'état de projet en Amérique latine, il est intéressant de comprendre pourquoi une telle tentative a échoué. Rappelons que grâce à l'UEP, les pays d'Europe de l'Ouest ont pu envisager une intégration économique plus poussée, consacrée par la création de la Communauté économique européenne (Traité de Rome, 1957). Une étude comparative entre les pays européens et d'Amérique latine au cours des décennies 1940 et 1950 pourrait être éclairante afin de mieux saisir l'importance des propositions d'une union latine des paiements au moment où les pays européens empruntent cette voie d'intégration régionale. Nous avons collecté une masse importante de documents lors de

notre travail d'archives à Yale – documents pour l'instant inexploités – qui serviront pour approfondir ces deux pistes de recherche.

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Résumé

Ma thèse étudie la pensée monétaire ainsi que les travaux de Ralph G. Hawtrey, Harry D. White et Robert Triffin, entre 1919 et 1960. Au cours des débats sur cette période, considérée comme fondatrice pour le système monétaire international, ces trois économistes ont été des personnalités clés qui ont influencé le cours de l'histoire monétaire. Premièrement, ils ont critiqué la théorie de l'étalon-or issue de la tradition ricardienne, en soulignant le caractère non-automatique et asymétrique du mécanisme d'ajustement de la balance des paiements. En s'articulant autour du rejet de cette tradition, les analyses de nos auteurs ont caractérisé les faiblesses liées au fonctionnement du système monétaire international. Deuxièmement, bénéficiant de leurs positions au Trésor américain et britannique, au FMI ou encore à la Fed, ces économistes ont exercé une influence sur les réformes en œuvrant pour une consolidation de la coopération monétaire internationale dans un régime de changes fixes.

Mots Clés

Balance des paiements, Banque centrale, Étalon-or, Hawtrey, Monnaie internationale, Politique monétaire, Système monétaire international, Théorie monétaire, Triffin, White.

Abstract

My PhD dissertation studies Ralph G. Hawtrey's, Harry D. White's and Robert Triffin's monetary thought and works between 1919 and 1960. Actively participating to key institutions which shaped the international monetary system – the British Treasury for Hawtrey, the US Treasury for White and the Fed and the IMF in the case of Triffin – those economists influenced the course of monetary theory and history. They both wrote on the non-automatic and asymmetric nature of the balance of payments adjustment mechanism, and formulated an original critic towards the classical Ricardian gold standard theory. Structured around the rejection of this classical theory, the authors' analysis pointed out the weaknesses of the international monetary system. Since then, all of their reform proposals were grounded on the strengthening of monetary cooperation under a fixed exchange rates system.

Keywords

Balance of Payments, Central Bank, Gold Standard, Hawtrey, International Currency, Monetary Policy, International Monetary System, Monetary Theory, Triffin, White.