

INTERNATIONAL NETWORK FOR ECONOMIC RESEARCH

No. 18 | 2025

The 1992-93 EMS Crisis and the South: Lessons from the Franc Zone System and the 1994 CFA Franc Devaluation

DOSSOU-CADJA Rodrigue (*Sapienza University of Rome, Paris School of Economics, Ecole des Hautes Etudes en Sciences Sociales*)



Website:
<https://infer-research.eu/>



Contact:
publications@infer.info

The 1992-93 EMS Crisis and the South: Lessons from the Franc Zone System and the 1994 CFA Franc Devaluation

Rodrigue Dossou-Cadja^{1,2,**}

Sapienza University of Rome (Italy), Paris School of Economics (PSE, France), and Ecole des Hautes Etudes en Sciences Sociales (EHESS, France)

Draft 16_on : Sep_22, 2025

****Updated Working Paper N°246 of the European Historical Economics Society (EHES, 11 January 2024)** <https://ehes.org/working-papers/>
<https://ideas.repec.org/p/hes/wpaper/0246.html> / <https://www.econstor.eu/handle/10419/298590> / <https://econpapers.repec.org/paper/heswpaper/0246.htm>

The January 11, 1994, CFA franc devaluation stands as the most significant macroeconomic reform in nearly a century of the Franc Zone system, particularly following the political independences of former African French colonies in the 1960s. Whilst conventional narratives attribute it to fiscal excesses in major economies like Côte d'Ivoire and Cameroon, newly uncovered archival data from the Banque de France, the Bank of England, the Bundesbank (the latter two sourced from Eichengreen and Naef, 2022), and the IMF challenge this view. Instead, I reinstate the devaluation within a much broader common African-European experience: the 1992–93 European Monetary System (EMS) crisis. Evidence unveils its critical role in shoring up the French franc's credibility amidst the crisis and suggests a new 'democratic Franc Zone's Transition Committee' within the Banque de France/Eurosystem for future governance.

Keywords: CFA franc devaluation, Franc Zone, European Monetary System, Currency crisis, Political Independences, Narrative approach.

JEL classification : E42, E58, F31, F33, F42, F53, F54, F55, N14, N17, N24, N27.

¹ I am very indebted to the Banque de France/Eurosystem and its 'Mission historique' (Archives Department, *-Historical Mission-*) for invaluable collaboration on archives, especially to Françoise Pradeux, Alice Perrin, Mathias Badin, Fabrice Reuzé, and Patrice Denis. I am heartily grateful to Eric Monnet (EHESS, Paris School of Economics-PSE and CEPR) for his extensive support, in-depth discussions, and insightful comments, to Rita D'Ecclesia (Sapienza University of Rome) for her full genuine support, to Gilles Dufrénot (Aix-Marseille Université, AMSE), Marc Flandreau (University of Pennsylvania), Oscar Gelderblom (University of Antwerp), William Roberds (Federal Reserve Bank of Atlanta/The U.S. Fed), Arnaud Manas (Banque de France), Olivier Feiertag (Pantheon-Sorbonne & Banque de France), Thomas Piketty (EHESS & PSE), Denis Cogneau (PSE, IRD & EHESS), Yves Atchadé (Boston University), Vincent Bignon (Banque de France), and Maylis Avaro (University of Pennsylvania), for their very enriching comments and discussions. Fundamentally, my profound indebtedness extends to Alain Naef (Banque de France & ESSEC Business School), the fruition of this work would not have been possible without the numerous discussions with him, his invaluable comments, and particularly crucial data sharing. Special thanks to Antoine Jourdan (EHESS) for engaging in limitless, friendly, and fascinating discussions. My appreciation extends to the International Monetary Fund (IMF), the French Treasury, the BCEAO, and the BEAC archives departments. Lastly, I am grateful to Jean-Marie Gankou (University of Yaounde II-Cameroon) and Fassassi Yacoubou for generously sharing their experiences.

² Early versions of this paper has been presented/discussed at the Banque de France (Mission historique), Colloquium 'Currencies, Credit, and Banks to the Colonies', Paris, January 30-2023. <https://www.banque-france.fr/la-banque-de-france/histoire/seminaires-de-la-mission-historique> / <https://www.hegemone.fr/Monnaies-credit-et-banques-aux-colonies-4259> , the 2023 Africa Meeting of the Econometric Society (Session 'Macroeconomics -Monetary Policy', AFES 23), Nairobi, Kenya, June 1-3, 2023; the Journal of International Economics (JIE)'s 1st Summer School in Int. Economics (Rethymno, Crete, Greece, June 14-16, 2023). <https://jie.soc.uoc.gr/poster-presentations/> ; the 'International Conference of Statistics and Applied Economics, CISEA (ENSEA-Abidjan, June 20-21, 2023) ; the 15th European Historical Economics Society (EHES) Conference, Session 7 'Exchange rate regimes and currency wars' (Vienna University of Economics and Business, Austria, September 1-2, 2023) <https://ehesconference.org/> , The Oxford Graduate Seminar in Economics and Social History (OGSESH, November 15, 2023), University of Oxford, Nuffield College <https://talks.ox.ac.uk/talks/id/c66a637a-c842-4701-a006-8fce82a4ee10/> ; and the 'Decolonizing Money and Finance' workshop (Cairo/Egypt on December 13-14, 2023), by the Young Scholars Initiative (YSI), Institute for New Economic Thinking (INET, New York) <https://ysi.ineteconomics.org/event/decolonizing-monetary-policy/2023-12-13/1/> ; <https://ehs.org.uk/event/decolonizing-money-and-finance-ysi-workshop/> ; and the 27th International Network for Economic Research's (INFER) Annual Conference (Rome/Italy, September 10-12, 2025) <https://infer-research.eu/events/27th-infer-annual-conference/>

**** Email :** rodrigue.dossoucadja@uniroma1.it / rodrigue.dossoucadja@psemail.eu

Given the size of France compared to the CFA franc zone, it is clear that the resources available are sufficient to defend a parity if France is willing to do so, and the 1994 devaluation was only necessary because France had decided that the real exchange rate was severely out of line, and hence maintaining it was harmful for the health of the economies concerned.

—PAUL R. MASSON and CATHERINE A. PATTILLO, *Brookings Institution Press*, 2005

There is nothing in the Acts of Congress, which imply an exclusive right in the institution, to which they relate, except during the term of the war. There is therefore nothing, if the public good require it, which prevents the establishment of another. It may however be incidentally remarked, that in the General opinions of the citizens of the United States, the Bank of North America has taken the station of the Bank of Pennsylvania only. This is a strong argument for a new institution, or for a renovation of the old, to restore it to the situation in which it originally stood, in the view of the United States.

—ALEXANDER HAMILTON, [1st United States Secretary of the Treasury], 'Report on A National Bank', December 13th, 1790

This entire silver episode is a fascinating example of how important what people think about money can sometimes be. The fear that silver would produce an inflation sufficient to force the United States off the gold standard made it necessary to have a severe deflation in order to stay on the gold standard. In retrospect, it seems clear that either acceptance of a silver standard at an early stage or an early commitment to gold would have been preferable to the uneasy compromise that was maintained, with the uncertainty about the ultimate outcome and the consequent wide fluctuations to which the currency was subjected.

—MILTON FRIEDMAN and ANNA SCHWARTZ, *Princeton University Press*, 1963
[also *Journal of Political Economy*, 1990]

Yes, of course... we are neo-colonialists. There is no denying it. The proof lies in our efforts to support the development of this country, to train its leaders, to provide it with material and financial assistance, and to do everything in our power to help it achieve a level of development essential for its independence. If that is neo-colonialism, then long live neo-colonialism.

—GEORGES POMPIDOU, [Former President of the French Republic], Fort Lamy (Chad), Press Conference, 28 January 1972

'Il n'y aura pas de dévaluation du franc CFA.' [There will be no devaluation of the CFA franc.]

—BLAISE COMPAORE, [Former President of the Republic of Burkina-Faso], The Elysée Palace, Paris, Press Conference, 31 July 1992

The decisions of the CFA and Comoros francs devaluations within the Franc Zone were taken after a long process of reflection and consultation amongst the countries involved, a process in which the Fund's management and staff discreetly played a constructive role. For some time, I was not in a position to disclose my personal efforts in this matter.

—MICHEL CAMDESSUS, *International Monetary Fund*, 14 January 1994

1. Introduction

Milton Friedman's (1990) judgment act on "The Crime of 1873," about the U.S. Coinage Act of 1873 and its consequential demonetization of silver, marking a transformative shift from "bimetallism" to the Gold Standard system, is a compelling illustration of how historical analysis can reshape conventional profound understanding of the intricate interrelations between political decisions, money, and central banking. Similarly, Marc Flandreau's (1996) examination of 'the same Friedmannian crime' documenting the French case on the question, is another crucial piece, consilising the importance of historical re-investigation of major monetary reforms, potentially subject to extensive political dynamics and decisions.

The CFA franc serves as the shared national currency for fourteen African countries participating in the Franc Zone, all of which are former French colonies, organized into two major regional blocs in Africa: the 'Union Monétaire Ouest Africaine (UMOA)-*West African Monetary Union (WAMU, 8 countries)*, and the 'Communauté Economique et Monétaire de l'Afrique Centrale –*Central African Economic and Monetary Community-* (CEMAC, 6 countries). Its devaluation on January 11, 1994, remains, to date, the most significant post-colonial monetary reform since the political independence of African former French colonies in 1960, spanning almost a century of the Franc Zone system (excluding the pegging to the Euro in Brussels in 1998). Surprisingly, it stands as a fundamentally taboo topic in public debate and economic literature. This devaluation is a central reform in the historical narrative of the Franc Zone. On one hand, it clearly demarcates, over the entire post-colonial period, two distinct subsets of economic evolution and transformation amongst its African member countries. On the other hand, it proved to be a controversial reform among populist perspectives and many African technical executives and scientists. It involved a complex set of parameters, including the Elysée, all Franc Zone's African Heads of state and government at the time, the French Treasury, the Banque de France, and even the role of leading international institutions, particularly the International Monetary Fund (IMF). A notable remark by Michel Camdessus, Managing Director of the IMF at the time, just three days after the devaluation, during the IMF Executive Board meeting of January 14, 1994, stated: *'The decisions of the CFA and Comoros francs devaluations within the Franc Zone were taken after a long process of reflection and consultation amongst the countries involved, a process in which the Fund's management and staff discreetly played a constructive role. For some time, I was not in a position to disclose my personal efforts in this matter. In July 1992 we were close to an agreement, but at the last-minute things did not work; it is, of course, extremely difficult to have 14 countries agree on such far-reaching decisions. Some of the countries were genuinely convinced that they could resolve their serious economic and financial difficulties solely through internal adjustment measures. The failure of that strategy opened the way for them to consider the more comprehensive approach that has just been approved.'* (IMF, 1994a, see archival references)². The Franc Zone, is so an important feature of the International Monetary System (IMS), standing as the unique global case of 'solidarity conventional currency pegging' (IMF, 1949, 1991, 1994), dynamic over time as combining at once a France-Africa colonial history, and a Europe-Africa post-colonial and still current North-South cooperation. In the Banque de France's 1994 annual report on the Franc Zone, it is stated that: 'In the wake of unsuccessful efforts at real adjustment -*particularly with the Bretton Woods institutions, the IMF, and the World Bank-*, the devaluation of the CFA franc represents the adoption of a new strategy to address macroeconomic imbalances that had surfaced during the 1980s' (Banque de France, 1994, p.25).

The existing literature on the CFA franc devaluation of January 11, 1994, including recent works such as Dillner (2022), primarily focuses on the post-devaluation consequences for the WAMU and CEMAC zones' countries. Notably, these studies approach the subject from various perspectives, including

² IMF, 1994a. 'Minutes of the Executive Board Meeting 94/2, 10:00 a.m., January 14, 1994', International Monetary Fund, June 20, 1994, Declassified IMF Confidential archives, Approval 6/27/94.

country-specific, regional, or joint-regional viewpoints. The general consensus from these works indicates no significant effects on trade (Stary, 1995; Dillner, 2022), mitigated effects on prices and substitution phenomena in consumer behavior (Cogneau et al., 1996), and heterogeneous impacts on wages across countries, with no positive statistically significant GDP responses (Cogneau and Collange, 1998; Bouvet et al., 2022). Additionally, no positive statistically significant GDP responses have been reported (Bouvet et al., 2022), and there is no observed relation and causal effects between country price levels across the entire Franc Zone (IMF, 1994b). The devaluation also had zero effect on industrial and sustainable developments (Doghri, 1997). Doghri (1997) attributes the cause of the devaluation to the external competitiveness of the Franc Zone, amplified by France's dependence on Frankfurt's policy. However, he notes a slight and heterogeneous improvement effect on the competitiveness of African producers in the Franc Zone, particularly in the agricultural sector. Kabou (2010) analyzes the 1994 CFA franc devaluation as a pivotal factor in the economic marginalization and isolation of the African continent from the West. It posits that one of the main consequences of the devaluation was notably *'the strengthening of the role of multilateral institutions in the management of African economies and that contrary to what has been said and written, this event was not a sign of marginalization but rather a reflection of the depreciation of French-speaking African countries in relation to the agendas' priorities of France and Europe'*. Kabou (2010, p.179) also underscores that *'this decision resulted in (or coincided with) a commercial shift from Sub-Saharan African countries towards Asia, a trend which was already observable in many African markets before the devaluation: African traders, who previously sourced their supplies mainly from the United States, France, and Italy, have 'shifted away' from Europe in favor of Dubai, Bangkok, India, and China. Additionally, their children are now pursuing studies in the United States and, to a lesser extent, in South Africa'*. Dillner (2022) finds a slight and heterogeneously distributed effect on exports in volume across African countries in the six years following the devaluation. Still, there was no effect, and rather a contraction of exports in value measured in dollar terms. His analysis also suggests that the change in misalignment of the CFA franc just before and after the 1994 devaluation is of a similar magnitude to the current misalignment, implying that unpegging the currency for a floating regime would yield similar results. Despite the fact that the January 1994 CFA devaluation falls within a rather particular period of history for Europe and so France and the entire Franc Zone, being the European Monetary System (EMS) crisis of 1992-3, and although there is always a strong reason to assess *'what they say against what they actually do,'* especially when it comes to central banks and international monetary institutions policies (Werner, 2002), it can be clearly noted that no connection has been made in the literature between this major event in African macroeconomic history and its historical context, the 1992-93 EMS crisis. Though, an important recent work of Perez (2022), in a special issue *the American Journal of Economics and Sociology* (November 2022), entitled *'Exposing and Opposing French Colonialism in Africa'*, insisted on the 1994 CFA Franc devaluation as the perfect 'dramatic' illustration of an 'territorialist logic' French elites conceding a 'Capitalist logic' African elites in a sort an 'Enduring Neocolonial Alliance', still no reference to the historical context of the 1992-93 EMS crisis is made.

Our analyses are based on the narrative approach (see e.g. Romer and Romer 1989, 2004, 2009, 2010; Ramey and Shapiro 1998; Ramey 2011; Guajardo, Leigh, and Pescatori 2011; Cloyne 2011, 2012, 2013; Monnet, 2012, 2014; Schiller, 2017; Bordo et al. 2017, 2019; Antipa and Bignon 2018; Eichengreen and Naef 2020, 2021, 2022), complemented by empirical econometric testing, using DCC-MGARCH-X and SVARs. Our study leverages a unique and unprecedented archives data primarily sourced from the Banque de France, supplemented by data from the Bank of England and the Bundesbank (the latter two from Naef and Eichengreen, 2022). Additionally, we draw on archival data from the International Monetary Fund (IMF), the French Treasury, the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO) - *Central Bank of West African States* - and the Banque des Etats de l'Afrique Centrale (BEAC) - *Bank of Central African States*. Our research takes a novel approach to understanding the decision-making process and policy mechanisms that led to the January 1994 CFA franc devaluation. Specifically,

we argue and provide evidence that the monetary adjustment in the Franc Zone is an integral part of an African-European common history, playing a crucial role in shoring up the market credibility of the French franc amidst the 1992-3 European Monetary System (EMS) crisis. This becomes particularly pertinent given the exposed 1993 episode of the crisis where the French franc faced unprecedented aggressive speculations, and witnessed a decline on its Deutschmark market from July 1993 onwards. Our findings contribute to a deeper understanding of the interconnectedness between African and European monetary and financial landscapes during this crucial period. If Masson and Patillo (2005, chap. 10 p.5) emphasized that *'Given the size of France compared to the CFA franc zone, it is clear that the resources available are sufficient to defend a parity if France is willing to do so, and the 1994 devaluation was only necessary because France had decided that the real exchange rate was severely out of line, and hence maintaining it was harmful for the health of the economies concerned'*, our findings are not contradictory, instead, they illuminate the underlying complexities during that period. It becomes evident that France, precisely at that juncture, found itself incapable of fulfilling its 'Franc Zone's guarantor commitments towards African partners', a situation set against the backdrop of unprecedented aggressions on the French franc amidst the 1992-3 EMS crisis. As Perez (2022, p.874) succinctly phrases it: *'Of course, the single time African governments did have to rely on the overdraft facility, the French treasury imposed a devaluation rather than continue providing support: "What a funny guarantor that treasury!" (Nubukpo et al. 2016: 109)'*, the ironically termed 'funny guarantor' was not at all engaged in a humorous endeavour at the time -ultimately sort of an unwelcome coincidence-. But rather it was a question of navigating pressing concerns related to a steep decline and subsequent devaluation of the French franc itself, framed as a **critical issue** for '**National Security and Currency Defense**', perhaps engaging all global forces and partners, in a radically asymmetric international political game. As James Rickards (2011) stated in *'Currency Wars: The Making of the Next Global Crisis'*: *'If the dollar falls, America's national security falls with it.'*, the 1993 situation was in fact that of *'if the French franc falls, France's national security falls with it'*. Notwithstanding, this also means that the 1994 CFA Franc devaluation, was then a strong symbol of 'a radical fall of national security in all the concerned Franc Zone's African countries'.

The term 'Franc Zone' originated in 1939 when the pre-Vichy regime in France implemented crucial exchange controls led by the Banque de France to shield itself against structural imbalances resulting from the war economy (Banque de France, 2006). The formal establishment of the Franc Zone occurred with the decrees of 1939. The monetary reform of December 26, 1945, led to the creation of the 'Franc des Colonies Françaises d'Afrique (CFA)' - *Franc of the French Colonies in Africa* - and the 'Franc des Colonies Françaises du Pacifique (CFP)' - *Franc of the French colonies of the Pacific* - both having a higher value than the metropolitan franc (French franc). The initial value of the CFA franc was set at 1.7 French francs and was later reevaluated to 2.0 French francs in 1948 (French Treasury, 2019). In June 1949, significant reforms were introduced to the exchange rate system, resulting in three main consequences: (i) total unification of rules for commercial and financial transactions in the CFA Franc Zone and metropolitan France; (ii) restoration in the zone of a single rate for transactions with countries whose currency was not quoted on the free Paris market; (iii) restoration in the CFA Franc Zone of a pattern of exchange rates in accordance with the CFA franc ratio, remaining so even if metropolitan rates vary owing to fluctuations in the dollar rate on the free Paris market (IMF, 1949). Until 1967, the criterion for belonging to the Franc Zone was registration on the official list of territories exempt from France's exchange controls. The 'Comité Monétaire de la Zone Franc'-*Monetary Committee of the Franc Zone*- (CMZF) at the Banque de France was officially established in 1955 as the technical coordination committee, responsible for the stronger rationalization of the monetary Franc Zone (Banque de France, 2006). In anticipation of the 1960 year of independence for the French colonial territories in the Franc Zone in Africa, three ordinances on April 4, 1959, by French President General Charles de Gaulle, introduced two significant modifications related to the political changes in these States. Following the adoption of the Constitution of October 4, 1958, establishing France's 5th Republic, the 'Banque Centrale

des Etats de l'Afrique de l'Ouest'-*Central Bank of West African States*-(BCEAO) and the 'Banque Centrale des Etats de l'Afrique Equatorial et du Cameroun'- *Central Bank of Equatorial African States and Cameroon*-(BCEAEC)³ were created to ensure as of the Bank of Madagascar and the Comoros, equal representation of States in each issuance zone and of the public authorities of the French Republic. The ordinances also specified that representatives of these States would now be appointed by local governments, marking the beginning of the Africanization of the Central Banks, a notable shift from their previous appointment by French authorities (Banque de France, 1960). Coordinatively, discussions initiated in Paris led to the creation of the West African Monetary Union (WAMU) on May 12, 1962. This marked the establishment of an African regional monetary institution with the signing of the first-generation Franc Zone's monetary cooperation agreement between France and the WAMU member States on the same date. This agreement occurred during a period when a new exchange rate had been in force since 1960, with 1 French franc equaling 50 CFA francs, signifying a new era⁴ unlocked. A similar pattern is observed for the countries of the former French Equatorial Africa (AEF), with the first post-independence monetary cooperation agreement between France and the CEMAC⁵ signed in the early 1960s, potentially around May 1962. The governing principles for the broad post-colonial monetary cooperation agreements (1960s for the first generation and 1970s for the second generation) retained some features from the June 1949 colonial reform. These principles included: (a) convertibility into French franc at a fixed parity, representing a conventional radical peg of CFA francs to the French franc, (b) guarantee of unlimited convertibility by France through the establishment of 'Compte-d'Opérations' (Operations Accounts) conventions for each Central Bank (BCEAO and BCEAEC/BEAC) and the French Treasury, (c) free capital mobility throughout the zone, (d) pooling and centralization of most foreign exchange reserves in the different 'Compte d'Opérations' at the French Treasury, and (e) establishment of a common trade and financial policy vis-à-vis the rest of the world⁶.

Our main hypothesis, which centers around the key role of the 1994 CFA franc devaluation in backing credibility of the French franc amidst the 1992-3 EMS crisis, draws inspiration from a fundamental idea contained in the theoretical work of Vallée (1989, p.85-86). Vallée emphasizes that the survival of the Franc Zone system after World War II depended on the subordination of the CFA franc, to every fluctuation of the metropolitan currency (French franc), and specifically, to every fall as well as its strengthening against major international currencies. Indeed, the exchange control imposed by France within the Franc Zone system, sets the terms of access for African members of the zone to international currencies through the new unified foreign exchange market, and this by fixing foreign currencies demand of each member country in a determining bargained import plan with Paris. Vallée (1989) questions a foundational principle of the Franc Zone system—the guarantee of unlimited convertibility of CFA francs by the French Treasury—arguing that this principle is ultimately constrained by market mechanisms driven by agents' actions in a currency market (a game of supply and demand), rather than by public agents *stricto-sensu*. Additionally, he asserts that the international indebtedness of the Franc Zone demonstrates limitations to the Compte d'Opérations facilities due to internal credit policy, exchange regulations, safeguard clauses, and import ceilings. Vallée (1989) suggests that the French attempt to

³ The BCEAEC is replaced by the Banque des Etats de l'Afrique Centrale-Bank of Central African States- (BEAC) in 1972.

⁴ The CFA meaning also changed and becomes the " Franc de la Communauté française d'Afrique - *Franc of the French Community of Africa*" in 1958, and after 1960 independences, " Franc de la Communauté financière africaine -*Franc of the African Financial Community*-" in West Africa and the "Franc de Coopération Financière, -*Franc of Financial Cooperation in Central Africa*-" (French Treasury, 2019).

⁵ The previous 'Union Douanière et Economique d'Afrique Centrale (UDEAC) - *Customs and Economic Union of Central Africa (CACEU)*- by the treaty of Brazzaville of December 8, 1962, was replaced on January 16, 1994, by the 'Communauté Economique et Monétaire de l'Afrique Centrale (CEMAC)- *Central African Economic and Monetary Community*-'.

⁶ **Article 4** of the first monetary cooperation agreements of May 1962 in the case of WAMU, is the one that defines the key principle at stake, namely: 'a guarantee of unlimited convertibility of the west african CFA franc by French Treasury, within a framework of fixed parity (conventional hard peg), and which requires in return deposit of the total foreign exchange reserves of the BCEAO (except the necessary availabilities for its current cash flow) in the 'Compte d'Opérations' at French Treasury, provided for in the related conventions accompanying the monetary cooperation agreement' --- Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes...1955-1975, 'Statuts de la Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO), Entrés en vigueur le 1^{er} Novembre 1962, dossier Secrétariat du Comité Monétaire de la Zone Franc (CMZF)', (ABF, 1466200601/167).

renovate a more open monetary system, whilst benefiting from a guarantee, came up against heavy challenges after the war due to the continual deterioration of the French franc value. As such and notwithstanding the overall principles, a devaluation of the CFA franc within the Franc Zone is equivalent to a long-run revaluation signal for the French franc on the internationally unified foreign exchange market, and vice versa. The alternative hypothesis that the January 1994 CFA franc devaluation is completely disconnected from the 1993 French franc fall episode in the 1992-3 EMS crisis appears less relevant for several reasons. First, the foundational principles of the Franc Zone clearly establish common direct trade (bargained African Franc Zone's countries imports/exports plan with Paris) and financial linkages (the *Compte d'Opérations*) between the French franc and the CFA franc. This implies that unconditional market interdependence is valid, or at least a minimum fundamentals-based contagion will always occur between the two currencies in crisis times, possibly with some bounded time delay, in line with historical examples such as the Gold Pool, where the Sterling devaluation in November 1967 was followed by the collapse of the Pool in March 1968 and then the end of the Bretton Woods system in August 1971 (Bordo, Monnet, and Naef, 2017, 2019). Second, the idea that minimal conditional contagion will always occur from France to Africa is supported by Vallée's (1989) concept, given the somewhat colonial and France- leadership nature of the Franc Zone construction. The conventional currency pegging already constrains the African Central Banks in the Mundellian trilemma sense (Fleming, 1962 ; Mundell, 1963), preventing them from achieving an 'Rogoffan' independence (Rogoff, 1985), with its associated globalized world risks (Rogoff, 2021). In this dynamic political game, France remains the definitive northern leader/controller involved, as observed in the case of Britain and the Sterling Zone (see e.g. Schenk, 2010; Nyamunda, 2017; Schenk, 2021; Avaro, 2021, 2024). Additional arguments supporting this direction include the demonstration in global coordination that contagion typically operates from the most economically powerful countries to the least ones (see Rey, 2013, 2016; Miranda-Agrippino and Rey, 2022; Forbes and Rigobon, 2000, 2001; Schenk, 2021), or quite simply from the North to the South (Caramazza et al., 2004; Dossou-Cadja and D'Ecclesia, 2022, 2024; Dossou-Cadja, 2024). Also, imbalances in global cooperation are often more costly for the South (Halasi, 1942; Stiglitz, 1998a, 1998b; Lutfala and Flandreau, 2005; Flandreau, 2006, Feiertag, 2020). Another side hypothesis, suggesting that a CFA devaluation results only from domestic structural imbalances within the WAMU and CEMAC monetary unions, is fully challenged by a diverse set of non-conclusive empirical results discussed above. These results raise questions about the optimality of each of the monetary unions individually and their combined optimality within the Franc Zone system, clearly ruled out by the IMF (1991, see archival references), also with diverse heterogeneous effects. The question of monetary union optimality, its implications for fixing or floating exchange rate regimes, and the potential policy time inconsistency problem are subjects explored in a range of literature (see Keynes 1930; Friedman, 1953; Mundell, 1961; Kydland and Prescott, 1977; Fornaro, 2022). The complexities of these issues contribute to the ongoing discussion about the functioning and effectiveness of the Franc Zone and its regional monetary unions.

Putting all of this into perspective, the assessment of potential interrelated mechanisms between the January 1994 CFA franc devaluation and the 1992-3 EMS crisis is amongst the scientifically toughest projects to undertake. The subject faces significant challenges due to a highly delicate and politically sensitive taboo across the Franc Zone, making access to archives and data in France and its Franc Zone African partner countries extremely difficult and complex. This complexity has turned the topic into one of the most mysterious in nearly a century of the Franc Zone. For instance, some officials from the Banque de France revealed in recent interviews that an initiative in 2014 for a conference-debate project on the 20th anniversary of the CFA Franc devaluation, aiming to revisit the factual circumstances of that time, was classified at the highest political level. Practically, none of the actors involved at the time and still valid were willing to participate in such a scientific event. The *Compte d'Opérations*, a fundamental financial and reserves linkage variable within the Franc Zone, which is subject to numerous daily transactions between the African Central Banks of the Franc Zone (BCEAO, BEAC, and the Comoros)

and the French Treasury, is radically inaccessible due to heavy protection under France's heritage code at the French Treasury. The story we are finally able to offer in this paper sort of thirty (30) years later the January 1994 CFA devaluation (after some other stories temporarily put on hold all the way), comes from a long and progressive research process involving over two years of patience, dedication, and continuous negotiations with various economic and monetary administrations in both Africa and France, with the support of a sound personal network all across the Franc Zone. The definite game changer for our findings, would have been recent declassification of some important Franc Zone archives at the Banque de France, access to which has led our major intuitions. Then came very opportunisticly the crucial work of Eichengreen and Naef (2022), with their extremely generous sharing (by Alain Naef, Banque de France) of uniquely constructed extensive daily data on the 1992-3 EMS crisis (mainly from both the Bank of England and the Bundesbank archives, and basically on all EMS Central Banks from 1986 to 1995), to close a long-standing data struggle. With these resources, we were able to construct proxies for the fundamental financial linkage variables within the Franc Zone, including the *Compte d'Opérations* (inaccessible). Our proxies mainstream key variables such as the French franc/Deutschmark exchange rate (*the main target variable during the 1993 France episode of the 1992-3 EMS crisis*), the CFA/US dollar rate (*capturing speculators' perception of 'France's leading role within the Franc Zone' on the internationally unified foreign exchange market*), and the Banque de France Deutschmark intervention-reserves linkage channel including somehow the Franc Zone's '*Compte d'Opérations*'. We indeed identified a corresponding account of the *Compte d'Opérations* (from the French Treasury) at the Banque de France, known as the Foreign Currency Account for each African Central Bank of the Franc Zone, within the framework of the 'Fonds de Stabilisation des Changes' (FSC, *French Exchange Stabilization Fund*).

Econometric results aligned with our archives narrative, highlight the presence of a permanent second-order valid conditional co-movement (pure contagion) between the French franc/Deutschmark and the CFA/US-dollar exchange rates. This finding suggests a policy substitution option between these two variables for market adjustments during currency crisis times, as observed in the case of the 1992-3 EMS crisis. The Banque de France Mark's intervention proves to be acting as a fundamental financial linkage variable across the Franc Zone. Additionally, we unveil evidence indicating that the widening of the ERM bands on August 2, 1993, amidst the French episode of the crisis from July 1993 onwards, corresponds to a European solidarity action to France. This action involved an enforcement of exchange controls over the Franc Zone on the same date (August 2, 1993), combined with an asymptotic recalibration of the bands around the historical extrema of the CFA/US-dollar rate, with the most recent historical maximum value reached on September 2, 1992, and the minimum less than a month after the January 1994 CFA devaluation on February 8, 1994. Whilst this policy measures were not sufficient for a sustainable comeback of the French franc, the January 1994 CFA devaluation played a crucial role as a relauncher of the Franc/Deutschmark's long-run market signal. Surprisingly, the 1993 French episode of the crisis, despite having no 'traditional fundamentals' problem in France (inflation, public deficit, and external balance were all on point), presented more severe characteristics than the 'Black Wednesday' (September 16, 1992), which led to Britain's forced exit from the European Exchange Rate Mechanism (ERM)⁷. However, France managed to maintain its place in the mechanism, leveraging its additional attributes of the Franc Zone (key player in the International Monetary System), backing its African partner currencies (the CFA francs and the Comoros franc) in the conventional-peg arrangements. It's crucial to emphasize the role of international partners, notably the International Monetary Fund (IMF) channel, in this market adjustment process. The disagreements over the overvaluation of the CFA Franc within the Franc Zone

⁷ The Bank of England spent US\$ 22 billion on the Black Wednesday in interventions for defending the British pound sterling value, but failed to the task. The Banca d'Italia (Bank of Italy) on its side spent US\$ 6 billion on that same day to defend the Italian lira, and still got some technical realignment within the ERM (Eichengreen and Naef, 2020, 2021, 2022).

system (firm position of the Camdessus IMF administration), particularly during a period when African partners were grappling with heavy public deficits and undergoing Bretton Woods' structural adjustments since the early 1980s, played a substantial role in shaping the dynamics of the crisis.

Our contribution to the overall literature on the Franc Zone system (see e.g. IMF, 1949, 1991, 1994; Vallée, 1989; Glaser and Smith, 1992, 1997; Stary, 1995; Cogneau et al., 1996; Parmentier and Tenconi, 1996; Doghri, 1997; Cogneau and Collange, 1998; Pouemi, 2000; Masson and Patillo, 2005; Alfaro, 2005; Glaser, 2014; Dembélé, Nubukpo, and Ze Belinga, 2015; Tchatchouang, 2015; Nubukpo et al., 2016; Guillaumont and Guillaumont-Jeanneney, 2017; Jacquemot, 2017; Feiertag, 2020; Avom, 2020; Amato and Nubukpo, 2020; Nubukpo, 2007; 2020, 2021a, 2021b; Pigeaud and Sylla, 2021; Bouvet et al., 2022; Dillner, 2022; Perez, 2022; Cogneau, 2023; Dossou-Cadja, 2024), is significant, offering new insights and evidence regarding the historical dynamics of coupled dominion currency management within the zone. By providing precise historical context and evidence related to the January 1994 CFA franc devaluation, our work supports and extends the theoretical ideas put forth by Vallée (1989), highlighting the subordination of the CFA franc to fluctuations in the French franc within the Franc Zone system. Furthermore, our contribution adds to the broader understanding of post-colonial foreign exchange systems, drawing parallels with other important works that have explored similar topics in the context of Britain and the Sterling Zone (see e.g. Schenck, 2010, 2021; Nyamunda, 2017; Avaro, 2021, 2024; Ilzetzi, Reinhart and Rogoff, 2022). The comparison with these other cases enriches the literature and helps in drawing fundamental lessons and insights into the functioning of such currency arrangements.

We also deliver contribution to the extensive literature on historical dynamics between exchange rates (see e.g. Obstfeld and Rogoff, 1995; ECLAC, 1996 ; Kaminsky and Reinhart, 2000; Forbes and Rigobon, 2000, 2001, 2002; Pesenti and Tille, 2000; Caramazza et al., 2004; Reinhart and Rogoff, 2004, 2011; Mitchener and Weidenmier, 2008; Davies, 2018; Bordo, Monnet, and Naef, 2017, 2019; Eichengreen and Naef, 2020, 2022; Dossou-Cadja, 2024) by unveiling historical conditional co-movements effects between the French franc/deutschmark and the CFA/dollar rates. Another contribution concerns the ERM and 1992-3 EMS crisis broad literature (see e.g. Froot and Rogoff, 1992; Branson, 1993; Eichengreen and Wyplosz, 1993; Tietmeyer, 1998; Garretsen et al., 1998; Buiter et al., 2001, Eichengreen, 2002; Feiertag, 2013; Eichengreen and Naef, 2020, 2022), by showcasing the 1993 very French episode of the crisis, with a new story of integrated Franc Zone's policy intervention mechanisms behind. By the same means a contribution is also made to the literature on Central Banking, especially the risks to Central Bank Independence in a world of globalization, and from the Franc Zone's North-South monetary cooperation perspective (see e.g. Friedman and Schwartz, 1963; Barro and Gordon 1981, 1983; Rogoff, 1985, 2021, 2022; Taylor, 1993, Svensson, 1996, 1997a, 1997b); Beetsma and Jensen, 1999; Guillaumont-Jeanneney, 2006; Goodhart, 2010; BIS, 2011; Ajakaiye and O'Connell, 2011; Bordo and Roberds, 2013; Jàcome, 2015; Roberds and Velve, 2016a, 2016b; Goodhart and Lastra, 2017, 2018 ; Tucker, 2018, 2020; Balls et al., 2018; Goodhart and Pradhan, 2021, Njoroge and Murinde, 2021; Monnet, 2021, 2024; Roberds and Quinn, 2024, 2019, 2018, 2016, 2015 (a, b), 2007).

In a broader context, our research contributes to extended literature on the political economy of (colonial) monetary unions and integrations, as well as the political economy of historical international cooperation and economic development (see e.g. Halasi, 1942; Friedman, 1953; Mundell, 1961, 1972, 2002; Wauthier, 1972; Stiglitz, 1998a, 1998b; Frankel and Rose, 1998; Frankel, 1999; Rey, 2001; Acemoglu et al. 2001, 2002; 2005; Alesina and Barro, 2002; Acemoglu and Robinson, 2012, 2017; Lutfala and Flandreau, 2005; Masson and Patillo, 2005; Alfaro, 2005; Flandreau, 2006; Schenk, 2010; Doepke and Schneider, 2017, Nyamunda, 2017; Feiertag, 2020, Schenk, 2021; Avaro, 2021, 2024; Fornaro, 2022; Perez, 2022; Etogho et al., 2022; Eben and Dalton, 2022; Ebatamehi, 2022; Nganang, 2022; Njoh, 2022; Eben et al., 2022; Cogneau, 2023). By delving into the intricate dynamics of the WAMU and the CEMAC monetary unions within the framework of the Franc Zone's historical North-South cooperation, we offer a snapshot of the

associated international political game involving France/Europe. This research enriches the existing literature by offering insights into the intricacies of the policy implementation process and outcomes within the framework of North-South cooperation, providing a nuanced historical dynamics understanding of the discourse on the political economy of monetary unions in such regard, with implications for economic development and regional partnerships.

The subsequent sections of our paper are organized as follows. Section 2 scrutinizes the aftermath of the 1994 CFA franc devaluation, delineating winners and losers and offering subtle insights into the diverse impacts on different stakeholders. Section 3 delves into the institutional landscape, providing a comprehensive exploration of key positions held by various entities, combined with Appendix D elucidating some key leaders in the devaluation policy implementation. Section 4 revisits the 'Compte d'Opérations,' a pivotal financial linkage element at the heart of the Franc Zone system. Section 5 reconstructs a brand-new chronological narrative on the January 1994 CFA franc devaluation, drawing on Archives of the Banque de France (ABF) to shed new light on the decision-making process. Section 6 summarizes crucial interviews conducted in Africa, offering additional perspectives on the devaluation from those directly impacted. An additional empirical robustness checking with counterfactual is also provided on the question in Section 7. And then Section 8 delivers the way-forward for the Franc Zone monetary cooperation, suggesting a New democratic Transition Committee for the Franc Zone at the Banque de France for a more democratic discussions and governance, something inspired by a pioneer idea for 'the Central Banks of the future' in Monnet (2021, 2024). Concluding remarks in Section 9 stress the imperative of a political opening-up to foster extensive public debate, rigorous research, as well history restoration.

2. Winners and Losers of the 1994 CFA Devaluation

Inspired idea from Thomas Piketty's earlier comments (mid July 2023), examining the winners and losers of the January 1994 CFA franc devaluation involves navigating a complex landscape characterized by profound issues and diverse actors, and could also be the topic of another whole chapter. This exploration encompasses an analysis of how this major macroeconomic reform in Africa has, in various ways, led to direct or indirect transfers of utilities—entailing gains and losses—amongst three major stakeholders: the African peoples within the Franc Zone, their political leaders, and international partners.

The archives of the International Monetary Fund (IMF) provide extensive insights into such intricate dynamics of utility transfers within the framework of the January 1994 CFA franc devaluation. Through careful examination, a narrative unfolds, highlighting how the devaluation played a role in bolstering the institutional foundations of economic integration within each of the regional blocs of the CFA franc zone, namely WAMU and its eight countries in West Africa and CEMAC and its six countries in Central Africa. These institutional changes, which are a direct result of the Bretton Woods (World Bank and International Monetary Fund (IMF)) Structural Adjustment Programs (SAP), have come to initiate an economic integration of the countries of these two CFA franc monetary blocs, each obviously non-optimal until then (IMF, 1991) inherited from more of a colonial rather than an economic origin. Kabou (2010, p.179) is fully in such direction, saying the devaluation was notably the strengthening of the role of multilateral institutions in the management of African economies. The impact of these institutional changes, arguably more substantial than the devaluation itself, was particularly crucial given the structural economic challenges faced by developing countries, including those within the CFA franc zone, since the early 1980s. The reform initiatives led to the establishment of a new framework for fiscal policies management, the introduction of multilateral convergence and stability pacts featuring specific criteria for each zone

(subsequently WAEMU⁸ and CEMAC), encompassing aspects such as public deficit, inflation targets, and arrears. Additionally, these reforms gathered structural changes in trade policies and the implementation of new sectoral strategies. These long-term institutional gains stemming from the CFA franc devaluation of January 1994, reflected in the continued existence of such features today, position the African countries of the CFA zone and their regional economic and monetary institutions (WAEMU, BCEAO, CEMAC, BEAC) as direct beneficiaries across successive generations.

A second crucial dimension of gains and losses arising from the January 1994 CFA franc devaluation involves the fundamental interplay between conditionality imposed by the International Monetary Fund (IMF), the so-called ‘Balladur doctrine’ (see Perez, 2022), issues of good governance, and concerns regarding corruption in Francophone Africa. The devaluation precipitated a reconfiguration of the IMF's support mechanisms for all the countries within the Franc Zone that undertook this reform—specifically, the West African Economic and Monetary Union (WAEMU), the Central African Economic and Monetary Community (CEMAC), and the Comoros. In response to the devaluation, the IMF introduced the Enhanced Structural Adjustment Facility (ESAF) immediately after the events of January 11, 1994. The ESAF was designed to enhance and, in some cases, replace the Structural Adjustment Facility (SAF), which had been operationalized in line with the vision of Structural Adjustment Programs (SAP) since the early 1980s. The ESAF played a crucial role in unlocking additional financing, debt forgiveness bargainings with the international community, and rescheduling of arrears for the African countries in the Franc Zone. These financial supports were initially placed on standby within the SAF framework, but were essential for the structural consolidation efforts and the resolution of balance of payments challenges faced by these nations. The ESAF, implemented as an initial three-year program, facilitated the provision of direct concessional loans and transfers, including the rescheduling of arrears and mediated negotiations by the Fund for debt cancellation with international creditors (both the Paris and the London Clubs), all these amounted to several billion dollars injection, from the IMF towards authorities of African countries in the Franc Zone immediately following the devaluation. The Banque de France (1994, p.28) also highlighted various other measures taken to mitigate the negative consequences of the devaluation. These efforts included increased external financing to African countries within the Franc Zone system, from multilateral partners such as the International Development Association (IDA), the African Development Bank (AfDB), and the African Development Fund (AFD). Additionally and crucially, aid from the World Bank previously suspended, has been reinstated. Bilateral donors were also engaged, the case of France for illustration, that has established a special Funds of 400 million French francs (FF) for its African partners of the Franc Zone, and provided a significant debt relief totaling 25 billion FF in 1994. Perez (2022, p.875) characterized this debt relief as ‘a face-saving measure for African presidents’.

The minutes of the IMF Executive Board Meeting held on March 11, 1994, at 10:00 a.m., provide a vivid illustration of the tangible impact of the International Monetary Fund (IMF)’s Enhanced Structural Adjustment Facility (ESAF) on the financial dynamics of Côte d'Ivoire for example. This West African country, with external financing needs projected at \$2.5 billion for the year 1994, found a resolution for the shortfall of \$1.3 billion within the framework of the ESAF (only \$1.2 billion delivered earlier by the SAF). In a specific instance, the Swiss Government's announcement on March 9, 1994, regarding the cancellation of its claim of 320 million Swiss francs against Côte d'Ivoire played a central role in addressing the country's financial requirements (IMF, 1994c, archival references). Beyond the direct monetary gains for the African countries in the Franc Zone, particularly for their respective authorities at the time, the ESAF raised a fundamental question regarding IMF conditionality. The case of the Comoros, as highlighted in the IMF's minutes of the Executive Board meeting on March 11, 1994, underscores that the devaluations of the CFA and the Comorian francs were set as conditions by the IMF for the concerned countries to access the ESAF facility. In essence, these devaluations served as prerequisites for unlocking additional financing requests that were pending within the SAF framework. The Comoros, having devalued the Comorian franc by 33% against the French franc on the same day as the CFA franc

⁸ The story is, the ‘West African Monetary Union’ (WAMU) has become ‘West African Economic and Monetary Union (WAEMU)’, from the eve of the 11 January 1994 CFA franc devaluation.

devaluation (January 11, 1994), had previously received initial financing from the Fund under the SAF program in 1991. However, its request for additional financing of SDRs 1.35 billion had remained on standby until the devaluation. Mr. Wire, one of the Fund's Alternate Executive Directors, said of the Comoros case (IMF, 1994c): *'At the time of the Board discussions in August 1993, we stated that it was too early to determine whether a second Annual SAF agreement was justified, given the uncertainties that exist regarding both policies and prospects. Thanks to the Comoros government's renewed and welcome commitment to economic reform and growth-oriented economic policies, these uncertainties no longer exist. The devaluation of the Comorian franc was a courageous step, as well as an essential condition for renewed growth, and it will apparently be well complemented by the other measures envisaged in the program and the prior actions that have been taken. We support the proposed decision and have only a few comments on the program, most of which agree with the views of the two previous speakers.'* All of this underscores the significance of the 'Balladur doctrine' from September 1993, in the international political game surrounding the CFA franc devaluation process. This undoubtedly entailed close cooperation between the French Government and the Bretton Woods Institutions. The Balladur doctrine stipulated that France would provide financial aid only to African partners of the Franc Zone that had renewed their financing agreements with the IMF (Banque de France, 1994: p.26; Parmentier and Tenconi, 1996: p. 155; Masson and Patillo, 2005: chap.2, p.8; Perez, 2022: p.874). Then, the condition for the IMF, under the leadership of the Camdessus Administration at the time, to resume concessional programs with these countries was contingent upon their acceptance of the monetary adjustments.

The impact of the IMF's Enhanced Structural Adjustment Facility (ESAF) on the African countries of the Franc Zone, particularly in terms of monetary gains resulting from devaluations (CFA and Comorian francs), prompts a critical question: did these transfers genuinely and equitably benefit the affected populations? The existing literature on devaluation reforms, as highlighted in the introduction, already provides mixed results, indicating the complexity of assessing the real impact on the people. A relevant perspective is offered by Cogneau (2023), whose work sheds light on the postcolonial governance climate in the African countries of the Franc Zone. This climate, shaped by the legacy of French colonialism, tends to be characterized by authoritarianism and inequality within the State apparatus. Perez (2022) also similarly characterized the postcolonial France-Africa cooperation –*the so-called 'la FrançAfrique'*– as a dual elitist interest game, with the French side pursuing a 'territorialist logic' and conceding for the African one a purely 'capitalist logic'. Considering this context, it becomes apparent that the primary beneficiaries of the post-devaluation transfers facilitated by the Fund's ESAF, are the elites in power in these African countries. Unfortunately, this situation implies that the general populations, the intended beneficiaries, often experiences adverse consequences, making them the significant losers in these financial utility transfers' dynamics. This viewpoint resonates with the observations of Nubukpo et al. (2016), particularly when examining the direct adverse effects of the devaluation. Such negative effects include not only the *de facto* doubling—effectively a large 50% devaluation of the CFA franc—of the outstanding and service of external debt of the African countries within the Franc Zone (which had already been worrisome since the early 1980s), but also a severe weakening of the purchasing power of households in Francophone Africa. Furthermore, the cumulative impact includes increased indebtedness and heavier taxation (see Banque de France, 1994, p.27) for individual producers such as farmers, and larger enterprises. The overall narrative suggests that whilst the monetary gains may have been directed toward authorities and elites, the broader peoples faced challenges and heavy losses, particularly in terms of economic well-being, welfare and purchasing power.

Addressing the fundamental stake for the International Monetary Fund (IMF) in activating the conditionality mechanism during the European Monetary System (EMS) 1992-93 crisis, particularly to encourage the devaluation of the CFA and Comorian francs, is also crucial to the winners and losers' question. It raises concerns about whether the decision was solely driven by the logic of ongoing structural adjustments or if additional considerations, perhaps linked to broader multilateral cooperation and the interests of the Franc Zone guarantor, France, played a role. The answers to these questions, as presented in this article, contribute a fresher perspective. The analysis suggests that the activation of stricter

conditionality during this specific period, was likely influenced by a combination of factors. Whilst the logic of structural adjustments initiated in the early 1980s did play a role, there may have been broader considerations tied to some more serious interests of France, guarantor of the Franc Zone system. Understanding the motivations behind the IMF's actions during the 1992-3 EMS crisis and the subsequent 1994 devaluation of the CFA and Comorian francs, requires considering the multifaceted nature of international relations and cooperation. Inter alia, this article by providing new insights into these dynamics, offers a more comprehensive intake of the intricate factors at play, during a critical period in the economic history of the Franc Zone system.

3. Some key institutional positions

The technical position of the Banque de France (BdF), under the administration of Governor Jacques de Larosière, as reflected in the CERDI and Guillaumont's reports of May 1989 and October 1993, remained unfavorable to the devaluation of the CFA franc (see archival references of the BdF). These reports, commissioned, discussed, and approved by the Secretariat of the General Council and the Council for Monetary Policy - *Secrétariat du Conseil Général et du Conseil de la Politique Monétaire*- of the Banque de France, provided a negative assessment of the prospects for a CFA franc devaluation. In contrast, the International Monetary Fund's (IMF) Managing Director Michel Camdessus, who had previously served as Director of the French Treasury (1982-1984) and as Governor of the Banque de France (1984-1987), maintained a more political than technical stance, expressing firm support for the devaluation of both the CFA and Comorian francs. However, there is no indication, as of now, of a precise technical report from the IMF analyzing the potential misalignment of the CFA and Comorian francs against the French franc, and thus no clear projection of a potential rate of devaluation from 1990 or earlier until the actual devaluations in January 1994. The available archives suggests that the IMF's position was influenced more by political considerations and general empirical results, including studies by economists from the World Bank, such as Cottani et al. (1990) and Ghura and Grennes (1993). These studies explored the negative relationship between economic growth and exchange rate misalignments, pointing to potential challenges faced by developing countries at large, under structural adjustments since the early 1980s, including those in the African countries of the Franc Zone. It's noteworthy that the first comprehensive study on exchange rate misalignments within the Franc Zone, conducted by Devarajan (1997) -*an Economist rather from the World Bank*-, emerged later in response to criticisms of the 1994 CFA franc devaluation. Devarajan's retrospective analysis, published in the Journal of African Economies, highlighted concerns about misalignments of CFA exchange rates against the French franc in late 1993, albeit with significant heterogeneity across the zone and an average misalignment of 30%, rather than the 50% devaluation uniformly performed.

The retrospective analysis conducted by Devarajan (1997) on exchange rate misalignments within the CFA franc zone revealed so, significant heterogeneities in potential misalignments across individual countries, both in the CEMAC (the 'Communauté Économique et Monétaire de l'Afrique Centrale') and WAMU (West African Monetary Union) zones. Specifically, in the CEMAC Zone, Chad was undervalued by 19%, whilst member countries were overvalued in different respects, i.e. the Central African Republic (CAR) by 20%, Gabon by 51%, Congo by 58%, and Cameroon by 78%. In the WAMU Zone, Benin had a potential misalignment of just 3%, Burkina Faso 9%, Niger 17%, Senegal 22%, Côte d'Ivoire 36%, Mali 39%, and Togo 52%. These figures highlight the diverse heterogeneous misalignments amongst the countries in each zone. However, as the 1994 CFA franc devaluation was implemented at a common rate of 50% for all member countries, consequently, countries with lower potential misalignments may have borne the costs for countries with higher ones. In the CEMAC zone, Chad emerges as a notable loser, whilst in the WAEMU zone, Benin, Burkina Faso, Niger, and Senegal are identified as significant losers, having to pay the heavy bills of other member countries, particularly those with higher rates like Côte d'Ivoire, Mali, and Togo.

The International Monetary Fund's (IMF) less serious technical take on the question of the CFA and Comorian francs' devaluation, as compared to its meticulous analysis of the potential devaluation of the French franc within the context of the European monetary system (EMS) crisis of 1992-93, suggests a difference in the perceived importance of these two events for the Camdessus Administration. Whilst there is ample evidence of extensive technical studies and reports in the Fund's archives particularly in 1993, assessing various scenarios for a French franc/deutschemark devaluation, the same level of detail and analysis is not readily available for the CFA and Comorian francs' devaluation. This difference in approach indicates varying interests and priorities. The role of the French Treasury in this context remains unclear due to inaccessible archives. However, the overall picture appears to involve considerations of alignment, political positioning, and international cooperation, particularly with the Camdessus Administration of the IMF. The story of the first failed attempt to devalue the CFA franc in late July 1992 highlights the involvement of Camdessus, who was mandated and authorized by the French Left-wing Government's Prime Minister at the time, Mr. Berezovoy, for a mission in Francophone Africa in Dakar on July 28, 1992. The objective was to address political divergences amongst African Heads of State in the Franc Zone regarding the CFA franc devaluation and persuade them to unanimously accept the reform. This episode underscores the clear interest of France in the CFA franc devaluation and the IMF's role as a key ally in the operationalization process. Further details on these positions are explored in subsequent sections.

4. The 'Compte d'Opérations': What are data saying?

The 'Compte d'Opérations-*Operations Account*- (CO)' originated from the decree No. 55-938 of July 15, 1955, approving the statutes of the Issuing Institute of French West Africa and Togo. It was a colonial-era feature whose first statistics appeared in the balance sheet of the issuing institution in 1956's report of the Franc Zone. While historically rooted, questions persist about the intrinsic legitimacy of this tool in a post-colonial context, raising concerns about economic and monetary sovereignty for African countries. The continued existence of the Comptes d'Opérations prompts a deeper examination of its post-colonial relevance and the underlying strategic motivations shaping the economic and geopolitical dynamics within the Franc Zone.

The Compte d'Opérations (CO) holds a pivotal role as per foundational texts, serving as the primary instrument ensuring Franc Zone members' access to foreign reserves. This mechanism involves the French Treasury guaranteeing the unlimited convertibility of CFA and Comorian francs at a fixed rate. In return, the Central Banks of the involved countries deposit all their foreign reserves at the French Treasury in these accounts. This fundamental principle sets the Franc Zone apart from other conventional peg arrangements. Over time, the rules governing the CO have evolved, marking distinct generations of monetary cooperation in the zone⁹. The initial (first) generation agreements of May 1962 mandated a 100% rule, requiring Central Banks to deposit their reserves in the CO. However, subsequent generations saw a reduction in the required margins, with the BEAC lowering it to 75% of reserves in 1972 and the BCEAO further reducing it to 65%. The rationale for these changes included allowing Central Banks to manage reserves for current cash flow, address liabilities in Special Drawing Rights (SDRs) with the International Monetary Fund (IMF), and consider subscriptions to short-term foreign securities issued by certain international financial institutions on the unified global money market. While the European Union (EU) Council credited this rule in 1998, subsequent modifications occurred, such as the BCEAO shifting to 50% for CO's reserves rule in 2005 (2007 for the BEAC), and then its complete removal (i.e.

⁹ Banque de France archives (ABF) : 'Conventions de coopération monétaire entre les États membres de la BEAC et la France : extrait de JO ; réglementation des changes dans les États membres : note ; 1973-1980, (ABF, 1466200601/211) ; 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes', 1955-1975 ; 'Réformes monétaires : notes, correspondance, extraits de presse, textes réglementaires, compte-rendu ; représentation de la France au conseil d'administration : correspondance ; arrêt des comptes de l'ancienne Banque Centrale : correspondance, rapport, statistiques ; organisation et fonctionnement : notes, texte réglementaire, correspondance' ; 1959-1963, Convention de Compte d'opérations, 1973, (ABF, 1466200601/167)

suppression of the CO) since the Macron-Ouattara jointly announced reform for WAEMU (and so only the BCEAO, see Avom, 2020) in December 2019 (third generation agreement). A proper quandary thrown up by this CO removal reform concerns its readability and assessment, which remains pretty much inscrutable for researchers, lacking access to historical data from the Operations Accounts (CO). Avom (2020) also brings up another entirely pertinent issue, hinting at its discriminatory and non-inclusive nature within the Franc Zone, as it quite surprisingly excludes Central Africa (CEMAC and BEAC), focusing solely on West Africa (WAMU and BCEAO). Despite these adjustments, the CO rule still retain characteristics of heavy monetary control in the sense of Avaro (2021, 2024) by the French Treasury over African Central Banks in the Franc Zone (political risk). This control limits the Central Banks' ability to accumulate reserves in currencies other than the French Franc -*eventually the supreme US dollar*- and, subsequently, the Euro since its adoption on January 1, 2002, posing challenges related not just hence to political risk, but also then to a non-diversification risk¹⁰. Such control somehow over monetary policies of the African Franc Zone's Central Banks, is also the sense of a chapter by Kako Nubukpo on the CFA franc in a very recent important collective book on French colonialism by Singaravélou et al. (2023).

Furthermore, in an archival note from 1968¹¹, a technical note on the BCEAO Foreign Currency Account from the French Governor of the BCEAO in 1968¹², Mr. Robert Julienne, to Mr. Theron, who was the Director General of Foreign Services at the Banque de France during the tenure of Governor Jacques Brunet, we have this paragraph: *'During the recent events in France, which led to the closure of the foreign exchange market in Paris, it appeared dangerous for the very future of the Franc Zone that the links of West African States and foreign countries other than France are totally dependent on circumstances purely internal to the latter country. Also, the French Minister of Economy and Finance took the decision to authorize the BCEAO to open an account in a foreign country, an account which would be provisioned by the Banque de France in foreign currencies, and by the debit from which it could ensure certain priority transfers requested exclusively by the Governments of the Union, in particular to supply their diplomatic posts (cf; note from the Treasury Department to the Minister dated 29 May 1968)...*'. It can be clearly understood that the 'Compte d'Opérations' has a corresponding account at the Banque de France named 'Foreign Currency Account of the BCEAO' and is a key element which, well beyond its character as to guarantee an unlimited drawing for currency defense of African Central Banks within the Franc Zone in cooperation with France, nevertheless offers some regulatory control over African Central Banks reserves and serves to a certain extent as a strategic stake for exchange risk management of the French Franc and therefore of its value. It can be assimilated to a quasi-instrument of positive monetary policy at France's benefit, which, in the principle of obligation made to Central banks with COs to constitute almost all of their reserves in French franc by the purchase of treasury bonds and affiliates or direct transfers, increases the level of transactions on the free Paris market in the latter and therefore strengthens consideration and confidence of the market in the in-questioned French franc (subsequently the euro) as a store of value, of course, one of the basic functions of money (Fisher, 1911; Keynes, 1930, 1936; Friedman, 1956; Minsky, 1960). Especially when it is no secret with regard to the Fed (2021) and also Monnet et al. (2022, 2023), that it belongs to a game of global monetary hegemony, that to have the largest part of the rest of the world holding its reserves in a given leading currency (71% to 60% for the US dollar from 2000 to 2021, and around 21% for the Euro during the same period, 3% for the Chinese renminbi).

The Compte d'Opérations, operating through daily transactions between African Central Banks in the Franc Zone and the French Treasury¹³, emerges as one of the essential instruments that contribute to

¹⁰ Actually, the risk of non-diversification of international treasury bonds holds by African central banks of the Franc Zone.

¹¹ Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes...1955-1975, 'Note confidentielle N°16989W/Paris/ 8 Juin 1968, du Directeur Général de la BCEAO à l'attention de M. Theron, Comptes en devises de la BCEAO', (ABF, 1466200601/167).

¹² The BCEAO Governor from 1962 until February 10, 1975, where the first African Governor of the institution got appointed, was officially titled 'Director General - Directeur Général de la BCEAO'

¹³ The daily data of the different Compte d'Opérations in the Franc Zone almost as FX data, are available at the French Treasury, 'Central Accounting Agency of the Treasury-Agence Comptable Centrale du Trésor (ACCT)' but not accessible under France national heritage code. French Treasury archives : 'Direction du Trésor, Intérêts trimestriels de la BCEAO, taux d'intérêts des banques centrales aux avoirs en compte d'opération : correspondance, tableaux' 1974-1985, B-0072818/1.

France's position, and by extension, the Euro Zone, in the ongoing global debate on monetary reserves hegemony. However, an important question arises concerning the cost and the actual counterpart in data truth for the other African participants within the Franc Zone system.

Camdessus' IMF assertion in 1991 regarding the Franc Zone and its *Compte d'Opérations* mechanism as *"the most prominent solidarity example in the modern world of an exchange arrangement"* may have found historical support in studies by Dieterlen (1954) and James (1956)¹⁴, who estimated the cost of the zone for France in 1955 (341 billion French franc, excluding military spending, and being 9% of the country budget back then). However, this perspective appears to be more applicable to the colonial era and has sparked controversy in contemporary discussions. Olivier Feiertag, President¹⁵ of the Scientific Council of the Mission historique (Historical Mission) of the Banque de France/Eurosystem, in his recent flagship 2020 work *'The Franc Zone from 1945 to nowadays: Escaping Mundell's incompatibility triangle'*, challenged this viewpoint, asserting that (Feiertag, 2020, p.46): *'The Compte d'Opérations is the main device that crystallizes the neocolonial relationship. It is the baseline mechanism of the Franc Zone's functioning and in a way the airlock through which, each national economy of the monetary zone is connected to the rest of the world. This is how this feature is at the heart of the persistence of the colonial link, and somehow perpetuates the regime of colonial exclusivity. It is also a continuation of the policy of imperial withdrawal of the 1930s'*. Thus, the contemporary relevance and implications of the *Compte d'Opérations* are subject to scrutiny and debate, challenging earlier notions of solidarity within the Franc Zone.

Recent events and historical retrospective data analysis provide evidence supporting Feiertag's (2020) perspective. First, the Macron-Ouattara third-generation cooperation agreement, announced jointly for the BCEAO and WAEMU, signifies a radical departure from the historically defended importance of the *'Compte d'Opérations'*, in the Franc Zone's monetary cooperation. The agreement, implemented on December 21, 2019, led to the complete elimination of this crucial mechanism, challenging its traditional role in the context of a conventional hard peg. This decision was made under the pressure of various factors, including aggressive populism and the emergence of the *'ECO'* common currency project within the Economic Community of West African States-ECOWAS (Dufrénot and Sugimoto, 2013), which encompasses the WAEMU countries in the Franc Zone and other big regional non-Francophone (non-Franc Zone) giants such as Nigeria and Ghana. Second, the abolition of the *'Compte d'Opérations'* in WAEMU was accompanied by a compensation payback of over 5 billion euros to the BCEAO, led by the Banque de France. This compensation was possible due to a positive balance-sheet of the BCEAO's *'Compte d'Opérations'*, indicating relative stability for the CFA franc, with zero budgetary intervention of French Treasury in WAEMU to support defending its value in 2019. According to the Senat (2020), over 9 billion euros were present in the BCEAO's *'Compte d'Opérations'* at the French Treasury by the end of 2019, constituting approximately 61.22% of the Bank's reserves involved. This amount was well above the minimum 50% requirement established since 2005. Third, historical data on the *'Compte d'Opérations'* balances in African Central Banks of the Franc Zone align with the second argument. Figures reveal an overall yearly positive balance-sheet for the account during the period when the minimum requirement was 100% reserves (1956-1973). Similarly, for the more recent period from 2010 to 2019, characterized by a 50% minimum reserves requirement for BCEAO and BEAC, and 65% for Comoros, the positive balance-sheet trend continues. These developments suggest that the *'Compte d'Opérations'* played a less critical role than previously thought, challenging its historical significance and shedding light on the evolving dynamics within the Franc Zone system.

¹⁴ Report paper on the work of Pierre Dieterlen on *'France Monetary Evolution from 1948 to 1952'*.

¹⁵ Olivier Feiertag is indeed Co-Chair/President of the Scientific Council/Board of the *'Mission historique (Historical Mission)'* of the Banque de France-Eurosystem, together with Michel Margairaz.

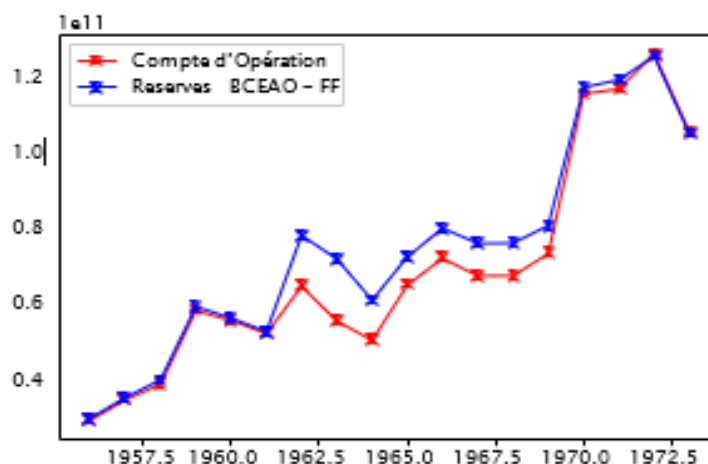
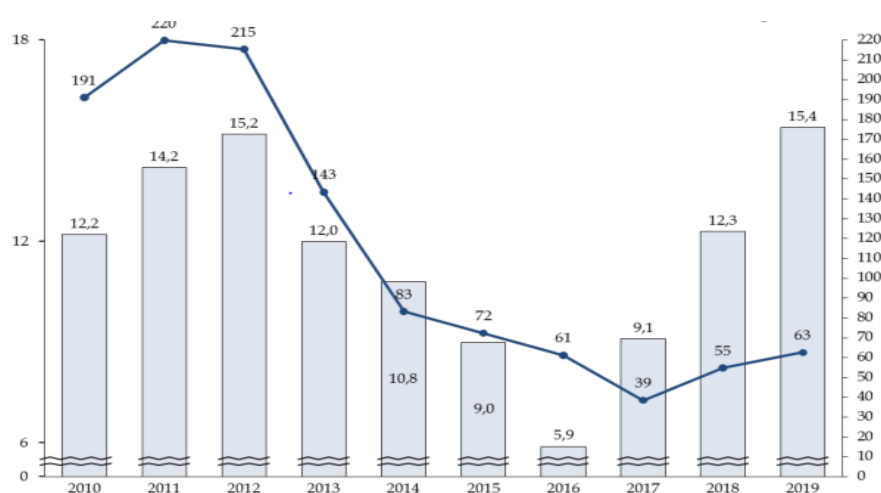


Figure 1 : BCEAO's Compte d'Opération and Total Reserves in French franc, 1956-1973 (Source : Data from Franc Zone Reports, Banque de France).



*Left axe- CO in billions of euro and & right axe CO pay-offs in millions of euros.

Figure 2: Combined Compte d'Opérations of the Franc Zone's African Central Banks, with payoffs since 2010

(Source : Extract from The Senat (2020), Data from 'Commission des finances, d'après le compte général de l'État et les notes d'exécution budgétaire de la Cour des comptes sur le compte d'opération « Gestion de la dette et de la trésorerie de l'État » pour les années 2010 à 2019')

Fourth, as mentioned by the French Senat (2020), it is highlighted that: *'the deposits in the 'Compte d'Opérations' mechanism are not directly utilized by the Treasury to service the French public debt. However, the volume of these deposits enables the State to reduce its reliance on borrowing to cover financing needs'*. When considered in conjunction with the validity of the previous arguments, this implies that the 'Compte d'Opérations' functions as a form of international quasi-fiscal operation for the African Central Banks in the Franc Zone. Indirectly, it contributes in some respects to leveraging public debt, not of their own governments but that of France. This argument gains even more significance when examining the circuit of African reserves deposited in the 'Compte d'Opérations,' particularly in terms of investments and the yields drawn by the French Treasury on international financial markets through the corresponding Foreign Currency Account at the Banque de France. However, the details of these operations remain pretty much unclear. The statutes in force for Central Banks of the Franc Zone in the 1980s (e.g., BEAC's Article 13) specify that it is the Banque de France which conducts, on their behalf, the operations of purchasing and selling foreign currencies, and keeps these Central Banks informed quarterly in terms of statistics¹⁶, just previously as discussed with the 1968 archive note.

¹⁶ Banque de France archives (ABF) : 'Fonctions et obligations : Recueil des textes constitutifs, dispositions organiques, règles de procédure et de fonctionnement (1972-1985). 1988' (ABF, 1466200601/211)

5. Was the 1994 devaluation technically really needed in the CFA Franc Zone?

5.1. The Banque de France's 'CERDI¹⁷ and the Guillaumont's' report-1989

The devaluation of the CFA franc was in fact an old debate that has been on the horizon since the late 1960s and all through the 1970s. The closure of the Paris stock market in May 1968, triggered by speculative attacks on the French franc following *the events of May 1968*¹⁸, which marked the apogee of the 'Trentes Glorieuses', brought monetary concerns about the coherence of the Franc Zone to the forefront. The early 1980s marked a resurgence of this previous debate on the devaluation of CFA Franc, fueled by budgetary difficulties prevailing in African countries of the Franc Zone. These difficulties included unpaid public wages, inflationary dynamics, political and social instabilities, and overall balance of payments imbalances induced by heavy reliance on IMF facilities by the 'Banque des Etats de l'Afrique de l'Ouest-Central Bank of West African States'-BCEAO and the Banque des Etats de l'Afrique Centrale (*Bank of Central African States*) BEAC in the 1970s¹⁹. The IMF facilities, granted to national treasuries, aggravated the external position of the Banks of the two issuing zones, especially in the West African Monetary Union (WAMU). The problems faced by the African participants in the Franc Zone during this period are exemplified by the first debtor Compte d'Opérations at the French Treasury in 1980 (Guillaumont and Guillaumont, 1989, see appendix). These challenges triggered structural adjustment programs and liberalization policies throughout the 1980s, implemented by the World Bank and the IMF in these countries. However, these programs were of mitigated results (Oxfam, 1993; Mosley et al., 1995; Stiglitz 1998a, 1998b; Stein and Nissanke, 1999, some of the main criticisms), with varying magnitudes of impact within the Franc Zone, notably more pronounced in countries such as Côte d'Ivoire (Ivory Coast).

The succession of speculative attacks on the French franc from March 1986²⁰ onwards, amidst a broader destabilization dynamic of the European Monetary System (EMS) due to coordinated intervention attempts by developed countries' Central Banks in the 1980s (Europe and Japan) against the rise of the dollar (Feiertag, 2013), played a significant role in weakening the French currency (French franc), already devalued on April 6-1986. This situation brought the question of the CFA franc devaluation back to the forefront in Paris during Michel Camdessus' tenure as Governor of the Banque de France. Camdessus, who later assumed the management of the International Monetary Fund (IMF) from May 1987, was a strong proponent of the CFA franc devaluation, somehow as an integral part of the process of re-enhancing French franc credibility on European and international markets. After Camdessus' departure, Jacques de Larosière, his compatriot and former Director of the French Treasury (1974-1978), took over the governance of the Banque de France. De Larosière, who had also served as the Managing Director of the IMF, emphasized '*the significance of central bank reserves but acknowledged their limitations compared to the volume of transactions on the markets*' (Feiertag, 2013).

¹⁷ CERDI is the 'Centre d'Etudes et de Recherches en Développement International', a French research centre on International Development established in 1976 first as a joint unit between the French National Center for Scientific Research (CNRS), and a French University (Clermont Auvergne), but also including today the French National Institute for Sustainable Development (IRD). The CERDI works regularly with French government bodies, including the Banque de France. <https://cerdi.uca.fr/english-version/about-us/#/admin>

¹⁸ The events of May 1968, or more briefly May 68, embody a period during which student protests took place in France, as well as general and wildcat strikes. The Parisian student revolt overtook the working class and practically all categories of the population throughout the country, to constitute the most important social movement of the 20th century in France. Negotiation of Grenelle agreements (dissolution of the National Assembly, referendum on the reform of the Senate and regionalization) which record a 35% increase in the minimum wage ended the protests.

¹⁹ Banque de France archives (ABF): 'La Zone Franc, les institutions de Bretton Woods et la conditionnalité, étude du CERDI', 1958-1973, (ABF, 1466200601/13).

²⁰ Various dates follow in this decade, including another monetary realignment on January 11, 1987 of the currencies of the EMS under markets pressure, the signature on September 13, 1987 of the Nyborg agreements for the strengthening of mutual cooperation within the EMS, the global stock market crash of October 19, 1987 from the Wall Street, the set up in April 1988 of the Delors Committee on the economic and monetary unification of Europe, and the adoption of its conclusions by the Heads of State in Madrid in June 1989.

The May 1989 CERDI report, authored by the Guillaumont (Patrick and Sylviane)²¹, serves as the critical main study commissioned by the Banque de France, particularly by the 'Secrétariat of the General Council and the Council for Monetary Policy -*Secrétariat du Conseil Général et du Conseil de la Politique Monétaire*-. The report addresses the question of the relevance of devaluing the CFA franc in an uncertain economic environment. The key finding of the report is that: '*the analysis of the relative evolutions of prices in African countries in the Franc Zone and elsewhere does not reveal price distortions of the magnitude experienced by other African countries forced to devalue.*' This clear and technical position by CERDI and the Guillaumont and so the Banque de France, is underlined by the fact that arguments supporting the devaluation of the CFA franc in the debates at that time specifically pointed to the case of Côte d'Ivoire, which was experiencing more severe socio-economic destabilization²². However, the situation of Côte d'Ivoire was not of the same magnitude in other African countries in the West African Monetary Union (WAMU), and the Franc Zone in general. The 1989 debate on the CFA franc devaluation was influenced by two fundamental factors. First, there was France's need for immediate solutions to its European currency credibility problem, arising from the hegemonic pressure of the U.S. dollar on international exchange markets. Second, there was an acknowledgment of the economic incoherence within the post-colonial African monetary zones constituting the Franc Zone. These currency areas were not economically integrated and lacked optimality, as per Mundellian logic. An IMF report from the same period supported this view, indicating the non-optimality of the two African regional currency unions in the Franc Zone (WAMU and CEMAC zones). It emphasized that international competitiveness benefits, in terms of discipline, credibility, and stability, were only realized when France was considered as an integrated part of the system (IMF, 1991, archival reference).

In 1989, despite the discussions surrounding the devaluation of the CFA franc, the adoption of the conclusions of the Delors Committee in June 1989 by the European Heads of State in Madrid, along with a temporary easing of tensions on the foreign exchange markets, led to a shift in the prevailing strategy. The Delors Committee was focused on the economic and monetary unification of Europe. This change in circumstances caused the conclusions of the Guillaumont report (representing the position of the Banque de France) to prevail, resulting in the abandonment of the purely political strategy of devaluing the CFA franc. Following the fall of the Berlin Wall on November 9, 1989, the chosen solution for fostering economic recovery in the African countries participating in the Franc Zone, involved reinforcing the structural adjustment policies of the Bretton Woods institutions. This period also witnessed an intensification of liberalization policies, including widespread privatization and political shifts from socialist and authoritarian regimes to 'democracy'. Additionally, Camdessus' IMF maintained firm convictions regarding the misalignment of the CFA franc exchange rates, leading to a tightening of the Fund's conditionality for the countries within the Franc Zone, with numerous Structural Adjustment Facilities (SAF) additional financing requests simply put on standby. This historical context reveals a divergence of positions between the De Larosière administration of the Banque de France and the Camdessus' IMF administration regarding the question of CFA franc overvaluation within the Franc Zone.

²¹ See Appendix 'Archival sources of the Banque de France for full reference.

²² But which was also the straight consequence of structural adjustment (failure) in the short/medium term.

5.2. The 1992 failed attempt: An inclusive French Left-wing Government Approach ²³ (Prime Minister Bérégovoy)

In the early summer of 1992, the Banque de France became increasingly concerned about the mounting speculative attacks against the French franc on the Paris market. In response to this, France mobilized its economic and monetary forces both nationally and internationally to defend the currency's credibility. And in this perspective, a major operation in scope on the African partakers of the Franc Zone side, is the devaluation of the CFA francs (both in WAMU and CEMAC) that surfaced back as to be quickly and sharply executed. An appreciation of the French franc in the Franc Zone should be indeed a strong signal for backing its credibility on international markets, especially considering the intermediating role of the IMF, and also with the direct gain of 50% (for 50% CFA devaluation) of the international reserves from African Central Banks' 'Comptes d'Opérations'. Amidst the market pressures within the European Monetary System (EMS) in July 1992, a crucial meeting was held on Monday, July 27, 1992, at Matignon. Chaired by Prime Minister Bérégovoy, the meeting included key figures such as French Treasury Director Mr. Trichet, Banque de France Governor Mr. Jacques De Larosière, and Minister of Economy and Finance Mr. Sapin. During this meeting, a decision was made to implement a rapid timetable for the devaluation of the CFA franc, which was scheduled to take place within four days, on July 31, 1992.

In the context of the impending CFA franc devaluation in July 1992, the Managing Director of the IMF, Michel Camdessus, who was already in favor of the devaluation, was tasked by the French Government (with authorization from the French Prime Minister) to hold a meeting in Africa. This meeting took place in Dakar on July 28, 1992, and its purpose was to engage with the African Heads of State belonging to the Franc Zone. Given the requirement for a common agreement amongst all African Heads of States within each issuance zone before proceeding with a devaluation, this diplomatic and political maneuvering aimed to garner support from those who were still unaligned with the earlier Paris-planned operation, as the political sovereignty of the States involved made it mandatory to secure, a unanimous agreement of all African Head of States for the devaluation to proceed.

It is crucial to emphasize that in the decision-making process regarding the CFA franc devaluation in July 1992, the role of the African Central Banks BCEAO and BEAC was purely executory. The process was initiated by a phone call from Jean-Claude Trichet, Director of the French Treasury, to Alassane Ouattara, *who held the positions of both Governor of the BCEAO and Prime Minister of Côte d'Ivoire at that time (see Appendix D)*. Ouattara, a straight collaborator of Camdessus from the IMF, played a key role in implementing the decision. The new monetary policy direction, including adjustments to interest rates, was swiftly executed across the African countries of the Franc Zone in alignment with the French vision. This raises questions about the Rogoffan autonomy and independence of the African Central Banks in the Franc Zone, particularly in formulating and implementing their own monetary policies, as also discussed Kako Nubukpo in the recent collective book on French Colonialism by Singaravélou et al. (2023). The episode also highlights a concrete failure instance where, the principle of guaranteed unlimited convertibility of the CFA Franc by the French Treasury, as outlined in the successive monetary cooperation agreements and Compte d'Opérations conventions, faced serious challenges and limitations.

In the events leading to the CFA franc devaluation idea in July 1992, the strategy employed by the Banque de France, under the guidance of Governor Jacques de Larosière, involved activating exchange controls over transactions originating from the Franc Zone. This included blocking several transfers of millions of French francs from the zone on July 30, 1992. Additionally, there was a plan to shake-off the different African Central Banks' 'Compte d'Opérations (CO)' at the French Treasury in Paris. Such

²³ Actually, it is more like a semi-inclusive approach. Banque de France archives (ABF): 'Minutes from the Governor Office, 'Meeting at Matignon on the CFA franc, chaired by Mr. Bérégovoy, Prime Minister, Monday 27 July 1992', (ABF, 1035200601/AR1).

move aimed to some French franc's exchange risks sharing with African States in the Franc Zone by implementing substantial anticipated CO debits, in a context where no domestic related issues were to be noted in these countries on the occasion. Simultaneously, the French Treasury refused to disburse the potentially necessary 7 to 8 billion French francs to support the maintenance of the fixed parity of the CFA franc with the French franc in July 1992. This decision, cumulatively being a departure from the foundational principle of the monetary cooperation agreements, exposes the notion that the 'Compte d'Opérations,' whilst theoretically a positive cooperation tool, remains, in practice, an instrument of control and crisis times' adjustment for France. And such dynamic often operates to the detriment of African States in the Franc Zone.

The Paris-planned CFA franc devaluation scheduled for July 31, 1992, ultimately ended in failure for France. Albeit the diplomatic efforts led by Camdessus and his network, which included Ouattara and Côte d'Ivoire's President Houphouët-Boigny, the African Heads of State of the Franc Zone did not unanimously agree to the devaluation. Surprisingly, the final meeting in Paris involving four main African Heads of State (Houphouët-Boigny, Diouf of Senegal, Bongo of Gabon, and Compaoré of Burkina-Faso) and French President Mitterrand on the morning of July 31, 1992 (at 10:15 am and for 55 minutes), resulted in the unexpected announcement right after by President Compaoré: *'there will be no devaluation of the CFA franc.'* The main reason for this outcome was the negative position of Senegal and its President Diouf, who had already communicated their stance to Trichet and De Larosière on July 30, 1992. Following this development, Jacques De Larosière, Governor of the Banque de France, commented that: *'The episode is therefore closed for the moment. It appears that Mr. Camdessus, who had started this whole operation, had overestimated the influence of Mr. Houphouët-Boigny (who was bedridden, did not even attend the meeting of Heads of state in Dakar), and - underestimated the depth of the divergent interests of the various Heads of State on this issue. It is now a question of drawing lessons from a wrongly engaged affair, and to determine who will foot the bill for Côte d'Ivoire.'*

5.3. The determining events of 1993 : An Exclusive French Right-Wing Government Approach (Prime Minister Edouard Balladur and the 'Balladur doctrine')

With the EMS Black Wednesday of September 16, 1992, which signaled the start of the aggressive phase of the 1992-93 EMS crisis marked by resurgence of more intense speculative attacks on European currencies in general (such as the British pound sterling, the Italian lira, and the Spanish peseta) and the French franc in particular, recourse to the CFA franc devaluation, a firm conviction of the Camdessus-led IMF, reemerged at the forefront of discussions in Paris, despite the recent setback just a month and a half earlier.

If the decline in credibility of European monetary integration stemming from political issues (such as the Danish 'No' to the Maastricht Treaty on June 2, 1992), economic challenges (including an overvalued pound sterling, excessive Italian debt and high deficits), and the polarization of the dollar-deutschemark (Einhgreen and Naef, 2020, 2021, 2022) was the root cause of the crisis, the defense of the French franc in the summer of 1992 incurred a cost of 30 billion dollars for the Banque de France through market interventions, accompanied by a coordinated increase in interest rates with the German Bundesbank.

Despite a general easing of market tensions in the first half of 1993, characterized by the Banque de France replenishing half of its disbursed reserves in April (amounting to \$15 billion), a more severe disturbance unfolded on the Paris market on July 8, 1993, delivering a fatal blow to the French franc. Unlike previous instances, these new tensions were not attributed to a decline in traditional fundamentals such as inflation,

public deficit, or external balance. Instead, they were fueled by lingering concerns about the sustainability of the policies pursued by Paris and the Elysée, given the worsening employment situation (with unemployment reaching a high of 11.5%, and the utilization of production capacity hitting historically low levels). In response to the crisis, Paris urgently dispatched its crisis task force, which included the then Minister of Economy and Finance Alphandéry, his Cabinet Director Noyer, the Director of the Treasury Trichet, and the Governor of the Banque de France De Larosière, to Munich for an emergency meeting on July 22 and 23, 1993. The German team included the Presidents of the Bundesbank (Schlesinger and Tietmeyer) and the Federal Minister of Finance (Waigel)²⁴.

The situation for France and the French franc was extremely critical, with the Banque de France intervening to the tune of US\$12 billion on Thursday, July 22, 1993, alone, and a total intervention of \$23 billion since July 8, 1993. One can vividly imagine the chaos unfolding, reminiscent of a parallel scenario highlighted by Eichengreen and Naef (2022, p.8), i.e. less than a year prior, the Bank of England had expended US\$ 22.6 billion in reserves on the 'Black Wednesday' (September 16, 1993), intervening to uphold the value of the British pound sterling against heavy aggressions. Despite these efforts, the task proved futile, ultimately resulting in the pound and Britain being hence compelled by market forces to exit the common European monetary project -*the European Exchange Rate Mechanism (ERM)*-, as to allow the pound to depreciate. The objective of the French team at the Munich meeting of July 22-23, 1993, was crucial, given that the Banque de France's reserves were already depleted and in the negative (-2.4 billion US dollars as of this date). The task was to secure the full support of the Bundesbank for prompt and perfectly coordinated monetary decisions to manage this new crisis, similar to the situation in the summer of 1992. The argument presented emphasized a significant risk not only to the French franc and France, but to the entire EMS if swift and appropriate collective actions were not taken. In this regard, a proposal by the French task force was put forward on July 23, 1993, for a joint note suggesting a 1% increase in the Lombard²⁵ rate and the overnight rates in France by the Banque de France, accompanied by a 1% and 25 cents decrease, respectively, in the Lombard rate and market rates for Germany by the Bundesbank. However, the German side, albeit having already provided 9 billion Deutschmarks in aid to the Banque de France and committing to a new 10 billion Deutschmarks line for 'solidarity', strongly objected to the occasion's French request for coordinated action on rates. They argued that the current situation in France was not necessarily symmetrical and highlighted the delicate fragility of the Deutschmark against the US dollar, urging caution. Ultimately, the Bundesbank agreed to submit the French request to its Executive Board, but only for the 25-cents cut in the Lombard rates, and the decision was scheduled for the following Thursday, July 29, 1993 (as its Board met only on Thursdays). Additionally, they stated that there would be no action on market rates due to the exhaustion of margins, which had already dropped 64 points in German short-term rates on July 1, 1993, from 7.8% to 7.16%.

In conclusion, the President of the Bundesbank proposed that the Banque de France seek support from other EMS Central Banks and the Bank for International Settlements (BIS). Additionally, there was a suggestion to seriously contemplate the devaluation of the French franc (as the United Kingdom and the Bank of England technically did earlier in September 1993), stressing that despite the sound fundamentals, devaluing the currency would send a more robust long-term signal to the markets. This approach was viewed as more effective than short-term actions on interest rates and market interventions, which, in the face of ongoing socio-political issues in France, might not be convincing enough for aggressive speculators.

²⁴ Banque de France archives (ABF): 'Minutes of the Banque de France-Bundesbank Munich emergency meeting of July 22-23, 1993-*Secrétariat of the General Council and the Council for Monetary Policy -Secrétariat du Conseil Général et du Conseil de la Politique Monétaire*', *The Governor Office/Le Gouverneur*, (ABF, 1035200601/AR1).

²⁵ The Lombard rate is the interest rate charged by central banks when extending very short-term loans backed by collateral to commercial banks.

This episode underscores the reality of a truly independent Central Bank, exemplified by the Bundesbank, even within the complex framework of multilateral monetary cooperation. The Bundesbank acknowledged the urgency of the crisis faced by its French counterpart, providing feasible possibilities aligned with its current cash flow. However, it steadfastly resisted being swayed by pleas for 'supportive' monetary policy actions or alacrities in timeframes of such actions. The Bundesbank maintained an unwavering commitment to its own lines of action and decision protocols, primarily oriented toward the specific domestic requirements within its own issuance zone.

This stands in stark contrast to the described reality of monetary cooperation in the Franc Zone system between African countries and France. In this context, it is not merely a matter of the Banque de France (or at least not directly), but rather a phone call from the French Treasury Director in Paris dictating monetary policy orientation to a key Governor of the zone (such as Ouattara at the BCEAO in general). This directive is then promptly executed by the African Central Banks involved, including the BCEAO, the BEAC, and the Comoros. Such cooperative game, as revealed by historical evidence, significantly deviates from the principles of Central Banking in conventional macroeconomic theory. It reduces the African Central Banks of the Franc Zone to mere Corresponding Statistical Offices of Paris, rendering them intrinsically illegitimate in the theoretical principles of independence. The key takeaway from this situation is **the existence of a clearly proven asymmetry in global monetary collaborations, as regard to North-North versus North-South cooperations.**

However, as it became apparent that the Franco-German discussions yielded no favorable response from the Bundesbank regarding the French requests, the pressure on the French franc intensified during the week of July 26, 1993. By Wednesday, July 28, the situation had become distinctly a French phenomenon. The confirmation from the Bundesbank, following its customary Board of Directors meeting on Thursday, July 29, 1993, that there would be no action on its Lombard rates, transformed what had until then been a primarily French crisis into a European one. In response, the Bundesbank conducted market interventions, disbursing approximately 47 billion Deutschmarks on that same Thursday and the following Friday, to support the defense of the French franc (Einchgreen and Naef, 2020, 2021, 2022).

In this chaotic context of the French franc, marking the onset of Autumn 1993, the longstanding debate on the CFA franc devaluation resurfaced as a wildcard option for France to regain favor on the markets. It's worth noting that this operation, involving a 50% devaluation of the CFA francs, would immediately tap into the 'Compte d'Operations'—the corresponding foreign currency account at the Banque de France and the Exchange Stabilization Fund (FSC, '*Fonds de Stabilisation des Changes*'). This would indeed result in a 50% loss of French franc reserves for the African Central Banks of the Franc Zone, but it would serve to replenish some of the reserves of the Banque de France, providing so support for its market interventions to defend the French franc value. In a way, it also serves as a long-term psychological signal to the markets, indicating a robust resurgence of the French franc. Simultaneously, **a comprehensive change in exchange regulations within the Franc Zone**, involving the imposition of **full exchange controls** on transactions outside the Franc Zone to the African member countries, **had already been implemented on August 2, 1993** (which coincided with the historical worst day of aggressions on the French franc). However, the official announcement of this change was surprisingly delayed until the autumn, specifically on October 20, 1993 to appear in the International Monetary Fund confidential proceedings (IMF, 1993b, archival references). In the face of these challenges, the urgency for decisive and effective action was evident, framed as the defense of the nation's paramount interest. Nevertheless, the route of French franc devaluation suggested by the Bundesbank was not embraced by France and the Banque de France. So then unsurprisingly, as of September 1993, Prime Minister Edouard Balladur declared the “Balladur Doctrine” (Perez, 2022, p.874): *‘the French government signaled a change in its position at a meeting of the Franc Zone in Abidjan in September 1993, that it would provide no further aid via the compte d’opérations/operations account or official transfers until indebted CFA zone*

governments agreed with Bretton woods institutions, especially to IMF loan conditionality' (see also Banque de France, 1994: p.26; Parmentier and Tenconi, 1996, p. 155; Masson and Patillo, 2005, II-p.8).

This is where the historical significance of another report by CERDI and the Guillaumont(s) on behalf of the Banque de France in the fall of 1993, titled "*The Franc Zone: Too Soon Too Late (in French)?*"²⁶, comes into view. In this report, the authors subtly revisit the conclusions of their significant earlier report from May 1989. In that prior assessment, they highlighted the inadequacy of a CFA franc devaluation, given the distinct economic context in the African countries of the Franc Zone compared to France. The authors emphasized that there were no technical signs still of serious overvaluation of the currencies at stake. In the face of the ongoing crisis in the Franc Zone, if not specifically of the French franc, the report maintains that the non-devaluation of the CFA francs remains the sustainable long-term solution. It cautions that CFA franc devaluation, albeit a sort of short-term solution, carries serious risks for the long run. The success of such a measure would hinge on its ability to preserve the essential assets of the Franc Zone, including stability in prices and exchange rates, homogeneity, and convertibility of the CFA francs, along with the integrity of its monetary unions. The authors underscore that the strategy chosen in this case, whether devaluation or non-devaluation, would ultimately stand as a political choice made by France and its African partners. Success in this endeavour requires substantive agreement and overall synergy amongst the involved parties, including African states, France, and international institutions especially the International Monetary Fund (IMF), in implementing the necessary measures. However, they also cautioned against the heavy risk of making decisions based on sentimentality, whether it be to preserve a vestige of the empire or to punish perceived failures, and where on the contrary, others would instead either simply reject this vestige, or consider parity as a right.

5.4. Autumn 1993 and the January 11- 1994 CFA francs devaluation

As Jacques De Larosière, Governor of the Banque de France, stated in 1992, France have learned the lessons from the failure of July 1992. However, the same Heads of State were still in office in Africa, making an overall agreement for a devaluation of the CFA francs, as suggested by the autumn 1993 Guillaumont(s)' report, clearly impossible. The inevitable decline of the French franc was imminent, and a currency devaluation was deemed absolutely necessary to send a long-term psychological signal to the markets, as recommended by the Bundesbank. Alternatively, there was the option of utilizing the regulatory control mechanism offered by the Compte d'Opérations to address risk-sharing toward the African countries of the Franc Zone, a suggestion De Larosière had previously made in the case of exchange rate losses risks of the French franc during the failed attempt in July 1992. In this context, the CFA franc devaluation gained traction, with support from Camdessus and the IMF on one side, and the African Central Banks (BCEAO, BEAC, and Comoros), serving essentially as Statistical Correspondent Offices of Paris, on the other side, with the Governor and Prime Minister Ouattara a straight collaborator/executor of Camdessus and the IMF. Despite the Guillaumont(s)' suggestion of a trio agreement, historical events indicated the undeniable dominance of the France-IMF duo, quickly sidelining any multilateral approach. This exclusive approach of the French Prime Minister (PM) Balladur's Right-wing Government in 1993/94, contrasting with the inclusivity of the PM Bérégovoy's Left-wing one, showcased the historical political bipolarity in France, as emphasized by Piketty and Cagé (2023). The dynamics at play highlighted the complexities of political decision-making process, where historical legacies and ideological differences shaped the handling of a critical economic situation.

²⁶ Guillaumont, P., and S. Guillaumont-Jeanneney, 1993. 'La Zone Franc : Si tôt trop tard ?', Confidential report of the CERDI, Etudes et Documents, Autumn/Fall 1993, Banque de France archives (ABF, 'Zone Franc, fonctionnement et évolution : études, extraits de presse, notes, La Zone Franc', 1954-1997, 1466200601/11).

Jean-Claude Trichet transitioned from the French Treasury to become the Governor of the Banque de France starting from September 1, 1993, succeeding Jacques De Larosière in that role. In turn, Noyer assumed Trichet's position at the Treasury Department. Meanwhile, at the BCEAO, significant changes and new decisions were sharply implemented between late autumn/fall 1993 and early winter 1994, as documented by the BCEAO (2019). These personnel and organizational shifts likely played a crucial role in shaping the responses to the economic challenges and final policy decisions during that period.

-On October 1, 1993, BCEAO underwent key transformations. The restructuring included introducing three rates—money market, repo, and discount rates—to enhance monetary policy precision. Simultaneously, banking conditions were liberalized based on decisions from December 15 and 16, 1992 meetings by the WAMU Council of Ministers and the BCEAO Board of Directors, aiming to reduce restrictions in the financial sector. Additionally, the compulsory reserve system, enforced on the same date provided for in article 28 of the BCEAO's statutes, mandated financial institutions to reserve a specified percentage of their deposits, contributing to overall monetary stability. These measures collectively reflected BCEAO's efforts to adapt to economic changes and fortify monetary practices within the future West African 'Economic' and Monetary Union (WAEMU).

-On November 12, 1993, under the directive of BCEAO Governor Ouattara, a research unit was established within the Central Directorate of Studies and Forecasting. This unit was tasked with analyzing monetary policy and broader macroeconomic policies of the Union's countries. Its mandate also extended to conducting studies on various subjects aimed at enhancing the effectiveness of the actions taken by the issuing institution. This development can be seen as a formal acknowledgment of BCEAO's role akin to a Paris Statistical Office, as previously mentioned.

-On November 22, 1993, Charles Konan Banny, who had been Acting Governor since November 7, 1990, was officially appointed as the Governor of the BCEAO. This appointment would take effect on January 1, 1994. Notably, Banny had assumed the role of Acting Governor when Ouattara, the previous Governor, was appointed Prime Minister of Côte d'Ivoire on November 7, 1990. Ouattara held both positions until March 31, 1994, following the devaluation, when the official handover to the new Governor, Charles Konan Banny, took place. Ouattara had a history of significant roles within financial institutions. From January 1983 to October 1984, he served as Vice-Governor of the BCEAO whilst Michel Camdessus was still Director of the Treasury Department in France. Subsequently, from November 1984 to October 1988, Ouattara held the position of Director of the IMF African Department, initially when Camdessus was Governor of the Banque de France. Later, Ouattara became the Special Advisor in Washington D.C. to the IMF Managing Director from May 1987, at the time when Camdessus assumed the leadership of the Fund. In October 1988, Ouattara was invested as Governor of the BCEAO, a position he held until after the devaluation of January 11, 1994. After the devaluation, he became Honorary Governor of the BCEAO and officially handed over the position to Charles Konan Banny two months later, on 31 March 1994.

-On December 15, 1993, Daniel Kablan Duncan, who held the position of Central Director of Assets and Information Technology at the BCEAO, was appointed as the Prime Minister of Côte d'Ivoire. This appointment marked his assumption of the role, succeeding Prime Minister-BCEAO Governor Ouattara.

-On December 7, 1993, the WAMU Council of Ministers adopted a draft framework regulation governing mutual and cooperative savings and loan institutions. The WAMU Council of Ministers, on the proposal of the BCEAO, decides to suspend, effective on December 20, 1993, the repurchase of BCEAO bills held in the BEAC zone, and to introduce a maximum commission of 2% (including all taxes) for services rendered on manual exchange operations, carried out by WAMU banks between BCEAO bills and French franc bills. This marked a break-up with the principle of unlimited free convertibility of currencies within the Franc Zone, the ultimate stage all the way to the CFA francs devaluation.

As the autumn of 1993 gave way to winter, a pivotal moment occurred on January 10, 1994, with the signing of agreements on new 'Economic' and Monetary Unions in West and Central Africa (WAEMU and CEMAC). These agreements were the result of a series of discussions held in Paris. Then, on the evening of the following day, January 11, 1994, a historic decision was announced: the parity of the CFA franc in relation to the French franc would undergo a change. This announcement marked a significant event in the economic and monetary landscape of West and Central Africa, signaling a transformative shift in the relationship between the CFA franc and the French franc.

The choice of January 11, 1994, for the change in the parity of the CFA franc in relation to the French franc may indeed have carried symbolic significance. This date marked the 7th anniversary of the last French franc devaluation on January 11, 1987, which occurred during the tenure of Camdessus at the Banque of France. The 1987 devaluation of the French franc was a tacit adjustment in response to market pressures within the European Monetary System (EMS) against the US dollar (Feiertag, 2013). It is noteworthy that, from 1960 until January 11, 1994, the French franc itself had undergone six devaluations—once in August 1969 and five times in the 1980s. Interestingly, none of these devaluations resulted in a revaluation of the parity of CFA francs against the French franc within the framework of the Franc Zone. The decision in 1994, therefore, represented a unique and significant departure from the historical pattern, reflecting a fundamental shift in the economic and monetary relationship between the CFA franc and the French franc.

Also, recent discussions with Denis Cogneau early August 2023 at the Paris School of Economics (PSE, Paris), enlightened us on an apparently widely circulated myth, suggesting that the choice of January 1994 date for the CFA franc devaluation was made to honor a promise made by the French Left-wing President François Mitterrand to the Ivorian President Félix Houphouët-Boigny at the time. Allegedly, Mitterrand had pledged to authorize the devaluation of the CFA franc only after Houphouët-Boigny's passing. The Ivorian leader, a major French politician during the colonial era (*French parliamentarian (1945-1955), member of French governments (1956-1961, State Minister of France, Minister of Public health and of the population of France, Minister delegate to the Presidency of the Council of France)*), and later a prominent African statesman who served as President of Côte d'Ivoire from 1960 until his death in 1993 (post-independence era), was often referred to as 'The Frenchman of Africa—*L'homme de la France en Afrique*—'. President Houphouët-Boigny seemingly reportedly opposed the idea of devaluing the CFA franc and had been dealing with health issues for several years preceding the 1994 devaluation. Governor Jacques de Larosière mentioned that *during the Dakar meeting of July 28, 1992, Mr. Houphouët-Boigny, who was bedridden at the time, did not attend*, emphasizing the challenges he faced (see section 5.2, Failed attempt of July 1992). Although there is a lack of scientific or archival evidence to substantiate such myth, it appears that the promise was somehow kept. Houphouët-Boigny passed away on December 7, 1993, the same day as the ultimate announcement of total exchange controls over the Franc Zone, signaling the impending devaluation of the CFA franc to the markets. The devaluation itself took place on January 11, 1994, just a month after his death.

The data from the BCEAO and BEAC 'Comptes-d'Operations' for the years surrounding the devaluation raised concerns. The BCEAO exhibited a notable shift, moving from a dynamic of 86 million CFA francs at the end of 1992 and 1993 to a spectacular jump to 900 million CFA francs at the end of 1994 and one billion CFA francs at the end of 1995. This represented a dramatic change in the financial dynamics of the BCEAO during the devaluation period. In comparison, the BEAC experienced a shift from a negative trend to a positive dynamic post-devaluation, although the magnitude of this change was less worrisome. It's crucial to acknowledge that the annual data of the 'Compte d'Opérations,' as previously discussed, offer limited insight due to their inherent limitations as accounts subject to numerous daily transactions, particularly in a volatile foreign exchange market. The concerns raised by these data underscore the

complexity and challenges associated with managing financial operations in the aftermath of significant economic events such as a currency devaluation.

Table 1: BCEAO, BEAC, and BC-Comoros operating account at the French Treasury (1991-1996)

Operating Account	BCEAO	BEAC	BC Comoros
	In millions of CFA francs		Thousands of Comorian francs
31/12/1991	137 865	108 874	6 899 437
31/12/1992	86 005	-8 936	6 823 660
31/12/1993	86 794	-78 610	10 574 538
31/12/1994	900 054	155 671	16 625 984
31/12/1995	1 142 419	157 533	14 946 271
31/12/1996	1 098 547	288 022	18 623 365

Source : Franc Zone reports, Banque de France

6. Some Interviews in Africa

6.1. The Director of the African Center for Monetary Studies in Dakar-CAEM (1993-1996)

Professor Jean-Marie Gankou, then Director of the CAEM (African Center for Monetary Studies in Dakar), disclosed that the CFA franc devaluation on January 11, 1994, came as a real surprise to the center. None of the CAEM's scenarios had anticipated it, as it occurred during a period of economic takeoff for the entire BCEAO zone, when the perverse inflationary and impoverishing effects of the World Bank and IMF's Structural Adjustments of the 1980s were gradually beginning to be readjusted. *It was later in discussions with President Diouf of Senegal that we understood what had happened: 'The IMF's conditionality was on the table, and there was just no bargaining question. President Diouf was vehemently against it, but it was sink or swim, and in any case the BCEAO, BEAC, and the Comoros Central Bank were all already packed-in, with Governor Ouattara playing a leading role'.* These statements were also revealed by President Diouf himself in a public interview to the French media 'France 5', the archives of which we were able to access²⁷.

6.2. The Benin Minister of Trade and Industry in 1994

Benin's former Minister of Trade and Industry at the time of the January 1994 devaluation of the CFA franc, Mr. Fassassi Yacoubou²⁸, also revealed that the Benin government was staunchly opposed to the idea of any devaluation. The studies commissioned by the Benin government and discussed in the Council of Ministers at the time were of all same conclusion: 'No devaluation is a sustainable domestic scenario, there was no stake in this orientation for Benin at least. The findings of these studies seamlessly align with the retrospective analysis of misalignments in the late 1993 within the Franc Zone by Devarajan (1997), as outlined in section 3. Devarajan (1997) identifies a rate of only 3% for Benin (the lowest rate in WAMU), despite the nation having experienced the uniform devaluation of 50% of CFA francs in January 1994. He said: *'The day before President Soglo left for what were normally agreement negotiations, all of us Ministers in the Government at the time had reiterated our negative position on the issue to him in the Council of Ministers, and had agreed that no matter what, he would not sign an agreement to devalue the CFA franc. But I was surprised to hear the news quite suddenly, and the next immediate Council of Ministers on its return, it was all broken that he explained to us that : "Over there,*

²⁷ Available on this link: <https://www.youtube.com/watch?app=desktop&v=z2y03D8J1io>

²⁸ Rodrigue has an adoptive dad-hood (tutorship) link with Mr. Fassassi Yacoubou.

it was no question of choice, the International Monetary Fund and the World Bank were all in play, and it was either I sign or all of us here might never have again salaries paid, and for our Beninese people it would have been a much worse disaster." He also revealed that from that first Council of Ministers post-devaluation, he was assigned a new mission as Minister of Trade: *"I had to go on TV every night to explain to the farmers and producers that the devaluation was quite normal, and was part of a general global strategy of economic recovery of the government in agreement with the IMF and the World Bank, and that even if their debts in inputs are now doubled, they should not in any case increase prices, to avoid inflation that would ruin all the Government and its international partners nice plans. I had to do it, and I did it over several months, and in several national languages, every night."*

7. Empirical evidence

We now run a regression analysis to confront the narrative findings presented in the preceding sections.

7.1. Identification and Specification

We use the narrative evidence from the previous section to deliver an identification strategy of the models.

First, the primary endogenous variable in the models is defined as the French franc exchange rate against the German Deutschmark (FFR_DM). In the context of the EMS 1992-93 currency crisis, exchange rates served as the central policy target, with Germany and the Bundesbank being the benchmark for all other European countries (the ERM anchor country). Simultaneously, the United States and the dollar were the reference points for Germany. This choice is justified, as outlined in the preceding section. Following aggressive speculative attacks on the French franc in July 1993, France promptly dispatched an emergency taskforce to Munich at the Bundesbank to plea solidarity, and coordinated monetary policy and market intervention responses.

Second, the other target endogenous variable is set as the CFA franc exchange rate against the US dollar (CFA_USD, as it perfectly embodies the link with the African partners and captures the dynamic of international speculators perception of France leading role within the Franc Zone system. A solid justification for this selection is rooted in the exchange controls implemented on the CFA franc countries within the Franc Zone on August 2, 1993—the worst historical day of market aggressions on the French franc/Mark rate. Notably, this discrete policy enforcement was disclosed in the IMF annals almost surprisingly three months later, on October 20, 1993 (IMF, 1993b, see archival references). Endogenizing it in the model aligns consistently with the narrative of the Franc Zone's cooperational framework. It is also worth noting that, albeit the hard peg and fixed parity of the CFA franc to the French franc, Dillner (2022) found a somewhat positive impact of the 1994 devaluation on export growth in volume over the following six years, but rather a null effect coupled with some contractions for exports in value measured in US dollar. Additionally, it is important to acknowledge that whilst the daily 'Compte d'Opérations (CO)' balance-sheet would have been a more ideal target regressor here, as this data happens to be inaccessible at the French Treasury Department, the CFA_USD stands out as its pretty good proxy for our modellings. There is also the idea that second generations monetary cooperations agreements' still in force at time of the devalutaion, left some margins at the discretion of African Central Banks in the Franc Zone in their CO rules (the BEAC 75% of reserves and the BCEAO 65%, see section 4). The CFA_USD rate hence intrinsically captures inter-alia, African countries within the Franc Zone and their Central Banks' operations, when considerations are made to Over-The-FrancZone's-Counter (OTFZC) international transactions, as well as potential subscriptions to short-term foreign securities, issued by broad international financial institutions on the unified global money market. In essence, this means even with the conventional hard pegging to the French Franc (and later the Euro), which implies no spread on the foreign exchange market between the CFA franc and the French currency (or the Euro), the CFA franc

still experiences fluctuations against the US dollar and other major global currencies. There are clearly noticeable negotiation margins for foreign exchange market brokers, traders, the BCEAO, and the BEAC in their dealings with the CFA franc on the unified international foreign exchange market. These dynamics are evident in the records of the BCEAO²⁹ and the BEAC³⁰, along with their daily updates on the Purchase (Buy) and Sales (Sell) prices of the CFA franc against the US dollar and other international currencies such as the Japanese Yen, the British pound, the Swiss Franc, the Canadian dollar, the Chinese Yuan (Renminbi), or the United Arab Emirates Dirham, all these featuring some ‘non-zero’ spreads.

Thirdly, the exchange rate proves to be endogenous to most of currency defense variables such as Central Bank interventions and interest rates. These are the variables used by Eichengreen and Naef (2022) together with an Exchange Market Pressure Index (EMP) that we also consider. The exchange market pressure (EMP) on the French franc is given by:

$$EMP = \frac{\Delta e_t - \mu_e}{\sigma_e} - \frac{\Delta r_t - \mu_r}{\sigma_r} - \frac{Int - \mu_{int}}{\sigma_{int}}$$

Δe_t is the change in the French franc exchange rate, Δr_t the differential between the interest rate in France and Germany, and Int is the Banque de France market interventions. μ and σ are means and standard deviations of the respective variables. Pressure (EMP) increases when the exchange rate depreciates, the central bank has to raise its policy interest rate relative to Germany (the ERM anchor country) and/or intervention in support of the currency is extensive (Eichengreen and Naef, 2022). Each constituent of the index is expressed relative to its average to account for different scales and normalized by its standard deviation, to account for different average volatilities (Eichengreen et al., 1995).

Fourth, we proceed to specify the French Franc/DeutscheMark and the CFA franc/dollar exchange rates as rolling endogenous variables, starting by a standard regression (ordinary leastsquares), and then a vector autoregressive —consistent with the methodology by Eichengreen and Naef (2022). Given the inherent timing concerns in policy actions/reactions against speculative attacks, and rational anticipations outlined by Lucas (1976), both by the markets (speculators) and central bankers, lagging the regressors matrix helps account for these considerations in the different models. The past value of the exchange rates plays a crucial role in their contemporaneous levels, aligning with the implications of the Efficient Market Hypothesis (EMH) for the foreign exchange market. Therefore, the lagged exchange rate is also considered as an exogenous variable. The specification of the standard regression model is as follows:

$$(1) \quad Y_t = \beta_0 + \sum_{i=1}^p \beta_i X_{i,t-1} + \gamma Z + \varepsilon_t \quad \text{with} \quad \varepsilon_t \sim N(\rho, \sigma^2)$$

β_0 is a constant, Y_t is the dependent variable successively representing the French Franc/Deutsche Mark exchange rate (FFR_DM) and the CFA franc/US dollar exchange rate (CFA_USD). $X_{i,t-1}$ denotes the lagged regressors, including the rolling dependents, interest rates, specifically the differential between French and German rates (Rate_diff_FRA_GER), Banque de France market interventions on the Deutsche Mark (Int_FRA_DM), and the Exchange Market Pressure on the French franc at the free Paris market (EMP_FRA). Z a matrix of strictly exogenous time-invariant characteristics.

On the other hand, a structural dynamic can be denoted in a VAR identification, even if there is a discussion on the causality between the the French franc/Deutshmark exchange rate (FFR_DM) and the

²⁹ See the BCEAO website and daily updates on Exchange rates (currency prices) for instance. <https://www.bceao.int>

³⁰ See the BEAC website and daily updates on Exchange rates (currency prices) for example. <https://www.beac.int>

CFA franc/US dollar exchange rate (CFA_USD). Indeed, there are expectations that past values of the market defense variables (Banque de France interventions, interest rates, market pressure in Paris) and the CFA_\$ rate affect the contemporaneous French franc/DM, whilst an ongoing shock on the French franc triggers some overall reactions in the right same time. The French franc-Deutshmark exchange rate is then ordered priorly in a structured VAR process perspective, with a specification of the form:

$$(2) \quad FFR_DM_t = f(Y_{t-i}) + \xi_t \quad \text{with} \quad 1 \leq i$$

Y_{t-i} are the past values for all market variables in the system, and ξ_t captures speculative attack shocks. The corresponding VAR to be estimated is given by:

$$(3) \quad Y_t = \sum_{i=1}^p \Phi_i Y_{t-i} + \Phi \lambda_t \quad \text{with} \quad 1 \leq i \leq p.$$

Φ is derived from a change of basis transformation, representing a lower triangular ordered matrix and diagonally unity-normalized, where λ_t a collection of serially uncorrelated mean-centered shocks, and normalized in average volatility. With respect to the identification assumption, the contemporaneous speculative attack shock ξ_t is the first occupant of λ_t .

Now, a fundamental question remains unsolved: the causality check between our two main endogenous variables, the Franc/Mark (FFR_DM) and CFA/US-dollar (CFA_USD) exchange rates. Whilst standard linear-based models (equation (1)-OLS, double stage, and so on) only inform about their potential correlations (under reserve of fit checks) and with an assured covariance non-stationarity bias³¹ (heteroscedasticity), the vector autoregressions in this case can't state on their dual causality, as their high-frequency nature, just like financial conditions indices (FCIs), fails to be Granger robust. This is a pinning point discussed in recent developments in econometric theory (see Dufour and Taamouti, 2010; Dufour et al., 2012). To solve this issue in our empirics, the basic idea is to treat first our endogenous exchange rates (FFR_DM and CFA_USD) accordingly to their high-frequency construction (somehow also the market pressure (EMP) and perhaps the interest rates), by considering a non-linear variance type modeling. This approach helps in establishing their causality by first discussing its closed proxy in high-frequency modeling, i.e., the dynamic second-order moments, comovements, and correlations, specifically using the Varying Conditional Correlations-GARCH class of models (VCC/DCC), particularly interesting in contagion analysis (see Engle 2002; Engle et al. 2006; Bacchiocchi, 2017; Fedderke and Marinkov, 2016; Caporin and McAleer, 2012, 2013; Dossou-Cadja and D'Ecclesia, 2022, 2024). Another way to address the issue is to directly consider a single VARMA-GARCH/VARGARCH specification, which offers to more consistently establish causality in high-frequency VAR. This, by substituting the non-covariance stationary participants with their variance model in the VAR, but then has the drawback of not informing about the real dynamic correlations of the high frequency variables. It also interprets mostly volatility-causalities and not really fundamentals ones (first order causalities). Whilst in our case here, the information on existing moving correlations transmission between the two endogenous is a key potential finding, we are however even more interested by the dynamic behind contained in the model's fundamentals (market pressure in France, interest rates differential between France and Germany, and the Banque de France deutshmark interventions). That said, a VARMA-VARGARCH approach is not appropriate for our empirics, but a DCC-multivariate GARCH-X (see for instance Ketz, 2022) to

³¹ Engle (2002, p.346) called it 'a dramatic evidence of non-stationarity in currency correlations'.

discuss beforehand the exchange rates' dynamic comovements, and then combined with the structured VAR and its impulse functions, is the best modeling analysis framework.

A comprehensive discussion on Engle's (2002) DCC specification and its estimation strategy is made in Dossou-Cadja and D'Eccelsia (2022, 2024).

7.2. *Data*

Our data are primarily from Eichengreen and Naef (2022). We are very grateful to Alain Naef (Banque de France), who shared with us their main database and sources, including all relative extensive details.

- The foreign exchange intervention data are sourced from the Bank of England archives (dealers' reports-C8), providing over 500,000 daily observations spanning 1986–1995 for major European Central Banks, including the Banque de France. Our narrative from the Banque de France archives allows us to emphasize the period from July 8, 1993, to August 2, 1993.
- Exchange rates data for ERM countries and the US are mainly from Global Financial Data (GFD). We have a total of 2608 daily observations for each variable, covering January 1, 1986, to December 29, 1995 (5 days per week). Regarding CFA_USD data, we use the French franc-US dollar data and the fixed parity between CFA and the French franc (50 CFA francs = 1 FF before January 11, 1994, and 100 CFA francs = 1 FF from January 12, 1994, onwards) to construct it, as direct data from the BCEAO and BEAC archives was not available.
- The interest rate data for France are obtained from the Banque de France, while data for Germany are sourced from the Center for Financial Stability's "Historical financial statistics" (2019). We also use interest rates data from the BCEAO and the BEAC.

7.3. *Results*

• **The French franc/Deutschmark (FFR_DM) and CFA franc/dollar (CFA_USD)**

The dynamic of the FFR_DM exchange rate over the period 1986-1995 provides positive evidence supporting the presumption at stake. Initially, it maintained a stable trend until late June 1993, after which it reached a peak and began fluctuating significantly below its long-term tendency. This marked a decline phase with aggressive speculative attacks from July 1993 until mid-October 1993 (the Autumn). From this point, a comeback started, reaching a new peak aligned with the long-run trend on January 18, 1994, exactly one week after the CFA franc devaluation. Subsequently, its fluctuations adhered to the long-run trend for the entire year 1994, indicating the success of the policy: the markets received the CFA franc devaluation signal as a long-term credibility boost for the French franc, resulting in a complete lull of tensions throughout the whole year 1994.

Figure 3, a chart calibrated with double ordinates at the extreme values, reveals a key element: the ERM bands, extended on August 2, 1993, amidst the crisis, were asymptotically set above the extrema of the CFA/dollar exchange rate. The maximum was reached exactly 13 months earlier on September 2, 1992 (amidst the 1992-93 EMS crisis), and the minimum was achieved on February 8, 1994, i.e., less than a month after the CFA franc devaluation. Based on the preceding narrative, this suggests that the CFA_USD rate could have definitely served as a fundamental decision/adjustment

variable for the revision of the ERM bands: the bands were eventually revised to exceed its historical maximum value.

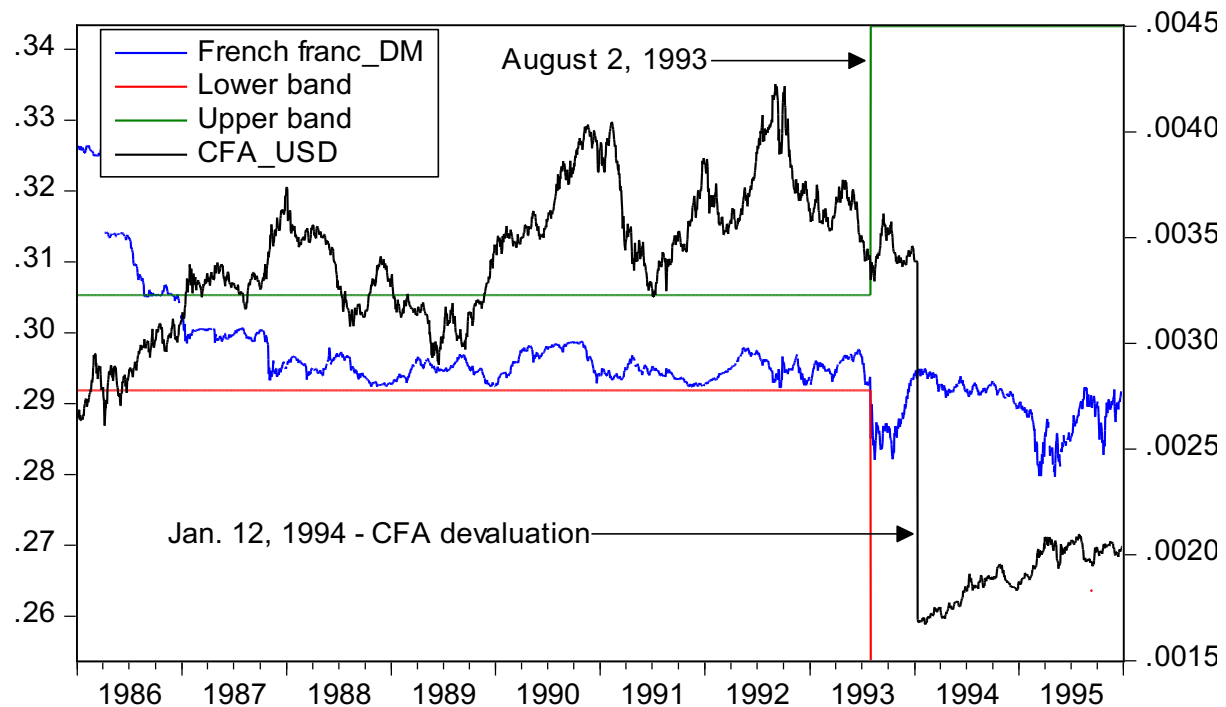


Figure 3. Daily French franc/DM and CFA/dollar exchange rates, 1986-1995.

The widening of the ERM bands on August 2, 1993, from ± 2.25 percent and ± 6 percent to ± 15 percent, appears more like a form of 'European solidarity support to France' suffering at time, heavy currency speculations against the Deutschmark (Garretsen et al., 1998). This policy, announced to the markets by the International Monetary Fund (IMF) on the same day (August 2, 1993), notably in a communication from its Managing Director Camdessus (IMF, 1993a, see archival references), was accompanied by the complete modification of exchange regulations within the Franc Zone system on the same day (establishment of exchange controls over transactions outside the Franc Zone of the African member countries). The official announcement of these changes, however in contrast with the ERM bands widening one, was surprisingly delayed until October 20, 1993 (IMF, 1993b, see archival references). The enlarged ERM bands, along with the Banque de France DM interventions, helped maintain the French franc within a new European jointly accepted 'non-devaluation/non-ERM withdrawal'³² zone for the sake of the common monetary union project, albeit its absolute decline. However, these combined policy actions together with the exchange controls enforced within the Franc Zone (from August 2, 1993) were insufficient to reassure speculators (Banque de France defensive DM interventions continued until mid-December 1993), preventing the French franc from starting a retake-off towards its long-run trend until mid-October 1993. Subsequently, the CFA franc devaluation played a role in this recovery. This analysis is further confirmed when examining the trends for other ERM countries such as Portugal, Spain, Sweden, and Ireland, which experienced currency decline as well, but did not return to their long-run dynamic until the end of 1995, even with the widening of ERM bands on August 2, 1993 (see charts in appendix B).

Figure 4 provides a concise overview of Central Bank rates in France, Germany, and the United States. The interest rate differential between France and Germany emerges as a crucial short-term strategic

³² As this was already the case of the ERM forced Brexit a year earlier on 16 September 1992, the Black Wednesday where the UK government withdrew the Sterling, after \$22 billion intervention by the Bank of England and a commitment to hike interest rates from 10% to 15%, but still couldn't keep it within the ERM bands. (<https://www.economicsobservatory.com/the-birth-of-inflation-targeting-why-did-the-erm-crisis-happen>)

variable for the market. Our narrative of the emergency meeting in Munich on July 22-23, 1993, underscores its significance (section 5.3), where France, faced with dramatic aggressions on the French franc, sought solidarity from the Bundesbank for coordinated symmetric action on Lombard and market rates, as part of its overall currency defense policy. The interest rate differential exhibits a dynamic trend over time, starting with an average above 4 until January 1987, then exceeding 5 until the beginning of 1988, before entering a downward trend. Its average at the end of the first year of the ERM crisis in 1992 was around 2.12. From June 22, 1993, to July 1, 1993, its value turned negative for the first time ever (-0.25, with the French rate lower than the German one), remaining near zero throughout July 1993 and until September 9, 1993. Its average until the end of 1993 is around 0.6, increasing to 1.03 at the end of 1995.

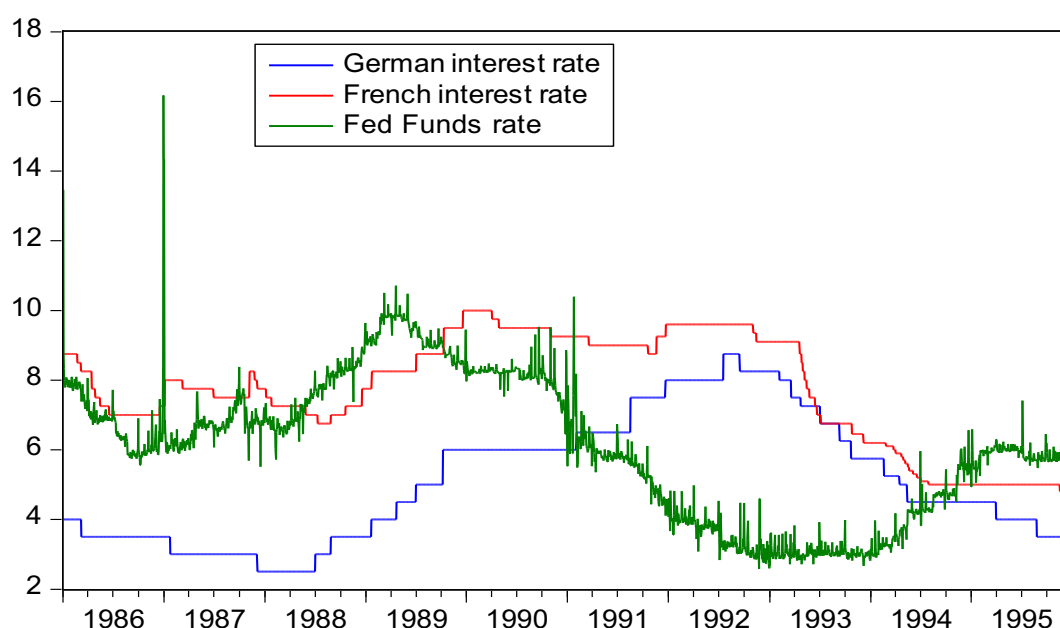


Figure 4. Daily interest rate. France, Germany, and the US, 1986-1995.

• Exchange market pressure 1992-1993

DM interventions amidst the EMS crisis proved to be more costly for France than any other ERM countries. Between June 2, 1992, and August 2, 1993, the Banque de France injected nearly US\$ 68 billion in market intervention, surpassing Sweden and Spain with around \$ 54 billion and \$ 42 billion, respectively (see Eichengreen and Naef, 2022, p.5). Figure 5 illustrates that over 89% of France's DM interventions (approximately \$ 60.4 billion) throughout the entire period (June 2, 1992, to August 2, 1993) were concentrated in less than a month in 1993, specifically from July 8 to August 2, containing about 63.4% of the Bundesbank overall support in this very short time. Additionally, it is noteworthy that all interventions (across all currencies) by the Banque de France during this period from July 8 to August 2, 1993, pertained exclusively to the deutschmark (DM intervention equals Total intervention). This indicates, on the one hand, that the magnitude of aggressions during the July 1993 episode of the EMS crisis on the French franc is unprecedented within the ERM countries and lacks symmetry with the 1992 ones (including the Black Wednesday of September 16- 1992, for Britain and the Pound Sterling). On the other hand, the market threat driving the decline of the French franc from July 1993, fundamentally concerns the Banque de France's position vis-à-vis the Bundesbank (its DM reserves). In this context, using the FFR_DM exchange rate as an endogenous variable for our empirical analysis is solidly robust.

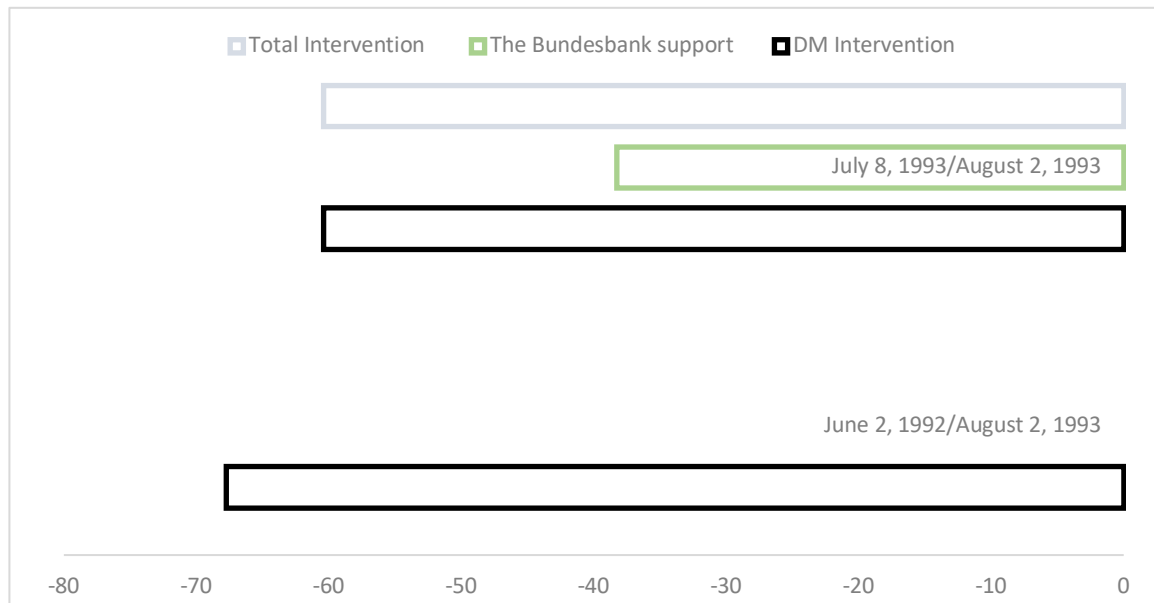


Figure 5. France Intervention net totals, June 2, 1992–August 2, 1993, Vs July 8, 1993–August 2, 1993, (\$ b.)

Figure 6 clearly supports this perspective, indicating that from July 1993, the dramatic market pressures in the EMS mostly concerned on France and the French franc, constituting a uniquely and purely French phenomenon. The highest levels of market pressure on the French franc since 1986 are indeed recorded during this period, with August 2, 1993, marking the French Black Monday (34.88 index points), followed by July 22, 1993, the French Black Thursday (17.45), and then July 30, 1993 (14.34). For comparison, the fourth highest level occurred in 1992 (September 22, with 14.23 points). This aligns perfectly with our narrative, reaffirming the significance of the Munich emergency meeting on July 22-23, 1993 (July 22, 1993, representing an unprecedented pressure level in France at that specific point). During this meeting, the Bundesbank explicitly conveyed to the French team the asymmetry of the crisis and recommended the devaluation of the French franc as the only viable positive long-term signal to counter the ongoing chaotic market aggressions.

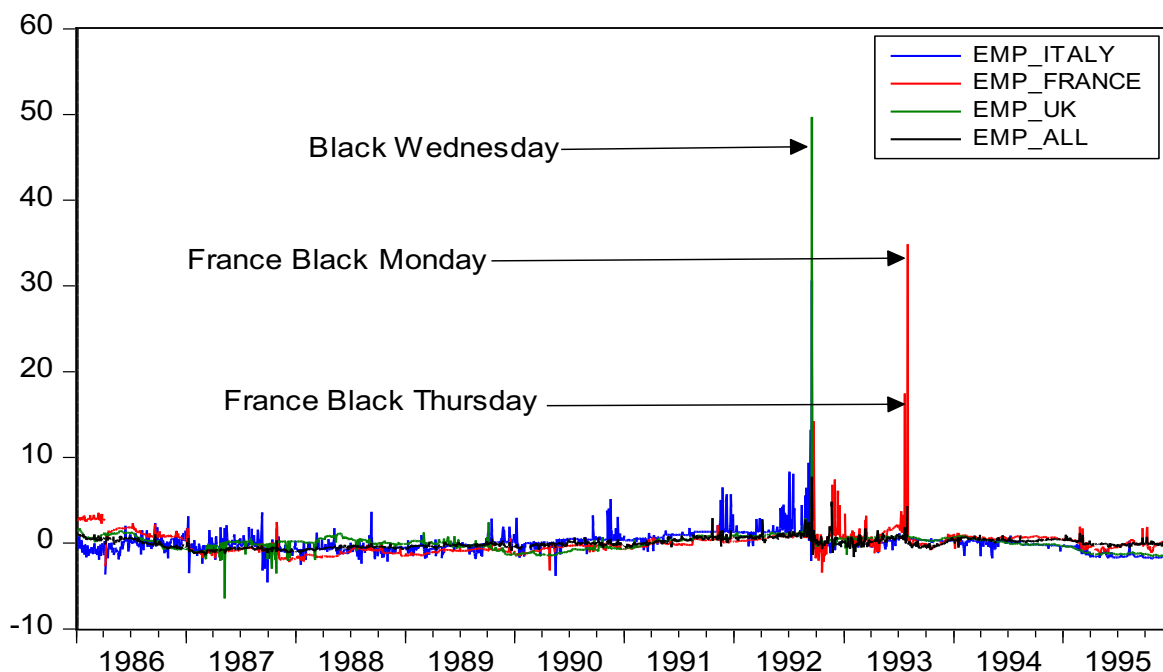


Figure 6. Exchange market pressure. France, Italie, the UK, and Europe (average 12 ERM countries), 1986-1995

Table 2 provides a detailed overview of Banque de France's interventions in the DM market and the reconstitution of reserves from August 2, 1993, the date of the ERM bands widening, in support of France. Despite this European solidarity policy action coupled with exchange controls over African countries within the Franc Zone, speculations on the French franc persisted until December 14, 1993, with defensive interventions by the Banque de France on the DM market until that date (negative values). During this period, there was a modest beginning of reserves recovery on some other currencies. By mid-December, when the CFA franc devaluation was well underway and integrated by the market, especially with the BCEAO's December 7, 1993, reform announcement of stronger exchange controls within the Franc Zone effective 20 December 1993, the situation began to reverse positively for France. From December 15, 1993, the FFR_DM market became profitable for the Banque de France, and this positive dynamic continued until the CFA devaluation on January 11, 1994, accelerating continuously until March 30, 1994, with a brief pause until May 26, 1994. And it was also on this same date of March 30, 1994, that the BECAO Governor Ouattara, who had been in office since October 1988 and was also the Ivorian Prime Minister, a senior IMF official, and a close collaborator of its Managing Director Camdessus, officially handed over the role to a new Governor at the BCEAO, Charles Konan Banny, who had been officially appointed since November 22, 1993.

Throughout 1994, France's and the Banque de France interventions in the DM market were consistently successful, signifying the definitive end of its currency crisis and the decline of the French Franc. Notably, this positive turn coincided with the controversial CFA franc devaluation. The gains from the French franc/DM market in Banque de France reserves recovery surged from 15.67% at the end of 1993 (US\$ 1.8 billion in a total of \$11.55 billion) to 69.09% on December 31, 1994 (\$14.09 billion for a total of \$20.39 billion). However, after a brief lull in market operations at the beginning of 1995, a new series of destabilization of the French franc on the DM market started on February 24, 1995, continuing until the end of the year. As of December 31, 1995, the balance of Banque de France's total interventions was negative (-\$10.48 billion), with the DM market absorbing over 100% of the incurred losses.

Table 2: Mapping of Banque de France DM intervention from August 2, 1993 to December 3, 1995

Year 1993	DM Intervention (\$ m.)	Total Intervention (\$ m.)
August 3 - September 20	0	635
September 21	-31	-57
September 22 – December 13	0	8950
December 14-	-213	-133
December 15 – December 31	2055	2155
Total	1811	11550
Year 1994		
January 1– January 11	3387	3387
January 12– March 29	8957	8957
March 30– May 26	0	1655
May 27 – June 21	985	985
June 22 – August 3	0	1692
August 4 – October 3	60	2315
October 4 – October 14	599	599
October 15- November 30	0	703
December 1 – December 5	105	105
December 6 – December 31	0	0
Total	14093	20398
Year 1995		
January 1 – February 23	0	0
February 24 – March 17	-7362	-7012
March 18 – May 30	-248	-248
May 31	0	400
June 1- December 31	-4314	-3629
Total	-11924	-10489

Source: The Author

Confronted with the insufficiency the ERM bands enlargement on the French Black Monday of August 02, 1993, which marked a surge of European solidarity towards France for the return of the French franc, the devaluation of the CFA franc—*substituted to that of the French franc suggested by the Bundesbank*—clearly emerged as the crucial positive long-term signal for a winning DM market for France. This devaluation signified the restoration of long-run credibility for the French franc in the Deutschmark market, thereby preventing it from an impending and already anticipated dramatic decline. The imminent risk of the French franc's decline was effectively shared through the Franc Zone mechanism with African participants, an idea previously proposed by former Banque de France Governor Jacques De Larosière during the unsuccessful attempt in late July 1992 (see section 5.2), supported by Camdessus and the International Monetary Fund (IMF).

• Econometric estimations

None of the linear-type models yield compelling results, as they consistently fail in residual diagnostic checks—exhibiting non-normality, covariance non-stationarity (ARCH effect), and sometimes with second order correlation issues. The endogenous variables, French franc/Deutschmark (FFR_DM) and CFA franc/dollar (CFA_USD) exchange rates, along with the interest rate differential between France and Germany (Rate_diff_FRA_GER), exhibit lagged stationarity. Meanwhile, the Exchange market pressure in France (EMP_FRA) and Banque de France deutschmark intervention (Int_FRA_DM) are level stationary. This raises suspicions of existing cointegration in the model, which is confirmed by the Johansen cointegration test, revealing only one cointegration relation. According to Engle and Granger's (1987) representation theorem, an error correction model (ECM) emerges as a suitable specification for our model, providing a cost-free addition for extended overall causalities and impulse responses verification through SVAR checking.

Nevertheless, our estimation of various Error Correction Models (ECMs) for both endogenous variables—FFR_DM and CFA_USD exchange rates—yielded non-significant results. The E-Granger coefficient was not valid in the FFR_DM model (negative but p-value = 0.508), and although it was valid in the CFA_USD model (negative and p-value prob= 0.039), all regressors remained non-significant. As an alternative approach, we explored different combinations of the change in exchange rates ($Y_t - Y_{t-1}$) as endogenous variables on a rolling basis, inspired by the work of Eichengreen and Naef (2022). However, these combinations also failed to produce conclusive results, as they indicated 2 cointegration vectors from the Johansen Test, suggesting the suitability of a Vector Error Correction Model (VECM) in each case, where a VAR serves as a good proxy. Consequently, we focus directly on the SVAR results, examining their insightful overall impulse features.

In a first step, we discuss the main output from the double steps DCC-multivariate GARCH-X running, for the two endogenous variables French franc/Deutschmark (FFR_DM) and CFA franc/dollar (CFA_USD) exchange rates. Both models successful passed all robustness check, encompassing diagnostic assessments of residuals and fitness adjustments.

In the FFR_DM model, achieving convergence at the 279th iteration using StataSE-14, all variables in the first step match an ARCH (1) specification for the mean equations and a GARCH (1) structure for the volatility equations. This results in an overall GARCH (1,1) configuration, demonstrating statistical significance at less than the 1% level (all probs = 0.000). Similarly, the CFA_USD model yields analogous outcomes, with the exception of both exchange rates, CFA_USD and FFR_DM, following an ARCH (1) specification, indicated by non-significant GARCH (1) coefficients (*prob* > 10%). Table 3 provides a succinct summary of the results concerning dynamic conditional correlations (DCC) in the second step estimations, exclusively for the endogenous variables. The comprehensive output can be found in Appendix C.

Table 3: Dynamic Co-movements of French franc/DM and CFA/dollar exchange rates

Models	Coefficients	Std. Errors
1-FFR_DM		
Corr (French franc/deutschmark, CFA franc/dollar)	0.2515***	0.0532
Corr (French franc /deutschmark, DM Intervention)	0.2077***	0.0639
Corr (French/deutschmark, Market pressure)	0.2278***	0.4767
Corr (French/deutschmark, Rate differential)	0.6028	0.5159
Number of observations = 2505 Iterations Conv. = 279 Loglikelihood = 13094.74 Distribution: Gaussian		
Adjustment (in Fisher global sense)		
Lambda 1 (L1) and Lambda 2 (L2)	L1:0.3121***; L2:0.6813***	L1: 0.0072; L2: 0.0738
2-CFA_USA		
Corr (CFA franc/dollar, French franc/deutschmark)	0.5589***	0.0304
Corr (CFA franc/dollar, DM Intervention)	-0.0123	0.0426
Corr (CFA franc/dollar, Market pressure)	-0.2262***	0.0335
Corr (CFA franc/dollar, Rate differential)	0.7305***	0.0341
Number of observations = 2505 Iterations Conv. = 279 Loglikelihood = 12966.09 Distribution: Gaussian		
Adjustment (in Fisher global sense)		
Lambda 1 and Lambda 2	L1: 0.3465***, L: 0.6402***	L1: 0.0100 and L2: 0.0105

*** 1% level of statistical significance ($Prob < 1\%$)

The analysis reveals compelling evidence of dynamic, positive, and significant co-movements between the French franc/Deutschmark exchange rate and the CFA franc/dollar rate in both models. Shocks affecting the French franc/DM exchange rate are evidently transmitted to the CFA/dollar rate, even in the absence of underlying fundamentals, suggesting a pure psychological contagion effect. Additionally, a pronounced contagion effect is observed between the second moments (volatility) of the CFA/dollar exchange rate and both the market pressure in France (negative) and the central bank interest rate differential between France and Germany. Concerning France, the volatility of the rate differential is notably less relevant for the French franc/DM rate compared to the volatility of the DM exchange market pressure (EMP) and the Banque de France DM intervention. This aligns with the findings of Nkwatoh and Cornelius (2019) in Central Bank of Nigeria (CBK)'s Journal of Applied Statistics, who found similar contagion effects of a Euro crisis on the CFA franc (focusing on Cameroon), using a Stochastic-Markov Transition Model.

In essence, the CFA/dollar rate emerges as a crucial market adjustment variable for the French franc/DM exchange rate, demonstrating a significant contagion effect with no strict dependence on underlying fundamentals. The market is evidently aware of and anticipates this positive contagion relationship between the two exchange rates (FFR/DM and CFA/USD). Consequently, any devaluation of the CFA/dollar rate is interpreted by the market as a long-term credibility enhancer for the French franc/deutschmark at that time, irrespective of fundamental economic factors. This implies that policymakers in France, operating within the Franc Zone mechanism, have the guarantee of always achieving success between two almost perfectly substitutable policy choices (counterfactual scenario): either a devaluation of the French franc/Deutschmark rate if demanded by the market or a consequential devaluation of the CFA/dollar rate. Both choices send nearly identical long-term psychological (pure) signals to the market, with the latter even considered a stronger endorsement for France. Furthermore, during periods of intense aggressions on the French franc/deutschmark (high exchange market pressures in France), such pressures are transferred to the CFA/dollar rate, making it susceptible to every decline or rise of the French franc. The latter scenario is less predictable, as it is subject to historical political dynamics embodied by the Franc Zone pegging system. This observation aligns with a theoretical political economy idea in the work of Vallée (1989), as discussed in Section 1 (Introduction).

In the unfolding of what can now be characterized as the 1993 French currency crisis, French policymakers, potentially in collaboration with their European Exchange Rate Mechanism (ERM) partners, interpreted the surge in aggressions against the French franc from early July 1993 as originating from a disequilibrium within the Franc Zone system, specifically pinpointing a misalignment in the CFA/dollar market. Despite some spurious correlations made with economic challenges in a few African countries of the Franc Zone at that time, notably Côte d'Ivoire and Cameroon, the majority of African countries within the zone³³ did not seem to be facing such difficulties, as discussed in section 5.1. and indicated by the positive balance sheet of the BCEAO 'Compte d'Opérations' in Table 1 for the end of 1992, 1993, 1994, and beyond (section 5.4.). In response to this perceived dilemma, the European Exchange Rate Mechanism (EMS) demonstrated solidarity with France by revising the ERM bands, aligning them asymptotically over the most recent historical maximum of the CFA/dollar exchange rate achieved on February 9, 1992. This strategic move together with exchange controls enforced within the Franc Zone on August 2, 1993, aimed to quell speculative attacks and initiate the restoration of credibility for the French Franc in its deutschmark market. However, as the root cause of the issue was not the CFA franc or the African nations within the zone, this broad European solidarity action failed to sustain the expected outcome. Consequently, the decision to implement a politically exclusive devaluation of the CFA franc, in collaboration with Ouattara, Camdessus and the International Monetary Fund (IMF), proved to be the successful course of action maintained, even though the Guillaumont(s) warning (section 5.3).

The VAR estimations achieve optimality and robustness for $p = 2$, $VAR_{(2)}$, with all variables taken in their stationary differences. In the model for the French franc/deutschmark, only market pressure and DM intervention are significant, both with expected negative coefficients. Notably, the CFA franc/dollar rate is unsurprisingly found to be not significant in this adjustment. Conversely, in the model for the CFA franc/dollar rate, a noteworthy result emerges: only the Banque de France DM intervention on the Deutschmark is significant and carries a negative coefficient. This variable remains significant in most other adjustments, except for the rate differential between France and Germany.

- Impact of a shock on the Banque de France deutschmark intervention

There is a complementary aspect to this result when compared to the earlier findings from the DCC models. In the CFA/dollar model, only DM_Intervention, even with a negative coefficient, is not significant. The interpretation is that DM_Intervention serves as the 'fundamental' (direct mean) channel—*though not a volatility channel*—through which attacks on the French franc/Deutschmark market are transmitted/shared, causing depreciation in the CFA/dollar exchange rate. Behind DM_Intervention lies the injection of reserves by the Banque de France. The fundamental characteristic of the Franc Zone system lies in the centralization (pooling) of reserves from African participants' Central Banks (the BCEAO, the BEAC, and the Comoros) in their respective Compte d'Opérations at the French Treasury. This account has a corresponding account at the Banque de France through the Exchange Stabilization Fund ('Fonds de Stabilization des Changes-FSC'). As the Banque de France reacted to currency aggressive attacks on the DM market during the 1993 crisis with unprecedented interventions, some of the foreign market disequilibrium in France was transferred to African participants in the Franc Zone through the Compte d'Opérations mechanism. The 'Compte d'Opérations' serves as the operational and strategic direct channel through which exchange risks in France are shared and can be directly transmitted to African participants in the Franc Zone—a reserve channel.

³³ Sections 5 on the Banque de France and the Guillaumont(s) reports of 1989 and Autumn 1993 extensively enlightens this viewpoint.

Response to Cholesky One S.D. Innovations ± 2 S.E.

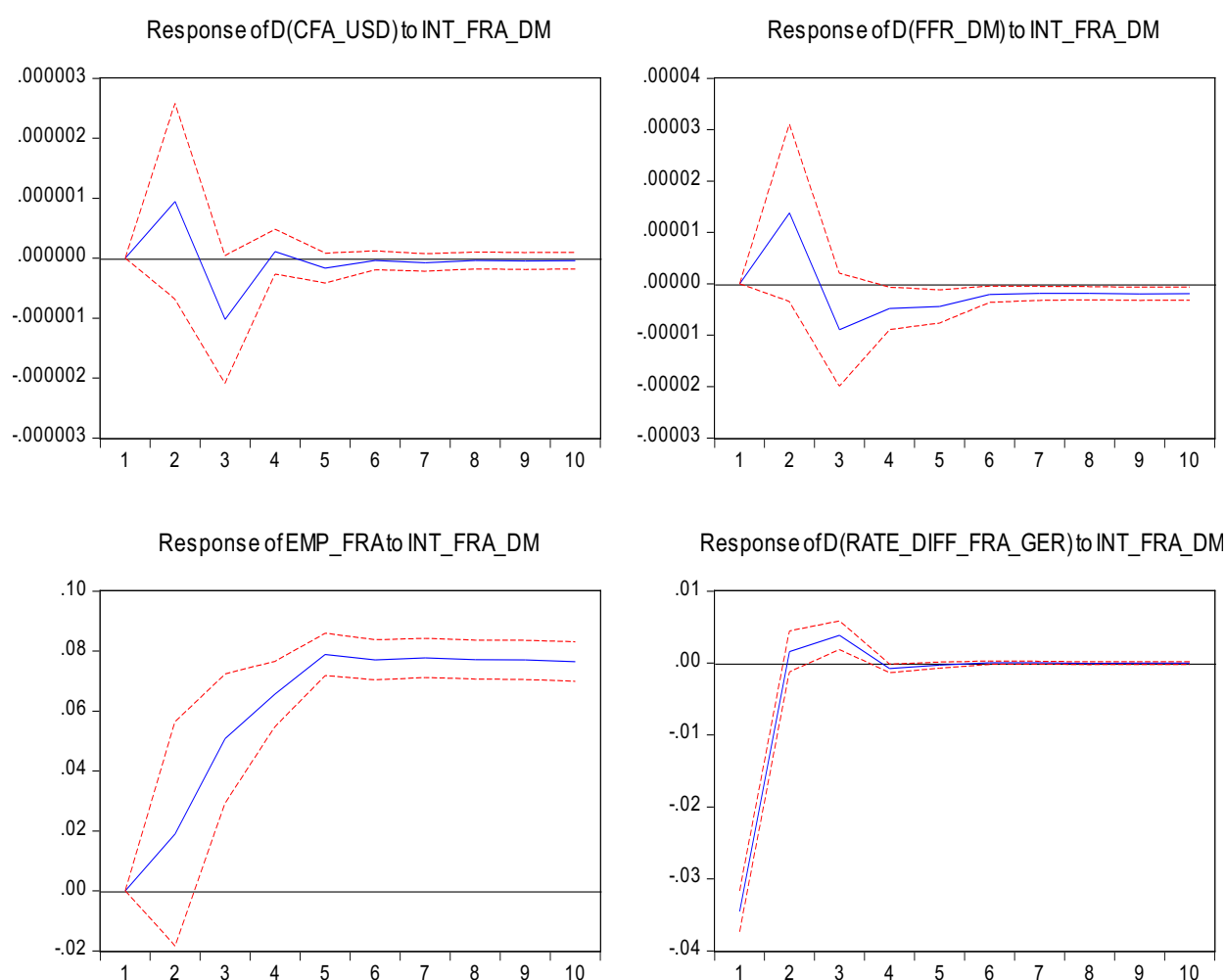


Figure 7. Impulse response to a shock on the Banque de France deutschmark (DM) intervention

This robustness confirmation aligns with our narrative and sheds light on why former Governor of the Banque de France, Jacques De Larosière, suggested an anticipated debit of the Compte d'Operations to transfer exchange risks in France to Africans in the Franc Zone during the failed CFA devaluation attempt in late July 1992 (see section 5.2). It becomes evident why the CFA devaluation on January 11, 1994, served as the credibility-backer of the French franc during its unprecedented EMS crisis. Whilst the Franc Zone system is promoted as guaranteeing a certain global stability for the CFA franc, this assertion does not hold true in trouble times for France, where the winners and losers game is transposed to some other very complex technical and political arenas.

- **On the French franc/Deutschmark exchange rate positive restart from mid-October 1993 (before the January 1994 devaluation)**

The restart of the Franc-Mark exchange rate, which occurred slowly from the 1993 Autumn (mid-October to the beginning of November precisely, see figure 3), corresponds to the short-term result of the EMS solidarity action on August 2, 1993, France's 'Black Monday.' This action consisted of the asymptotic recalibration of the ERM bands over the most recent maximum of the value of the CFA/dollar exchange rate (reached on February 9, 1992, the maximum over the entire period, see figure 3 paragraph). This measure, along with the exchange controls enforced within the Franc Zone on that same date (IMF,

1993b), temporarily eased the aggressive market tensions in the short term (daily DM interventions = 0 mainly over the period from August 3, 1993, to December 14, 1993) and enabled the Banque de France to return to gains on some other international currencies, though not on the Deutschmark.

However, the market was not completely reassured by this measure, and speculations on the Franc-Mark exchange rate continued until December 14, 1993 (negative DM interventions for certain days over the period from August 3 to December 14, 1993, see table 2). It was necessary to provide a stronger additional long-run psychological signal for the market to guarantee the sustainability of the initiated return to credibility in the Autumn (mid-October 1993) through the widening of the ERM bands and combined exchange controls within the Franc Zone. This was essential to completely eradicate speculations and allow the returned stabilization of the Franc-Mark exchange rate around its long-term trend. Such role was therefore played by the CFA Franc devaluation, somewhat in substitution to that of the French franc suggested by the Bundesbank during the meetings of July 22-23, 1993 (narrative section 5.3, from p.21). The empirical results of the DCC-GARCH-X estimates (see table 3) confirm the market's valid reception of such substitution (counterfactual scenario). It is crucial to emphasize that the upward slope of the Franc-Mark exchange rate from mid-October 1993 is not contradictory to the tested argument. Instead, the two aspects are ultimately complementary in evolution, or more precisely, the second is positioned as an anticipated response to the unsustainability of the first.

Moreover, considering the narrative from the Banque de France archives, Sub-section 5.3, the last paragraph (p.24) on the Autumn 1993 second report of the CERDI and the Guillaumont(s) provides a more concrete understanding of the political discussions during this 'fall', regarding the CFA Franc devaluation as the final solution to the French franc EMS crisis. Additionally, Subsection 5.4, starting from p.24, outlines the chronology of the reforms undertaken simultaneously on the BCEAO side in this autumn of 1993 (from the beginning of October 93). Of particular note is the measure taken on December 7, 1993, to block the convertibility of CFA francs within the Franc Zone (additionally to the outside-Franc Zone exchange controls already enforced since August 2, 1993), which served as a clear indication of the imminent devaluation. The market quickly integrated this information effective for 20 December 1993, triggering the return of Banque de France gains on the DM market a week later, from December 15, 1993 (see table 2). This trend continued and accelerated after the 'CFA' devaluation on January 11, 1994, remaining stable throughout the entire year 1994, and even until February 23, 1995 (table 2).

8. The Way-Forward

The history of monetary cooperation within the Franc Zone between France and its African partners, if not its former African colonies, is finally revealed as two-sided: the one officially known and documented in texts, and the other carefully concealed behind the decision-making processes and mechanisms of significant historical experiences for both parties. Unfortunately, it conforms to a general rule articulated by Werner (2002) in all cases involving a Central Bank: *'What They Say versus What They Do,'* reminiscent of Svensson's (1996, 1997a) transparency conditionality. The EMS crisis of 1992-93, traditionally portrayed as a purely European phenomenon, actually had a more international component, fully involving the Global South and Africa, particularly the French partners in the Franc Zone. It is a shared narrative that, through the dynamics of an imbalanced monetary cooperation, can be summarized as memories of gains and salvation for some, whilst others recall a dark period of economic upheaval, the consequences of which may still linger in the present.

The guarantees defended by France for the integrity and beauty of the Franc Zone monetary system are ultimately more theoretical than practical, as evidenced by the significant historical event of the CFA franc devaluation on January 11, 1994—the most substantial reform within the Zone. In a strategic game where the monetary system is a highly complex technical instrument, politically actionable, and firmly under the control of France, the cooperation within the Franc Zone came at its expense. In 1993, it spared the French Franc from an imminent decline during a phase of the EMS crisis that was more distinctly

French than European at the time. France emerged from this crisis without significant costs, thanks in part to the Franc Zone's *Compte d'Opérations* mechanism that allowed some risks-sharing, and transferred some of the burdens to African participants. The Franc Zone, with its *Compte d'Opérations* mechanism, are therefore set-up as a system offering control possibilities, coercion, and the transfer of exchange risks. This aligns with Avaro's (2021, 2024) findings in section 1 regarding the case of Britain and its former colonial Sterling Zone. In a cooperative game with utility transfers, the Shapley equilibrium of the system hinges on the quality of technical information manipulated by each player. In this context, France gains even more when considerations are made to support from its partners with the International Monetary Fund (IMF) and their networks in Africa.

The likelihood of any consideration of monetary detachment within the Franc Zone or the deconstruction of the zone is highly improbable. Despite official texts that may suggest such possibilities, the massive gains involved make any such idea trivially unwelcome. These gains have been crucial in the past and continue to be of great importance. The enthusiasm in December 2019 for the Macron-Ouattara third (3rd) generation cooperation exclusive reform in the Franc Zone, surprisingly for the BCEAO and WAEMU only, almost in response to the perceived threat of an ECOWAS community monetary project (as highlighted by Dufrénot and Sugimoto, 2013; Amato and Nubukpo, 2020; etc.), serves as a vivid illustration. However, monetary cooperation within the Franc Zone has long remained imbalanced, as suggested by Flandreau (2006), Schenk (2010, 2021), and Feiertag (2020). France, due to the protection of its interests, holds participation rights in the Boards of Directors of the BCEAO, the BEAC, and the Central Bank of the Comoros (BCC). The reverse exercise of such participation is not necessarily reciprocated, a situation that could have played a role in the ease with which the 1993/94 strategy was implemented.

Today, the Franc Zone and monetary cooperation are no longer a solely France-Africa matter, but have become a European affair. With the transfer of the peg to the Euro, validated by Brussels (the Council of the European Union) in November 1998, the future of the Franc Zone in the medium to long term depends on how new necessary adjustments are seriously considered in a consolidated Europe-African vision, and that problems and disagreements of the past are re-debated around sufficiently balanced and sincere discussion tables. Failure to achieve this could lead to a stronger uncertain future, potentially marked by heavy aggressive populisms. Whilst such movements may lack substantive technical arguments, their international dispersion, including within the Euro Zone (as observed in Italy, for example), and the dynamics of a rapidly changing world are driving forces, that should not be neglected either.

This shift is fundamentally crucial for a healthier and stronger monetary cooperation, and more generally, for an easing of already global heavy tensions. Addressing the significance of new challenges is paramount, that in the spirit of Monnet (2021, 2024), achieving '**a greater democracy**' within the Banque de France itself (and amongst the French political sphere) around sensitive and potentially divisive related issues is crucial for the nearer future. This suggests that ultimately, similarly to the '*Comité Monétaire de la Zone Franc/Monetary Committee of the Franc Zone-CMZF*' at the Banque de France during the colonial era and many years after independence, establishing **a new democratic body**—perhaps '**a Franc Zone's Transition Committee**'—for the ongoing period onwards, could be particularly interesting. Such '*Transition Committee*' could serve as a platform of the current-period showcasing, where France and the Banque de France are continuously defending a purely win-win cooperation within the Franc Zone framework, emphasizing a no longer-imperialist and non-neocolonialist stance.

The technical responsibilities of such '*democratic Transition Committee of the Franc Zone*' at the Banque de France/Eurosystem should be expanded to include a European scale, and encompassing an accordingly weighted mixture of extended both European and African teams. As explained in Perez (2022, p.876, also cited in D'Almeida, 1999), the primary argument of the French Government over the Germans' concerns in 2001, amidst negotiations for the Euro Zone ratification of the Franc Zone peg agreements and the maintenance of the different *Comptes d'Opérations*, was that the guarantee of the CFA franc's peg was entirely and solely the responsibility of the French Treasury, rather than the Banque de France, and as

such a fully fiscal matter. However, without undermining the leading role, particularly political, of the French Treasury in these arrangements, revisiting the 1994 experience highlighted here, suggests that the issue is inherently more of a monetary concern for France, involving fundamentally at all levels and even more especially in troubles' times, the Banque de France-Eurosystem, and consequently, the European Central Bank (ECB) ever since. Also, it is of the obvious now that the African countries within the Franc Zone system are not immune to the possibility of a significant non-domestic and external devaluation in the future. This risk is especially even more pronounced in the event of a subsequent Euro crisis (Nkwatoh and Cornelius, 2019), also in line with the notion that *'the thing that has been, it is that which shall be; and there is no new thing under the sun'*: better to get ready for the next fast-approaching trouble. In such a scenario, given the new era of the peg arrangement fully accommodated by the European Union (EU) since the then November 1998 agreements, and the European Central Bank (ECB) from its operational commencement of the Euro on January 1, 2002, future responsibilities extend well beyond the sole purview of France and the Bretton Woods Institutions, to potentially question also both Brussels and Frankfurt, on probable challenges and discrepancies.

9. Conclusion

Examining the decision-making process behind the most significant monetary reform in the Franc Zone is the primary focus of this paper. The historical records stored in the archives of the Banque de France, along with those of the BCEAO, coupled with the recollections of former technocrats and policymakers in Africa, present a rich and captivating narrative that holds particular and fascinating interest for basic scientific curiosity.

The CFA Franc devaluation on January 11, 1994, stands at the center of a highly intricate and still relevant experience, engaging the forces of a dynamic game that is collaborative, economic, financial, highly technical, but above all, political—somehow imperialistic and international. As noted by the Guillaumont(s) in their 1993's autumn report, the political choice made by France might indeed reflect a Keynesian intuition: 'in the long run, we will all be dead.' The fundamental necessity at the time was to save the system in the short run, and to adjust the balance on its side, with the BCEAO, the BEAC, and the Comoros Central Bank (BCC) remaining corresponding statistical offices of Paris and so mere observers. However, the long term is now illuminated, unveiling a Franc Zone that still survives but is also considerably weakened, dislocated on one side—a testament to the Macron-Ouattara third-generation cooperation agreement of December 2019 in West Africa. On the other side, aggressive populism emerging from new generations in Africa, and attacks on France even within the European Union (as witnessed recently in November 2022 from Italy), are becoming revealing. Perhaps these are the serious risks for the long run that CERDI and the Guillaumont(s) on behalf of the Banque de France predicted in the fall of 1993, or what worse challenges may still be expected?

Regardless, the past is somewhat quite blurred, but its understanding is pivotal in constructing a new, sound future. It is entirely obsolete for these questions to remain taboo in our common present. President Macron, during one of his recent tours in the African Franc Zone in July 2022, spoke of *'the time to open up archives, as to address the wounds of the past and reorient a better common future history.'* And it is to this task that all institutions and individuals together, should lend themselves, as the very prospects of the Franc Zone depend on, in all respects. Recent discussions as of May 29, 2024, at the French Parliament in Paris, specifically within its Foreign Affairs Committee, convening French parliamentarians, experts from the Banque de France/Eurosystem, the 'Fondation pour les Etudes et Recherches sur le Développement International' (FERDI, *the Foundation for Studies and Research in International Development*), de l'Institut de Relations Internationales et Stratégiques (IRIS, *the French Institute of International and Strategic Relations*), the United Nations Educational, Scientific and Cultural Organization (UNESCO), and others, offer a promising prospect for opening the debate. However, these initiatives should be extensively multiplied and aim for greater inclusivity of the South.

Appendix A: Sources

- *Archival Sources at the Banque de France (ABF, Mission historique- 'Historical mission', Paris)*

Annual reports of the Franc Zone reports, Banque de France and Gallica.

Banque de France archives (ABF) - Mission historique de la Banque de France : ' Zone Franc, parité du franc, des monnaies coloniales avec les devises : JO, presse, note, déc. 1945 sept.1960, 1924-1972. (ABF, 0011199901, Box 10);

Zone Franc, fonctionnement et évolution : notes, extraits de JO, statistiques, études, extraits de presse, rapport ; parité du franc CFA :étude, extraits de JO, extraits de presse', 1954-1997. (ABF, 1466200601/11).

Banque de France archives (ABF) : '1 Banque de France archives (ABF) 'Zone Franc, fonctionnement et évolution : études, extraits de presse, notes, La Zone Franc, publication de Marc VIZY par le Centre des Hautes Études sur l'Afrique et l'Asie moderne en 1989, 1954-1997' (ABF, 1466200601/11).

Banque de France archives (ABF) : 'Conventions de coopération monétaire entre les États membres de la BEAC et la France : extrait de JO ; réglementation des changes dans les États membres : note ; 1973-1980, (ABF, 1466200601/211)

'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes', 1955-1975 ; 'Réformes monétaires : notes, correspondance, extraits de presse, textes réglementaires, compte-rendu ; représentation de la France au conseil d'administration : correspondance ; arrêt des comptes de l'ancienne Banque Centrale : correspondance, rapport, statistiques ; organisation et fonctionnement : notes, texte réglementaire, correspondance' ; 1959-1963, Convention de Compte d'opérations, 1973, (ABF, 1466200601/167)

Banque de France archives (ABF) : 'Fonctions et obligations : Recueil des textes constitutifs, dispositions organiques, règles de procédure et de fonctionnement (1972-1985). 1988' (ABF, 1466200601/211)

Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes', 1955-1975 ; 'Réformes monétaires : notes, correspondance, extraits de presse, textes réglementaires, compte-rendu ; représentation de la France au conseil d'administration : correspondance ; arrêt des comptes de l'ancienne Banque Centrale : correspondance, rapport, statistiques ; organisation et fonctionnement : notes, texte réglementaire, correspondance' ; 1959-1963, (ABF, 1466200601/167)

Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes...1955-1975, 'Statuts de la Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO), Entrés en vigueur le 1er Novembre 1962, dossier Secrétariat du Comité Monétaire de la Zone Franc (CMZF)', (ABF, 1466200601/167).

Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes...1955-1975, 'Note confidentielle N°16989W/Paris/ 8 Juin 1968, du Directeur Général de la BCEAO à l'attention de M. Theron, Comptes en devises de la BCEAO', (ABF, 1466200601/167).

Banque de France archives (ABF) : 'Zone Franc, fonctionnement et évolution : notes, extraits de JO, statistiques, études, extraits de presse, rapport ; parité du franc CFA :étude, extraits de JO, extraits de presse', 1954-1997. (ABF, 1466200601/11).

Banque de France archives (ABF) : 'La Zone Franc, les institutions de Bretton Woods et la conditionnalité, étude du CERDI', 1958-1973, (ABF, 1466200601/13).

Banque de France archives (ABF) : 'Minutes from the Governor Office, 'Meeting at Matignon on the CFA franc, chaired by Mr. Beregovoy, Prime Minister, Monday 27 July 1992', (ABF, 1035200601/AR1).

Guillaumont, P., and S. Guillaumont, 1989. 'Le Problème de la Parité des Francs CFA', Confidential Report of the Centre d'Etudes et de Recherches sur le Développement International (CERDI), May 1989, Banque de France Archives (ABF), 'Secrétariat du Conseil Général et du Conseil de la Politique Monétaire', (ABF, 1035200601/AR1).

Guillaumont, P., and S. Guillaumont-Jeanneney, 1993. 'La Zone Franc : Si tôt trop tard?', Confidential report of the CERDI, Etudes et Documents, Automne 1993, Banque de France Archives (ABF, Zone Franc, fonctionnement et évolution : études, extraits de presse, notes, La Zone Franc', 1954-1997, 1466200601/11).

Jeune Afrique investigation « Plans misères », « diktas », « ingérences », l'Afrique accuse le Fonds Monétaire International, ses trois plus hauts dirigeants répondent « coresponsabilité » et « vision à long terme »' by Jean-Pierre Bejot, Archival sources of the Banque de France (ABF) : 'FMI, interventions dans les États africains de la Zone Franc : extraits de presse, notes ; organisation d'un séminaire sur la Zone Franc : note' 1981-1998, (ABF, 1466200601/441).

- *Archival sources of the International Monetary Fund (IMF) :*

IMF, 1949. 'Exchange System – CFA Franc Zone', International Monetary Fund, Executive Board, Special No 71, June 21, 1949, Declassified IMF Confidential archives.

IMF, 1991. 'The CFA Franc Zone: Currency Union and Monetary Standard', International Monetary Fund, Research Department, IMF Working Paper by Boughton J. M., WP/91/133, December 1991, IMF archives.

IMF, 1993a. 'Statement by Michel Camdessus on European Monetary Developments', International Monetary Fund, News Brief for Immediate Release, IMF Masters Files, Room C-525/0411, Number 93/12, August 2, 1993, IMF archives.

IMF, 1993b. 'Modification of Exchange Regulations in the West African Monetary Union', International Monetary Fund, Declassified IMF Confidential document, IMF Masters Files, Room C-525/0451, EBS/93/168, October 20, 1993, IMF archives.

IMF, 1994a. 'Minutes of the Executive Board Meeting 94/2, 10:00 a.m., January 14, 1994', International Monetary Fund, June 20, 1994, Declassified IMF Confidential archives, Approval 6/27/94.

IMF, 1994b. 'Linkages in Price Level and Inflation Rate Between : CFA Franc Zone Countries and France', International Monetary Fund, African Department, Prepared by Diep Nuven, Authorized for distribution by Pierre 'Dhonte, IMF Working Paper, WP/94/93, August 1994, IMF Archives.

IMF, 1994c. 'Minutes of the Executive Board Meeting 94/20, 10:00 a.m., March 11, 1994', International Monetary Fund, August 16, 1994, Declassified IMF Confidential archives, Approval 8/23/94.

- *Archival sources of the French Treasury included in the paper :*

The daily data of the different Compte d'Operations in the Franc Zone almost as FX data, are available at the French Treasury, 'Central Accounting Agency of the Treasury-Agence Comptable Centrale du Trésor (ACCT)' but not accessible under France national heritage code.

French Treasury archives : 'Direction du Trésor, Intérêts trimestriels de la BCEAO, taux d'intérêts des banques centrales aux avoirs en compte d'opération : correspondance, tableaux' 1974-1985, B-0072818/1.

- *Some archives from the BCEAO and the BEAC, and interviews with resource persons.*

Appendix B: Exchange Rates and ERM Bands

We extend our sincere gratitude to Alain Naef from the Banque de France for generously sharing the data along with comprehensive details. The charts in this appendix, also part of Appendix C of Eichengreen and Naef (2022), depict the spot exchange rate (against DM) and its corresponding ERM bands (upper and lower limits). Additionally, DM intervention data (\$ m.) up to 1995 is presented for several ERM countries.

Figure B1. Netherlands

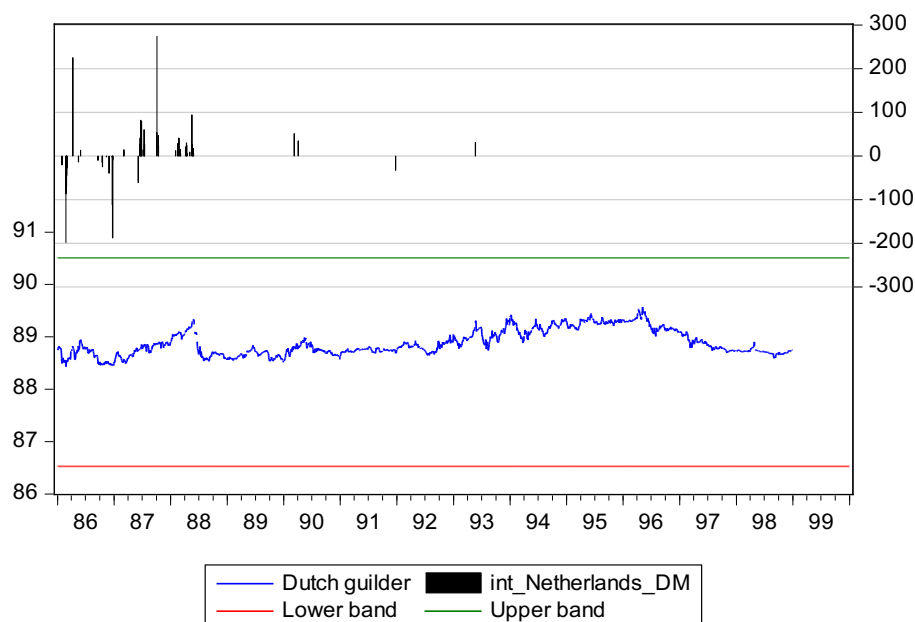


Figure B2. Portugal

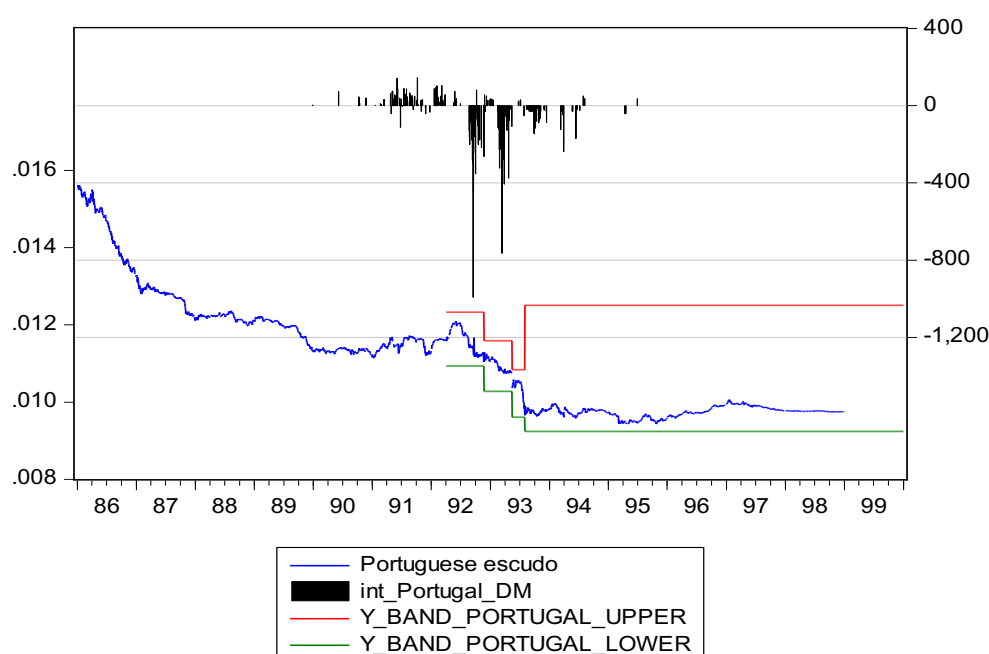


Figure B3. Spain

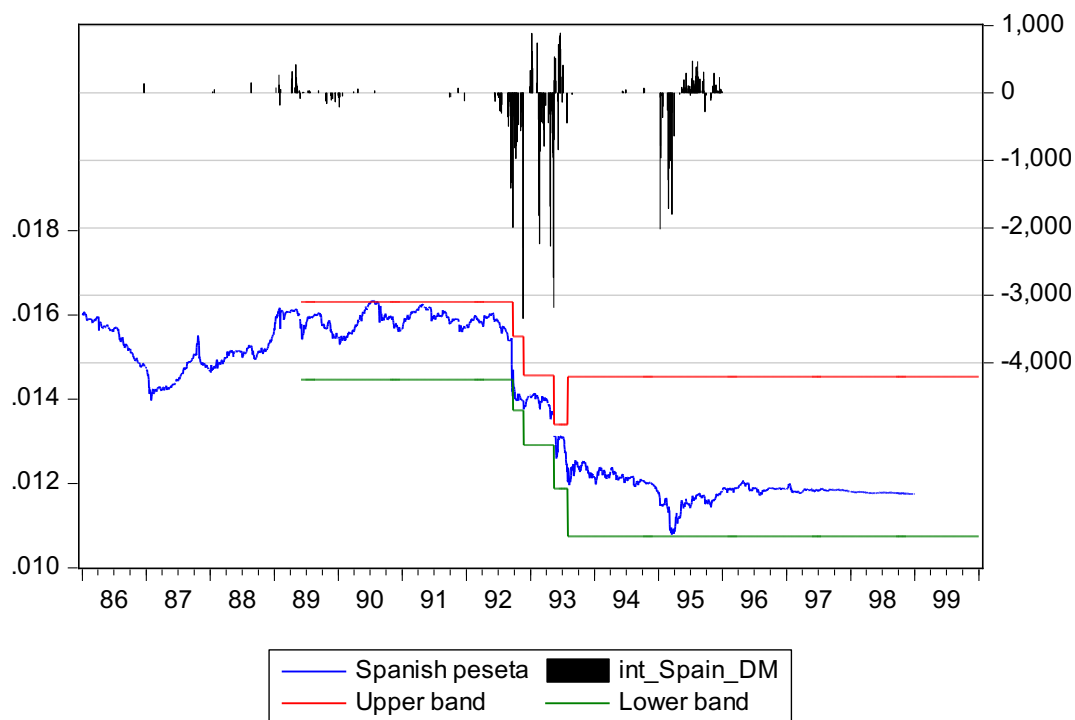


Figure B4. Sweden

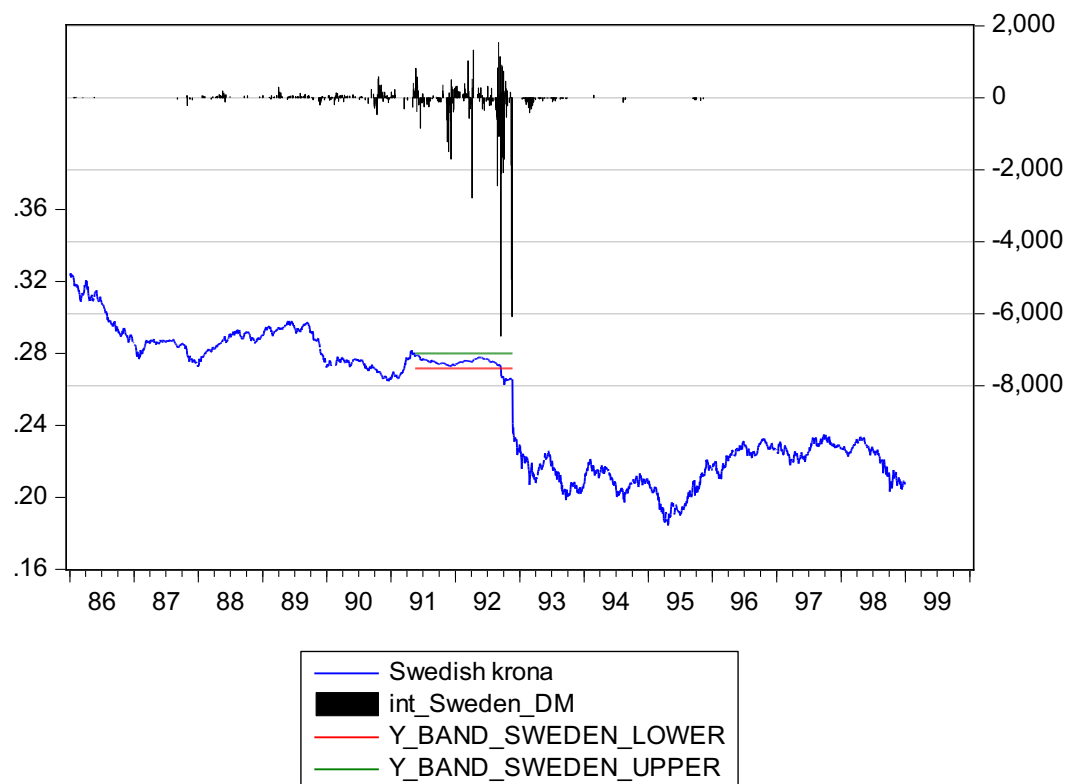


Figure B5. Italy

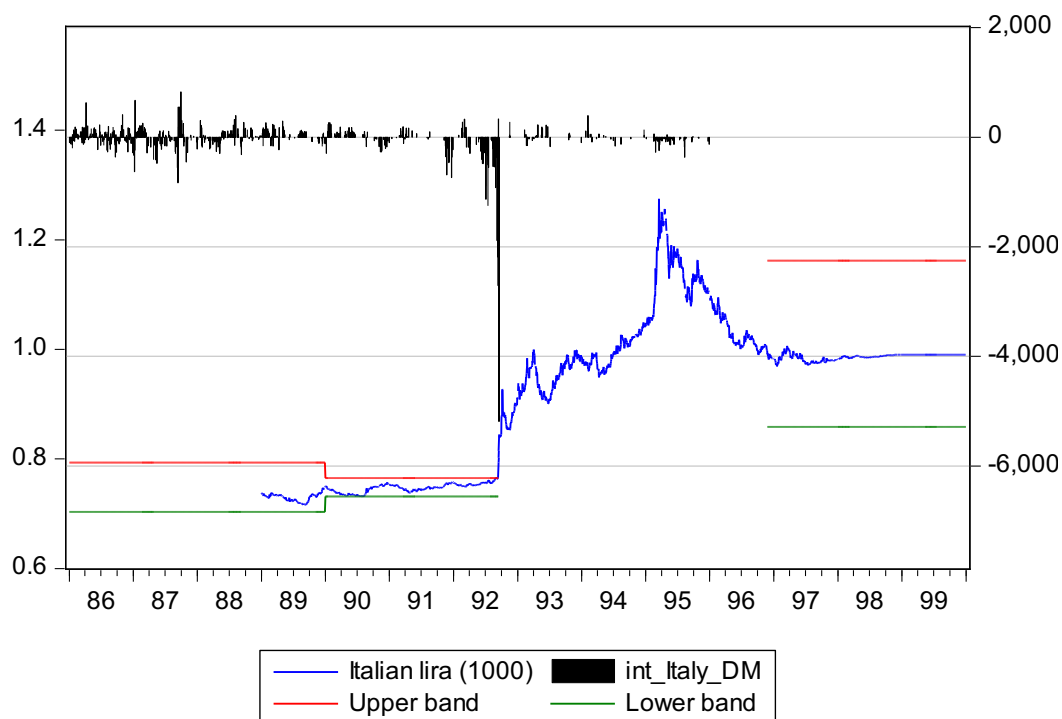
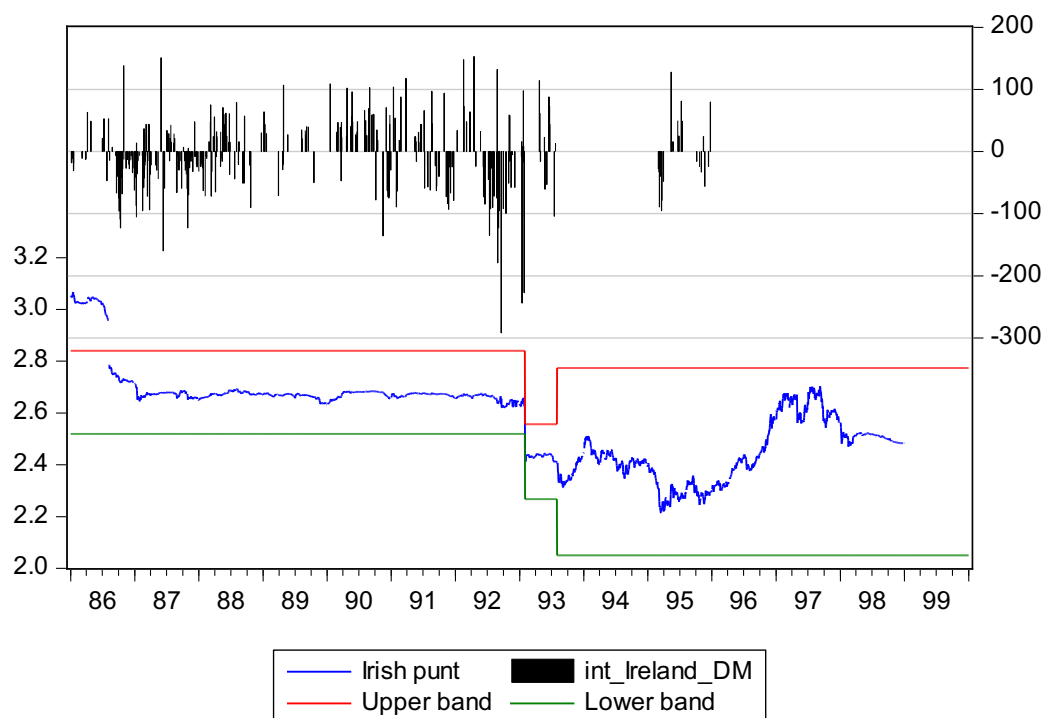


Figure B6. Ireland



Appendix C : DCC-MGARCH-X estimations output

```
Iteration 277: log likelihood = 13094.734
Iteration 278: log likelihood = 13094.735
Iteration 279: log likelihood = 13094.735
```

Refining estimates

```
Iteration 0:    log likelihood = 13094.735
Iteration 1:    log likelihood = 13094.735
```

Dynamic conditional correlation MGARCH model

```
Sample: 2 - 2608, but with gaps      Number of obs   =      2,505
Distribution: Gaussian                Wald chi2(.)     =      .
Log likelihood = 13094.74             Prob > chi2      =
```

		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
FFR_DM							
	_cons	.2951468	.0000825	3576.42	0.000	.2949851	.2953086
ARCH_FFR_DM							
	arch						
	L1.	1.067876	.0360197	29.65	0.000	.9972791	1.138474
	garch						
	L1.	.1096837	.0150853	7.27	0.000	.0801171	.1392503
	_cons	1.60e-07	1.68e-08	9.53	0.000	1.27e-07	1.93e-07
CFA_USD							
	_cons	.0031234	3.31e-06	944.64	0.000	.0031169	.0031298
ARCH_CFA_USD							
	arch						
	L1.	.8343014	.0404692	20.62	0.000	.7549832	.9136195
	garch						
	L1.	.3159086	.0242846	13.01	0.000	.2683116	.3635056
	_cons	3.86e-10	7.91e-11	4.88	0.000	2.31e-10	5.41e-10
INT_FRA_DM							
	_cons	2.848407	.5549449	5.13	0.000	1.760735	3.936079
ARCH_INT_FRA_DM							
	arch						
	L1.	.7354934	.0322313	22.82	0.000	.6723212	.7986657
	garch						
	L1.	.4455095	.008849	50.35	0.000	.4281658	.4628531
	_cons	23201.21	810.3646	28.63	0.000	21612.93	24789.5
EMP_FRA							
	_cons	-.1972521	.0119847	-16.46	0.000	-.2207417	-.1737625
ARCH_EMP_FRA							
	arch						
	L1.	.6957564	.0258815	26.88	0.000	.6450296	.7464832
	garch						
	L1.	.3965414	.0120918	32.79	0.000	.3728419	.4202408
	_cons	.0455306	.0028547	15.95	0.000	.0399355	.0511256
RATE_DIFF_FRA_GER							
	_cons	3.246605	.0031313	1036.83	0.000	3.240468	3.252742
ARCH_RATE_DIFF_FRA_GER							
	arch						
	L1.	1.055457	.0408111	25.86	0.000	.9754688	1.135445
	garch						
	L1.	.157062	.0198322	7.92	0.000	.1181916	.1959323
	_cons	.0083995	.0014032	5.99	0.000	.0056492	.0111497
corr(FFR_DM,CFA_USD)		.2515518	.05323	4.73	0.000	.1472228	.3558808
corr(FFR_DM,INT_FRA_DM)		.2077742	.0639385	3.25	0.001	.082457	.3330914
corr(FFR_DM,EMP_FRA)		-.2278085	.0476787	-4.78	0.000	-.321257	-.13436
corr(FFR_DM,RATE_DIFF_FRA_GER)		.0602876	.0515928	1.17	0.243	-.0408324	.1614077
corr(CFA_USD,INT_FRA_DM)		.7209592	.0430057	16.76	0.000	.6366695	.8052489
corr(CFA_USD,EMP_FRA)		-.1405983	.0389999	-3.61	0.000	-.2170368	-.0641599
corr(CFA_USD,RATE_DIFF_FRA_GER)		-.3772496	.0855644	-4.41	0.000	-.5449527	-.2095465
corr(INT_FRA_DM,EMP_FRA)		-.4534838	.0382735	-11.85	0.000	-.5284986	-.3784691
corr(INT_FRA_DM,RATE_DIFF_FRA_GER)		-.7510053	.0252552	-29.74	0.000	-.8005047	-.701506
corr(EMP_FRA,RATE_DIFF_FRA_GER)		-.0109485	.0407498	-0.27	0.788	-.0908167	.0689196
Adjustment							
	lambda1	.3121326	.0072063	43.31	0.000	.2980084	.3262568
	lambda2	.681327	.007382	92.30	0.000	.6668586	.6957954

The 1992-93 EMS Crisis and the South : Lessons from the Franc Zone System and the 1994 CFA Franc Devaluation

Iteration 42: log likelihood = 12966.087
Iteration 43: log likelihood = 12966.088

Refining estimates

Iteration 0: log likelihood = 12966.088
Iteration 1: log likelihood = 12966.088

Dynamic conditional correlation MGARCH model

Sample: 2 - 2608, but with gaps Number of obs = 2,505
Distribution: Gaussian Wald chi2(.) = .
Log likelihood = 12966.09 Prob > chi2 = .

		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
CFA_USD							
	_cons	.0031185	3.50e-06	890.95	0.000	.0031116	.0031253
ARCH_CFA_USD							
	arch						
	L1.	1.181568	.0302331	39.08	0.000	1.122312	1.240824
	garch						
	L1.	-.00047	.0010555	-0.45	0.656	-.0025388	.0015987
	_cons	6.76e-10	9.02e-11	7.49	0.000	4.99e-10	8.53e-10
FFR_DM							
	_cons	.2937274	.0000326	9007.74	0.000	.2936635	.2937913
ARCH_FFR_DM							
	arch						
	L1.	1.151019	.0320866	35.87	0.000	1.088131	1.213908
	garch						
	L1.	.0072005	.0054343	1.33	0.185	-.0034505	.0178516
	_cons	2.08e-07	1.50e-08	13.88	0.000	1.78e-07	2.37e-07
INT_FRA_DM							
	_cons	2.837921	.745074	3.81	0.000	1.377603	4.29824
ARCH_INT_FRA_DM							
	arch						
	L1.	.7289481	.029075	25.07	0.000	.6719622	.7859341
	garch						
	L1.	.4423077	.0085028	52.02	0.000	.4256425	.4589729
	_cons	20952.71	696.5283	30.08	0.000	19587.54	22317.88
EMP_FRA							
	_cons	-.2350996	.0080501	-29.20	0.000	-.2508775	-.2193217
ARCH_EMP_FRA							
	arch						
	L1.	.6772623	.0244689	27.68	0.000	.6293042	.7252204
	garch						
	L1.	.4005651	.0116309	34.44	0.000	.377769	.4233613
	_cons	.0389283	.0024813	15.69	0.000	.034065	.0437915
RATE_DIFF_FRA_GER							
	_cons	2.960458	.0232823	127.15	0.000	2.914825	3.00609
ARCH_RATE_DIFF_FRA_GER							
	arch						
	L1.	1.077856	.0368791	29.23	0.000	1.005574	1.150137
	garch						
	L1.	.0914074	.0181016	5.05	0.000	.055929	.1268859
	_cons	.034072	.0045835	7.43	0.000	.0250884	.0430556
	corr(CFA_USD, FFR_DM)	.5589567	.0304802	18.34	0.000	.4992166	.6186968
	corr(CFA_USD, INT_FRA_DM)	-.01237	.0426485	-0.29	0.772	-.0959596	.0712196
	corr(CFA_USD, EMP_FRA)	-.2262465	.0335257	-6.75	0.000	-.2919558	-.1605373
	corr(CFA_USD, RATE_DIFF_FRA_GER)	.7305387	.0341924	21.37	0.000	.6635229	.7975546
	corr(FFR_DM, INT_FRA_DM)	.080363	.0519945	1.55	0.122	-.0215443	.1822703
	corr(FFR_DM, EMP_FRA)	-.2336248	.039792	-5.87	0.000	-.3116157	-.155634
	corr(FFR_DM, RATE_DIFF_FRA_GER)	.4833613	.0426356	11.34	0.000	.3997971	.5669256
	corr(INT_FRA_DM, EMP_FRA)	-.732799	.02072	-35.37	0.000	-.7734095	-.6921885
	corr(INT_FRA_DM, RATE_DIFF_FRA_GER)	-.4493965	.0280209	-16.04	0.000	-.5043165	-.3944766
	corr(EMP_FRA, RATE_DIFF_FRA_GER)	-.1207621	.0392171	-3.08	0.002	-.1976261	-.043898
Adjustment							
	lambda1	.346563	.0100244	34.57	0.000	.3269155	.3662105
	lambda2	.6402971	.0105244	60.84	0.000	.6196696	.6609245

.

Appendix D : The Key leaders

Michel Camdessus, the former Managing Director of the International Monetary Fund (IMF), and Alassane D. Ouattara, the current President of Côte d'Ivoire and former Governor of the BCEAO, played central roles in the 1994 CFA franc devaluation. Camdessus held key positions, serving as the General Director of the French Treasury from 1982 to 1984, followed by his appointment as the Governor of the Banque de France from 1984 to 1987. He then assumed the role of Managing Director of the IMF from 1987 to 2000.

Alassane Ouattara's professional trajectory involved significant appointments between the IMF and the BCEAO from April 1968 to July 1999. He served as an Economist at the IMF in Washington, D.C. from April 1968 to August 1973. Later, he held roles such as Chargé de mission at the Paris Headquarters of BCEAO (August 1973 to February 1975), Special Advisor to the Governor and Director of Studies at BCEAO in Paris and Dakar (February 1975 to December 1982), Vice-Governor of BCEAO in Dakar (January 1983 to October 1984), Director of the African Department at the IMF in Washington, D.C. (November 1984 to October 1988), and Special Advisor to the IMF's Managing Director in Washington, D.C. (May 1987 to October 1988). Crucially, he served as the Governor of BCEAO in Dakar from October 1988 to December 1993. In addition to his BCEAO responsibilities, Ouattara was appointed by the late Ivorian President Félix Houphouët-Boigny as the Chairman of the Inter-ministerial Committee for the Coordination of the Stabilization and Economic Recovery Program of Côte d'Ivoire from April to November 1990. He then served as the Prime Minister of the Republic of Côte d'Ivoire and Head of Government from November 7, 1990, to December 9, 1993. Following this, he became the Deputy Managing Director of the IMF in Washington from July 1, 1994, to July 31, 1999, encompassing the period after the January 1994 CFA franc devaluation.

An insight look to Ouattara's professional career reveals two key points. First, his highest appointments at the IMF and at the BCEAO overlap with Camdessus's ones in the governance of the Banque de France on the one hand, and on the other hand as the Managing Director of the Fund, the latter being from 1987 to 1999. Secondly, it is crucial to highlight that, from 1990 to March 1994—*until the CFA Franc devaluation*—Ouattara concurrently held the positions of Governor of the BCEAO and Prime Minister of Côte d'Ivoire. This duality contradicts the standard political economy philosophy of an independent Central Bank and, more importantly, contravenes the statutes of the BCEAO (Article 58)³⁴. Archives from the Banque de France also unveiled permanently maintained phone contact between the French Treasury/the Banque de France and him (in this period), for the monetary policy management in the African side of the Franc Zone (see section 5.2.). In a 1989 newspaper article titled "*Misery plans, diktats, interference, Africa accuses the International Monetary Fund, its three highest leaders respond co-responsibility, and long-term vision*," published in 'Jeune-Afrique,' both Camdessus and Ouattara responded to criticisms of the IMF from Africa. They defended the Fund against accusations of being responsible for economic and social deterioration on the continent³⁵, emphasizing co-responsibility and a long-term vision.

³⁴ Banque de France archives (ABF) : 'Organisation administrative et modalités des opérations de la BCEAO : correspondance, notes...1955-1975, 'Statuts de la Banque Centrale des États de l'Afrique de l'Ouest (BCEAO), Entrés en vigueur le 1^{er} Novembre 1962, dossier Secrétariat du Comité Monétaire de la Zone Franc (CMZF)', (ABF, 1466200601/167).

³⁵ 'Jeune Afrique investigation ' « Plans misères », « diktats », « ingérences », l'Afrique accuse le Fonds Monétaire International, ses trois plus hauts dirigeants répondent « coresponsabilité » et « vision à long terme »' by Jean-Pierre Bejot, Archival sources of the Banque de France (ABF) : 'FMI, interventions dans les États africains de la Zone Franc : extraits de presse, notes ; organisation d'un séminaire sur la Zone Franc : note' 1981-1998, (ABF, 1466200601/441).

References

- Acemoglu, D. and J. Robinson (2012), *Why Nations Fail*, New York: New York.
- Acemoglu, D., S. Johnson and J. A. Robinson (2002), “Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution”, *Quarterly Journal of Economics*, 118, 1231-1294.
- Acemoglu, D. and J. Robinson (2017), ‘The economic impact of colonialism’, Vox EU Column, CEPR, Development, Economic History, Poverty and Income Inequality, January 30, 2017.
- Acemoglu, D., S. Johnson and J. A. Robinson (2001), “The Colonial Origins of Comparative Development: An Empirical Investigation”, *American Economic Review*, 91, 1369-1401.
- Acemoglu, D., S. Johnson and J. A. Robinson (2005), “The Rise of Europe: Atlantic Trade, Institutional Change and Economic Growth”, *American Economic Review*, 95, 546-579.
- Ajakaiye O., and S. A. O’Connell (2011) ‘Central Banking in Sub-Saharan Africa: Introduction and Overview’, *Journal of African Economies*, Vol. 20, AERC Supplement 2, pp. ii3–ii15.
- Alfaro, L. 2005. ‘The Monetary Geography of Africa, Paul R. Masson, Catherine Pattillo, Brookings Institution Press, Washington, DC (2005)’, *Journal of International Economics (JIE)*, Volume 67, Issue 2, December 2005, Pages 515-520, Book review.
- Amato, M., and K. Nubukpo (2020). ‘A new currency for West African states: The theoretical and political conditions of its feasibility’, *PSL Quarterly Review*, Vol. 73, No. 292, 2020, pp. 3-26.
- Antipa, P. & V. Bignon, 2018. ‘Whither Economic History? Between Narratives and Quantification,’ *Revue de l’OFCE*, N°157 (3), 17-36.
- Avaro, M., 2021. ‘Zombie International Currency: The Pound Sterling 1945-1971’, University of Pennsylvania and Swiss National Science Foundation, Working Paper, p. 57, October 2021.
- Avaro, M., 2024. ‘Zombie International Currency: The Pound Sterling 1945-1971’, *The Journal of Economic History*, Volume 84 / Issue 3, September 2024, pp 917 – 952. Published Online on 25 October 2024.
- Avom, D., 2020. ‘Zone franc : Fin et réincarnation - The Franc Zone : Its End and Reincarnation’, *Politique étrangère* N° 2/2020, pp. 115-127, Armand Colin.
- Bacchiocchi, E. 2017. ‘On the Identification of Interdependence and Contagion of Financial Crises’, *Oxford Bulletin of Economics and Statistics*, 2017, The Department of Economics, University of Oxford and John Wiley & Sons Ltd., p. 28.
- Balls, E., Howat, J., and A. Stansbury, 2018. ‘Central Bank Independence Revisited: After the financial crisis, what should a model central bank look like?’, Harvard Kennedy School, Mossavar-Rhamani Center for Business and Government, M-RCBG Associate Working Paper Series | No. 67, April 2018, 137p.
- Banque de France, 1956. ‘Annual report of the Franc Zone : ‘Quatrième rapport annuel du Comité Monétaire de la Zone Franc (CMZF)’, Secretariat General of the CMZF, Gallica.
- Banque de France, 1960. ‘Annual report of the Franc Zone : ‘La Zone Franc en 1960’, Secretariat of the Comité Monétaire de la Zone Franc (CMZF), Gallica.
- Banque de France, 1994. ‘Annual report of the Franc Zone : ‘La Zone Franc, Rapport 1994’, Paris: Banque de France.
- Banque de France, 2006. ‘Répertoire numérique détaillé’, Directorate of International and European Relations- Direction des relations internationales et européennes Service de la ZONE FRANC, 1466200601.
- Barro, R.J. and D.B. Gordon. 1981. “A Positive Theory of Monetary Policy in a Natural-Rate Model.” *Journal of Political Economy* 91(4): 589-610.
- Barro, R.J. and D.B. Gordon. 1983. “Rules, Discretion, and Reputation in a Model of Monetary Policy.” *Journal of Monetary Economics* 12(1): 101-21.
- BCEAO, 2019. ‘Chronologie des événements marquants de l’histoire de la BCEAO et de L’UMOA. - Chronology of key events in BCEAO and WAMU history’. Banque des Etats de l’Afrique de l’Ouest-BCEAO, 123p., December 2019.
- Beetsma, R. M. W. J., and H. Jensen, 1999. “‘Optimal Inflation Targets, ‘Conservative’ Central Banks, and Linear Inflation Contracts: Comment.” *American Economic Review*, Vol. 89, No.1, March 1999, pp. 342-347.
- BIS, 2011. ‘Central banking in Africa: prospects in a changing world’, Bank of International Settlements (BIS), BIS Papers No 56, Monetary and Economic Department, Edited by Dubravko Mihaljek, September 2011.
- Bordo, M. D. and W. Roberds, 2013. ‘The Origins, History, and Future of the Federal Reserve: A Return to Jekyll Island’, Cambridge University Press, April 2013.
- Bordo, M., Monnet, E., and A. Naef, 2017. ‘The Gold Pool (1961–1968) and the Fall of the Bretton Woods System: Lessons for Central Bank Cooperation’, NBER Working Papers Series, Working Paper 24016, November 2017.
- Bordo, M., Monnet, E., and A. Naef, 2019. ‘The Gold Pool (1961–1968) and the Fall of the Bretton Woods System: Lessons for Central Bank Cooperation’, *The Journal of Economic History*, Vol. 79, No. 4, 1027-1059, (December 2019).

- Bouvet, F., Bower, R., and Jones, J. C. (2022). 'Currency devaluation as a source of growth in africa: A synthetic control approach. *Eastern Economic Journal*, 48(3):367—389.
- Branson, W., 1993. 'Comment on 'the unstable EMS'. *Brookings Papers on Economic Activity* 1, 125–129.
- Buiter, W. H., Corsetti, G., and P. A. Pesenti, 2001. 'Financial Markets and European Monetary Cooperation: The Lessons of the 1992–93 Exchange Rate Mechanism Crisis'. Cambridge University Press, New York.
- Caporin, M., and M. McAleer (2012), 'Do we really need both BEKK and DCC? A Tale of Two Multivariate Garch Models', *Journal of Economic Surveys* (2012) Vol. 26, No. 4, pp. 736–751.
- Caporin, M., and M. McAleer (2013), 'Ten Things you should know about DCC', Tinbergen Institute Discussion Paper, No. 13-048/III, Tinbergen Institute, Amsterdam and Rotterdam.
- Caramazza, F., Ricci, L & R. Salgado (2004), "International financial contagion in currency crises", *Journal of International Money and Finance* 23 (2004) 51-70.
- Cloyne, James S. 2012. "Discretionary Tax Shocks in the United Kingdom 1945–2009: A Narrative Account and Dataset." <http://ideas.repec.org/e/pcl85.html>.
- Cloyne, James. 2011. "What are the Effects of Tax Changes in the United Kingdom? New Evidence from a Narrative Evaluation." CESifo Working Paper 3433.
- Cloyne, James. 2013. "Discretionary Tax Changes and the Macroeconomy: New Narrative Evidence from the United Kingdom", *American Economic Review*, 103(4): 1507–1528.
- CMZF, 1953. 'First annual report of the Franc Zone : 'Premier rapport annuel du Comité Monétaire de la Zone Franc (CMZF)', Imprimerie nationale, Paris.
- Cogneau, D. (2023). 'Un Empire bon marché : Histoire et économie politique de la colonisation française, XIXe-XXe siècle', Editions Seuil, January 2023.
- Cogneau, D., and G. Collange (1998). 'Les Effets à moyen terme de la dévaluation des francs CFA : une comparaison Cameroun - Côte-d'Ivoire', *Revue d'économie du développement* / 1998 / 6-3-4 / pp. 125-147.
- Cogneau, D., Herrera, J., and F. Roubaud, 1996. 'La dévaluation du franc CFA au Cameroun Bilan et perspectives', *Economies et Sociétés, Relations économiques internationales, Série P. n 33, 1/1996*, p. 169-203.
- Collier, P. and J. W. Gunning, (1999). 'Why has Africa grown slowly?', *Journal of Economic Perspectives*, 3, 3–22.
- Cottani, J., Cavallo, D. and S. Khan, 1990. 'Real exchange rate behavior and economic performance in LDCs', *Economic Development and Cultural Change*, 39, 61–76.
- D'Almeida, C. (1999). 'Le devenir du franc CFA, [The future of the CFA franc]', 2nd ed. Cotonou, Benin: éditions perspectives africaines.
- Davies, H. C., 2018. 'Transatlantic Speculations: Globalization and the Panics of 1873'. Columbia University Press, New York.
- Dembélé, D. M., K. Nubukpo, and M. Ze Belinga. (2015). 'Franc CFA : Les termes nouveaux d'une question ancienne', *Présence Africaine*, vol. 191, no. 1, 2015, pp. 237-250.
- Devarajan, S., 1997. 'Real Exchange Rate Misalignment in the CFA Zone'. *Journal of African Economies*, Vol. 6, No. 1, pp. 35-53, World Bank.
- Dieterlen, P., 1954. 'Quelques enseignements de l'évolution monétaire française de 1948 à 1952', Paris, A. Colin, In-8°, 232p., index. 750 fr. (Centres Etudes économiques, coll. « Etudes et mémoires », 19).
- Dillner, G. (2022), 'Exchange Rate Misalignment and Growth in Exports: Lessons from the 1994 CFA Franc Devaluation', Center for the Study of African Economies (CSAE), University of Oxford, Working Paper WPS/2022/12, September 2022, 35p.
- Doepke, M., and M. Schneider, (2017), "Money as a Unit of Account", *Econometrica*, 85, 1537–1574.
- Doghri, S., 1997. 'Les Effets de la Dévaluation sur les Pays de l'Afrique de l'Ouest - 'Devaluation effects on West Africa countries-', Research Report, Ecole Nationale Supérieure des Sciences de l'Information et des Bibliothèques, University Claude Bernard Lyon I, and Centre for International Trade, Geneva.
- Dossou-Cadja, R. and R. L. D'Ecclesia, 2024. 'Again Contagion: Africa in a Troubled World.' Preprint, Elsevier, The Social Sciences Research Network (SSRN) : <https://ssrn.com/abstract=4690902> or <http://dx.doi.org/10.2139/ssrn.4690902>
- Dossou-Cadja, R., 2024. 'The 1992-93 EMS Crisis and the South: Lessons from the Franc Zone System and the 1994 CFA Franc Devaluation', <https://ideas.repec.org/p/hes/wpaper/0246.html>
- Dossou-Cadja, R., 2024. "The 1992-93 EMS Crisis and the South: Lessons from the Franc Zone System and the 1994 CFA Franc Devaluation," Working Papers 0246, European Historical Economics Society (EHES).
- Dossou-Cadja, S.C.R and R. L., D'Ecclesia (2022), 'A Treatise on Financial Crisis Contagion: The case of African Securities Exchanges', Department of Statistics (DSS)-Sapienza University of Rome (Italy), Working Paper Series, E-ISSN: 2279-798X, Publication code: 9, July 2022, pp 1-28.
- Dufour J-M., and A. Taamouti, 2010. 'Short and long run causality measures: Theory and inference', *Journal of Econometrics*, 154 (2010) 42–58. Doi:10.1016/j.jeconom.2009.06.008

- Dufour J-M., R. Garcia, and Taamouti, A., 2012. 'Measuring High-Frequency Causality Between Returns, Realized Volatility, and Implied Volatility', *Journal of Financial Econometrics*, 2012, Vol. 10, No. 1, 124–163.
- Dufrénot, G., and K. Sugimoto, 2013. 'West African Single Currency and Competitiveness', *Review of Development Economics*, Volume 17, Issue 4, pp. 763-777, 2013.
- Ebatamehi, B., 2022. 'How French Currency Imperialism in Africa Led to the Assassination of Muammar Gaddafi', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 889–904.
- Eben, S., M-E, Etogho, E.B.A., Dalton, A.L., and C., W., Cobb, 2022. 'Editors' Introduction: Exposing and Opposing French Colonialism in Africa', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 811–827.
- Eben, S., M-E., and A. L., Dalton, 2022. 'The Geopolitics of French Wars in Africa: What Can Be Done?', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 957–976.
- ECLAC, 1996. 'The Economic Experience of the Last Fifteen Years: Latin America and the Caribbean 1980–1995'. ECLAC, Santiago.
- Eichengreen, B., and A. Naef, 2020. 'Imported or Home Grown? The 1992-3 EMS Crisis', *Banque de France-Eurosystem, Working Paper, WP #793*, December 2020, 46 p.
- Eichengreen, B., and A. Naef, 2021. 'Imported or Home Grown? The 1992-3 EMS Crisis', *National Bureau of Economic Research (NBER), Working Paper 29488*, November 2021, 53p.
- Eichengreen, B., and A. Naef, 2022. 'Imported or Home Grown? The 1992-3 EMS Crisis', *Journal of International Economics*, 138, 19 p.
- Eichengreen, B., and C. Wyplosz, 1993. 'The unstable EMS'. *Brookings Papers on Economic Activity* 1, 51–143.
- Eichengreen, B., Rose, A., and C. Wyplosz, 1995. Exchange market mayhem: the antecedents and aftermath of speculative attacks. *Econ. Policy* 10, 249–312.
- Engle, R. F. (2002) "Dynamic Conditional Correlation-Simple Class of Multivariate GARCH Models". *Journal of Business and Economic Statistics*, Vol. 20, No. 3 (Jul. 2002), pp. 339-350 (12 pages).
- Engle, R. F., and C. W. J. Granger, 1987. "Co-Integration and Error Correction: Representation, Estimation, and Testing", *Econometrica (Journal of The Econometric Society)*, Mar 1987, Vol. 55, No. 2, pp. 251-276.
- Engle, R., F., Cappiello, L., & K. Sheppard (2006), "Asymmetric Dynamics in the Correlations of Global Equity and Bond Returns", *Journal of Financial Econometrics*, vol. 4, no 4, pages 537-572.
- Etogho, E.B.A., Eben, S., M-E., and A. L., Dalton, 2022. 'French Neocolonialism in Africa: Historical Overview and Summary of Current Events', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 829–849.
- Fed, 2021. 'The International Role of the U.S. Dollar', Board of Governors of the Federal Reserve System, FEDS Notes, 6 October 2021.
- Fedderke, W. J., and M. Marinkov. 2016. 'Diagnosing the Source of Financial Market Shocks : An Application to the Asian Subprime and European Financial Crises', *Pacific Economic Review*, pp1-36.
- Feiertag, O., 2013. 'La France, le Dollar et l'Europe (1981-1989). Aux Origines Globales de l'Euro', *Centre d'histoire de Sciences Po, Histoire@Politique*, 2013/1 n°19, pp. 128-142.
- Feiertag, O., 2020. 'La Zone de Franc de 1945 à nos Jours : Echapper au Triangle d'Incompatibilité de Mundell', *L'Harmattan, Revue Française d'Histoire Economique*, 2020/2 N°14, pp. 38-49.
- Fisher, I. (1911). *The Purchasing Power of Money*. 2nd Edition, Macmillan Co., New York.
- Flandreau, M., 1996. 'The French Crime of 1873: An Essay on the Emergence of the International Gold Standard, 1870–1880', *The Journal of Economic History*, Volume 56 , Issue 4 , December 1996 , pp. 862 - 897
- Flandreau, M., 2006. 'Money Doctors: The Experience of International Financial Advising 1850-2000', *Routledge International Studies in Money and Banking*, 1st Edition.
- Fleming, M., 1962, "Domestic Financial Policies under Fixed and Floating Exchange Rates," *IMF Staff Papers* 9, pp. 369–379, (Washington D.C.: International Monetary Fund).
- Forbes, K. & Rigobon, R, (2000). Contagion in Latin America: Definitions, Measurement, and Policy Implications. NBER Working Paper No. 7885. Issue, September 2000. NBER Program(s): IFM.
- Forbes, K. & Rigobon, R, 2001. 'Contagion in Latin America: Definition, Measurement, and Policy Implications', *Mit-Sloan school of management and NBER*, January 17.
- Forbes, K. & Rigobon, R, 2002. 'No Contagion, Only Interdependence: Measuring Stock Market Comovements', *The Journal of Finance* Volume 57, Issue 5, Oct 2002, Pages i-vi, 1857-2374, vii-cii.
- Fornaro, L. (2022), 'A Theory of Monetary Union and Financial Integration', *Review of Economic Studies*, 89, 1911–1947.
- Frankel, J., 1999. 'No single currency regime is right for all countries or at all times', *Essays in International Finance*, vol. 215. Princeton University Press.

- Frankel, J., and A., Rose, 1998. 'The endogeneity of optimum currency area criteria', *The Economic Journal*, 108, 1009–1025.
- French Treasury, 2019. 'La Zone franc de 1939 à aujourd'hui - *The Franc Zone from 1939 to today* -', Direction générale du Trésor (DGT), Official website, 26-September 2019.
- Friedman M. and A. Schwartz, 1963, *A Monetary History of the United States*, Princeton University Press, Princeton.
- Friedman M., 1990, "The Crime of 1873", *Journal of Political Economy* 98(6), p. 1159-94.
- Friedman, M. (1953), "The Case for Flexible Exchange Rates", *Essays in Positive Economics*, 157–203.
- Friedman, M. (1956) *The Quantity Theory of Money: A Restatement*. In: Friedman, M., Ed., *The Optimum Quantity of Money*, Aldine Publishing Company, Chicago, 3-41.
- Froot , K. A., and K. Rogoff, 1992. 'The EMS, the EMU, and the Transition to a Common Currency', *NBER Macroeconomics Annual 1991*, Volume 6, eds. O.J. Blanchard and S. Fischer , Cambridge: MIT Press, January 1992.
- Garretsen, H., Knot, K., and E. Nijse, 1998. 'Learning about Fundamentals: The Widening of the French ERM Bands in 1993', *Weltwirtschaftliches Archives*, 1998, Bd. 134, H. 1 (1998), pp. 25-41, Springer.
- Ghura, D. and T. Grennes (1993). 'The real exchange rate and macroeconomic performance in sub-Saharan Africa', *Journal of Development Economics*, 42, 155–74.
- Glaser, A. (2014). 'Africafrance: Quand les dirigeants africains deviennent les maîtres du jeu', Paris: Fayard.
- Glaser, A., and S. Smith. (1992). 'Ces messieurs Afrique : le Paris- village du continent noir', Paris : Calmann-Lévy.
- Glaser, A., and S. Smith. (1997). 'Ces messieurs Afrique 2 : des réseaux aux lobbies', Paris : Calmann-Lévy.
- Goodhart, C. J., 2010. 'The Changing Role of Central Banks', Bank of International Settlements (BIS), BIS Papers No 56, Monetary and Economic Department, BIS Working Papers No 326, November 2010.
- Goodhart, C., and M. Pradhan (2021). 'What May Happen When Central Banks Wake up to more Persistent Inflation?', *VOX EU VOXEU Column*, Monetary Policy, CEPR, 25 October 2021.
- Goodhart, C., and R. Lastra (2017), 'Populism and Central Bank Independence', *Open Economies Review*, pp 1-20
- Goodhart, C., and R. Lastra (2018), 'Potential threats to central bank independence, Vox-CEPR discussion paper.
- Guajardo, Jamie, Daniel Leigh, and Andrea Pescatori. 2011 "Expansionary Austerity: New International Evidence." IMF Working Paper 2011/158.
- Guillaumont-Jeanneney, S., 2006. 'Independence of the Central Bank of West African States: An Expected Reform ?', *Revue d'économie du Développement*, 2006/5, Vol. 14 | pp. 43-73.
- Guillaumont, P., and S. Guillaumont Jeanneney, 2017. 'Franc Zone, in retrospect and prospect', *Revue d'économie du développement*, 2017/2, Vol. 25, p. 5-40.
- Halasi, A., 1942. 'International Monetary Cooperation', *The Johns Hopkins University Press, Social Research*, May 1942, Vol. 9, No. 2 (May 1942), pp. 183-203.
- Ilzetzki, E., C. M. Reinhart, and K. S. Rogoff. 2022. "Rethinking Exchange Rate Regimes." *Handbook of International Economics 6*, edited by Gita Gopinath, Elhanan Helpman, and Kenneth S. Rogoff, 91-145. Elsevier: North Holland.
- Ingram, J. C. (1973), "The Case for European Monetary Integration" (*Princeton University Essays in International Finance*).
- Jácome, L.I., 2015. 'Central Banking in Latin America: From the Gold Standard to the Golden Years', *Monetary and Capital Markets Department, IMF Working Paper*, WP/15/60, pp. 1-57, International Monetary Fund: Washington, DC.
- Jacquemot, P., 2017. "Le procès de la Zone franc. Arguments, contre- arguments et voies d'évolution." *Mondes en développement* 4(180) : 121–140.
- James, E., 1956. 'Dieterlen (Pierre) - Quelques enseignements de l'évolution monétaire française de 1948 à 1952', *Revue économique*, volume 7, n°4, 1956. pp. 681-683.
- Kabou, A. 2010. 'Comment l'Afrique en est Arrivée là ? - *How Did Africa Get Here?* - ', L'Harmattan Ed., 2010, Paris.
- Kaminsky, G. L. & C. M., Reinhart, 2000, 'On crises, contagion and confusion', *Journal of International Economics*, vol. 51, pp. 145-168.
- Kaminsky, G., and C. Reinhart, 2000. 'On crises, contagion and confusion'. *Journal of International Economics*, 51, 145–168.
- Ketz, P. 2022. 'Allowing for weak identification when testing GARCH-X type models', *Cornell University*, [arXiv:2210.11398v1](https://arxiv.org/abs/2210.11398v1) [econ.EM], 29 p.
- Keynes, J. M. (1930), *A Treatise on Money* (London: Macmillan).
- Keynes, J. M. (1936). 'The General Theory of Employment, Interest, and Money' London: Macmillan.
- Kydland, F.E. and E.C. Prescott. 1977. "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85(June): 473–92.
- Lucas, R. E., Jr. (1976). 'Econometric Policy Evaluation: A Critique', *Carnegie-Rochester Conference Series on Public Policy*, Elsevier, vol. 1(1), pp. 19-46, January.

- Lutfalla, M., and M. Flandreau (2005). 'Les 'Money Doctors' au Chevet des Etats Faillis', *Alternatives économiques / « L'économie politique »*, 2005/3 N°27 | pp. 108-112.
- Masson, P. R., and C. A. Pattillo. (2005). 'The Monetary Geography of Africa', Washington, DC: Brookings Institution Press.
- Minsky, H.P. (1960). 'The Pure Theory of Banking,' University of California Department of Economics, Fall Semester.
- Miranda-Agrippino, S. and H. Rey (2022); 'The Global Financial Cycle', *Handbook of International Economics* 5, London Business School, pp. 1-54.
- Mitchener, K., and M. Weidenmier, 2008. 'The Baring Crisis and the great Latin American meltdown of the 1890s', *Journal of Economic History*, 68, 462–500.
- Monnet, E. 2012. 'Monetary Policy without Interest Rates. Evidence from France's Golden Age (1948–1973) Using a Narrative Approach.' *European Historical Economics Society (EHES) Working Paper* 32.
- Monnet, E. 2014. 'Monetary Policy without Interest Rates: Evidence from France's Golden Age (1948 to 1973) Using a Narrative Approach: Dataset.', *American Economic Journal: Macroeconomics*; 6(4): 137–169.
- Monnet, E. 2021. 'La Banque Providence : Democratiser les Banques Centrales et la Monnaie', *La République des Idées*, Editions Seuil, 106 p.
- Monnet, E. 2024. 'Balance of Power: Central Banks and the Fate of Democracies', University of Chicago Press (April 2024).
- Monnet, E., Naef, A., Macaire, C., Mehl, A. and B. Eichengreen, 2022. 'The renminbi's unconventional route to reserve currency status', *European Central Bank (ECB), The International role of the euro*, June 2023.
- Monnet, E., Naef, A., Macaire, C., Mehl, A. and B. Eichengreen, 2023. 'Internationalization of the renminbi and capital account openness', *Vox EU, Discussion Note*, 31 October 2022.
- Mosley, P., Subasat, T., and J. Weeks, (1995). 'Assessing Structural Adjustment in Africa', *World Development*, Vol. 23, No. 9, pp. 1459-1473.
- Mundell, R. A. (1961), "A Theory of Optimum Currency Areas", *American Economic Review*, 51, 657–665.
- Mundell, R. A. (1963). 'Capital Mobility and Stabilization Policy under Fixed and Flexible Exchange Rates,' *Canadian Journal of Economic and Political Science*, No. 29(4), pp. 475–85.
- Mundell, R., 1972. 'African trade, politics and money', In: Temblay, Rodrigue (Ed.), *Africa and Monetary Integration*, Les Editions HRW, Montreal.
- Mundell, R., 2002. 'Does Africa need a common currency', *Defining Priorities for Regional Integration*, UN Economic Commission for Africa, Addis Ababa.
- Nganang, P. 2022. 'The Amba Uprising: Beyond France's Plantation Economy', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November 2022), pp. 905–926.
- Njoh, A., J., 2022. 'Fairness, Equity, and Justice Implications of French-Influenced Environmental Policy in Africa', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 927–957.
- Njoroge P., and V. Murinde (2021), '50 Years of Central Banking in Kenya', Oxford University Press.
- Nkwatoh, L. S., and K. Cornelius, 2019. 'Is the CFA Franc Prone to Speculative Attacks or Contagion Effect: A Stochastic-Markov Transition Analysis for Cameroon'. *Central Bank of Nigeria (CBN) Journal of Applied Statistics*, Vol. 10 No. 1, (June, 2019), 97-117.
- Nubukpo, K. (2007). 'Politique monétaire et servitude volontaire : La gestion du franc CFA par la BCEAO' ["Monetary Policy and Voluntary Bondage : Management of the CFA Franc by the BCEAO"], *Politique africaine* 105(1) : 70–84.
- Nubukpo, K. (2020). 'The Eco and the CFA Franc: Four Weddings and a Funeral', *Africa Report* January 23.
- Nubukpo, K., (2021a). 'Du franc CFA à l'éco en Afrique de l'Ouest', *Études*, vol., no. 3, 2021, pp. 19-32.
- Nubukpo, K., (2021b). 'Chapitre 3. La Zone franc et le franc CFA : retour sur un contentieux économique et politique', Martine Boudet éd., 'Résistances africaines à la domination néocoloniale'. Éditions du Croquant, 2021, pp. 65-77.
- Nubukpo, K., Ze Belinga, M., Tinel, B., and D. M. Dembélé, (2016), 'Sortir l'Afrique de la servitude monétaire. À qui profite le franc CFA ?' Paris, Ed. La Dispute, 2016, 243 p., ISBN : 978-2-84303-280-6.
- Nyamunda, T., 2017. 'British Sterling Imperialism, Settler Colonialism and the Political Economy of Money and Finance in Southern Rhodesia, 1945 to 1962', *African Economic History*, Volume 45, Number 1, Jan. 2017, pp. 77-109.
- Obstfeld, M., and K. Rogoff, 1995. 'Exchange Rate Dynamics Redux', *Journal of Political Economy*, Volume 103, Number 3, Jun. 1995.
- Oxfam. 1993. "Africa, Make or Break: Action for Recovery.I Oxford, England: Oxfam
- Parmentier, J.M. and R. Tenconi. 1996. 'Zone Franc en Afrique : Fin d'une ère ou renaissance?', Paris et Montréal : L'Harmattan.
- Pérez, F. J., 2022. 'An Enduring Neocolonial Alliance: A History of the CFA Franc', *American Journal of Economics and Sociology*, Vol. 81, No. 5 (November, 2022), pp. 851–887.

- Pesenti, P., and C. Tille, 2000. 'The economics of currency crises and contagion: an introduction'. Federal Reserve Bank New York Economic Policy Review, September, 3–16.
- Pigeaud, F., and N. S. Sylla. (2021). 'Africa's Last Colonial Currency: The CFA Franc Story', Trans. Thomas Fazi, London: Pluto Press.
- Piketty, T. and J. Cagé, 2023. 'Une histoire du conflit politique Elections et inégalités sociales en France, 1789-2022'. Éditions du Seuil, September 2023.
- Pouemi, J. T., (2000). Monnaie, servitude et liberté. Paris: Menaibuc.
- Ramey, Valerie A. 2011. "Identifying Government Spending Shocks: It's All in the Timing." Quarterly Journal of Economics 126 (1): 1–50.
- Ramey, Valerie A., and Matthew D. Shapiro. 1998. "Costly Capital Reallocation and the Effects of Government Spending." Carnegie Rochester Conference Series on Public Policy 48: 145–94.
- Reinhart C. and K. Rogoff, 2011, This Time is Different: Eight Centuries of Financial Folly, Princeton, Princeton University Press.
- Reinhart, C.M., and K. Rogoff, 2004. 'The modern history of exchange rate arrangements: a reinterpretation'. Quarterly Journal of Economics 119, 1–48.
- Rey, H. (2001), "International Trade and Currency Exchange", Review of Economic Studies, 68, 443–464.
- Rey, H. (2013), 'Dilemma not trilemma: the global financial cycle and monetary policy independence,' Technical report, Proceedings - Economic Policy Symposium - Jackson Hole.
- Rey, H. (2016), 'International Channels of Transmission of Monetary Policy and the Mundellian Trilemma,' IMF Economic Review, Vol. 64, No. 1, pp. 6–35, May.
- Rickards, J., 2011. 'Currency Wars: The Making of the Next Global Crisis', Penguin Publishing Group, National Bestseller, USA.
- Roberds, W. and F. Velte, 2016a. 'Early Public Banks I: Ledger-Money Banks', in Money in the Western Legal Tradition, 2016, edited by Wolfgang Ernst and David M. Fox, Oxford University Press, pp. 321–358.
- Roberds, W. and F. Velte, 2016b. 'Early Public Banks II: Banks of Issue', in Money in the Western Legal Tradition, 2016, edited by Wolfgang Ernst and David M. Fox, Oxford University Press, pp. 359–386.
- Roberds, W. and S. Quinn, 2007. 'The Bank of Amsterdam and the Leap to Central Bank Money', American Economic Review (papers and proceedings), 97(2): 955–978.
- Roberds, W. and S. Quinn, 2015a. 'Responding to a Shadow Banking Crisis: The Lessons of 1763', Journal of Money, Credit, and Banking, 47(6): 1149–1176.
- Roberds, W. and S. Quinn, 2015b. 'How Amsterdam Got Fiat Money,' with Stephen Quinn, 2014, Journal of Monetary Economics, 66(C): 1–12.
- Roberds, W. and S. Quinn, 2016. 'Death of a Reserve Currency', International Journal of Central Banking, 2016, 12(4): 63–103.
- Roberds, W. and S. Quinn, 2018. 'The Bank of Amsterdam's Search for Success and Stability', in Financial Innovation and Resilience: A Comparative Perspective on the Public Banks of Naples (1462–1808), edited by Lilia Costabile and Larry Neal, Springer Verlag, pp. 289–10.
- Roberds, W. and S. Quinn, 2019. 'A Policy Framework for the Bank of Amsterdam, 1736–1791', Journal of Economic History, 2019, 79(3): 736–772.
- Roberds, W. and S. Quinn, 2024. 'How a Ledger Became a Central Bank: A Monetary History of the Bank of Amsterdam'. Cambridge University Press, April 2024.
- Rogoff, K. 1985. "The Optimal Degree of Commitment to an Intermediate Monetary Target." Quarterly Journal of Economics 100(4): 1169–89.
- Rogoff, K., 2021. "Risks to Central Banks Independence", *Independence, Credibility and Communication of Central Banking*, edited by Ernesto Pastén and Ricardo Reis. Santiago: Central Bank of Chile, p.28.
- Rogoff, K., 2022. 'Rethinking Central Bank Design.' Harvard University, Karl Brunner, and Monetarism, edited by Thomas Moser and Marcel Savioz, March 2022: pp 89-125. Cambridge: MIT Press.
- Romer, Christina D., and David H. Romer. 1989. "Does Monetary Policy Matter? A New Test in the Spirit of Friedman and Schwartz." NBER Macroeconomic Annual 4: 121–70.
- Romer, Christina D., and David H. Romer. 2004. "A New Measure of Monetary Shocks: Derivation and Implications." American Economic Review 94 (4): 1055–84.
- Romer, Christina D., and David H. Romer. 2009. "Do Tax Cuts Starve the Beast? The Effect of Tax Changes on Government Spending." Brookings Papers on Economic Activity: 139–200.
- Romer, Christina D., and David H. Romer. 2010. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." American Economic Review 100 (3): 763–801.
- Schenk, C., (2010). 'The Decline of Sterling. Managing the Retreat of an International Currency', Cambridge, Cambridge

- University Press, 2010.
- Schenk, C., (2021). 'International Economic Relations since 1945', 2nd Edition, Routledge, June 2021.
- Schiller R., 2017, "Narrative Economics", American Economic Review, Vol. 107, No. 4, April 2017, pp. 967-1004.
- Sénat (2020). 'Rapport d'Information fait au nom de la Commission des finances sur le franc CFA', by Goulet N. and V. Lurel, The French Senat, N° 729, Extraordinary session of 2019-2020, 30 September 2020.
- Singaravélou, P., Asseraf, A., Blanc, G., Kisukidi, N.,Y., and M. Lamote, 2023. 'Colonisations Notre histoire - *'Colonialisms Our History'*, Éditions du Seuil, *'Sciences humaines Histoire, L'Univers historique'*, September 2023, Paris.
- Stary, B., 1995. 'Dévaluation du CFA et flux transétatiques en Afrique de l'Ouest : exemple de la frontière entre la Côte d'Ivoire et le Ghana', Post-printed, Talence : Centre d'étude d'Afrique noire, 1995.
- Stein, H., and M. Nissanke (1999). 'Structural Adjustment and the African Crisis: A Theoretical Appraisal', Eastern Economic Journal, Vol. 25, No. 4, Symposium: Liberalization and Crisis in Developing and Transitional Economies (Fall, 1999), pp. 399-420.
- Stiglitz, J., 1998a. 'More Instruments and Broader Goals: Moving Towards the Post-Washington Consensus', UNU/WIDER Annual Lectures, Helsinki, 8 January 1998. 4.
- Stiglitz, J., 1998b. 'Towards a New Paradigm for Development: Strategies, Policies, and Processes', the 1998 Prebisch Lecture at UNCTAD, Geneva, October 19, 1998b.
- Svensson, L.E.O. 1996. 'Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets. NBER Working Papers No. 5797, October 1996.
- Svensson, L.E.O., 1997a. 'Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets.' European Economic Review, 41, pp. 1111-1146.
- Svensson, L.E.O., 1997b. 'Optimal Inflation Targets, "Conservative" Central Banks, and Linear Inflation Contracts', American Economic Review, Vol. 87, No. 1 (Mar., 1997), pp. 98-114.
- Taylor, J. 1993. "Discretion versus Policy Rules in Practice." Carnegie Rochester Conference Series on Public Policy 39:195-214.
- Tchatchouang, J.-C., (2015). 'The CFA Franc Zone: A Biography.' In The Oxford Handbook of Africa and Economics, Vol. 2: Policies and Practices. Eds. Célestin Monga and Justin Yifu Lin. Oxford, UK: Oxford University Press.
- Tietmeyer, H., 1998. 'Financial crisis management in the EU/ERM'. In: Rehman, Scheherazade (Ed.), Financial Crisis Management in Regional Blocs. Kluwer Academic Publishers, Boston, pp. 39-54.
- Tucker, P. (2020). 'On Central Bank Independence' Finance & Development, International Monetary Fund (IMF), June 2020, pp 1-4.
- Tucker, P. 2018. Unelected Power: The Quest for Legitimacy in Central Banking and the Regulatory State. Princeton, NJ: Princeton University Press
- Vallée, O., 1989. 'Le Prix de l'argent CFA : Heurs et Malheurs de la Zone Franc- *The Price of the CFA money : Fortunes and Misfortunes of the Franc Zone*', Editions Karthala/ « Les Afriques ».
- Wauthier, C., 1972. 'France and Africa: "Long Live Neo-Colonialism', A Journal of Opinion, Spring, 1972, Vol. 2, No. 1, pp. 23-26, Cambridge University Press.
- Werner, A., R., (2002). 'Monetary Policy Implementation in Japan: What They Say versus What They Do', Asian Economic Journal 2002, Vol. 16 No. 2, 111-151.