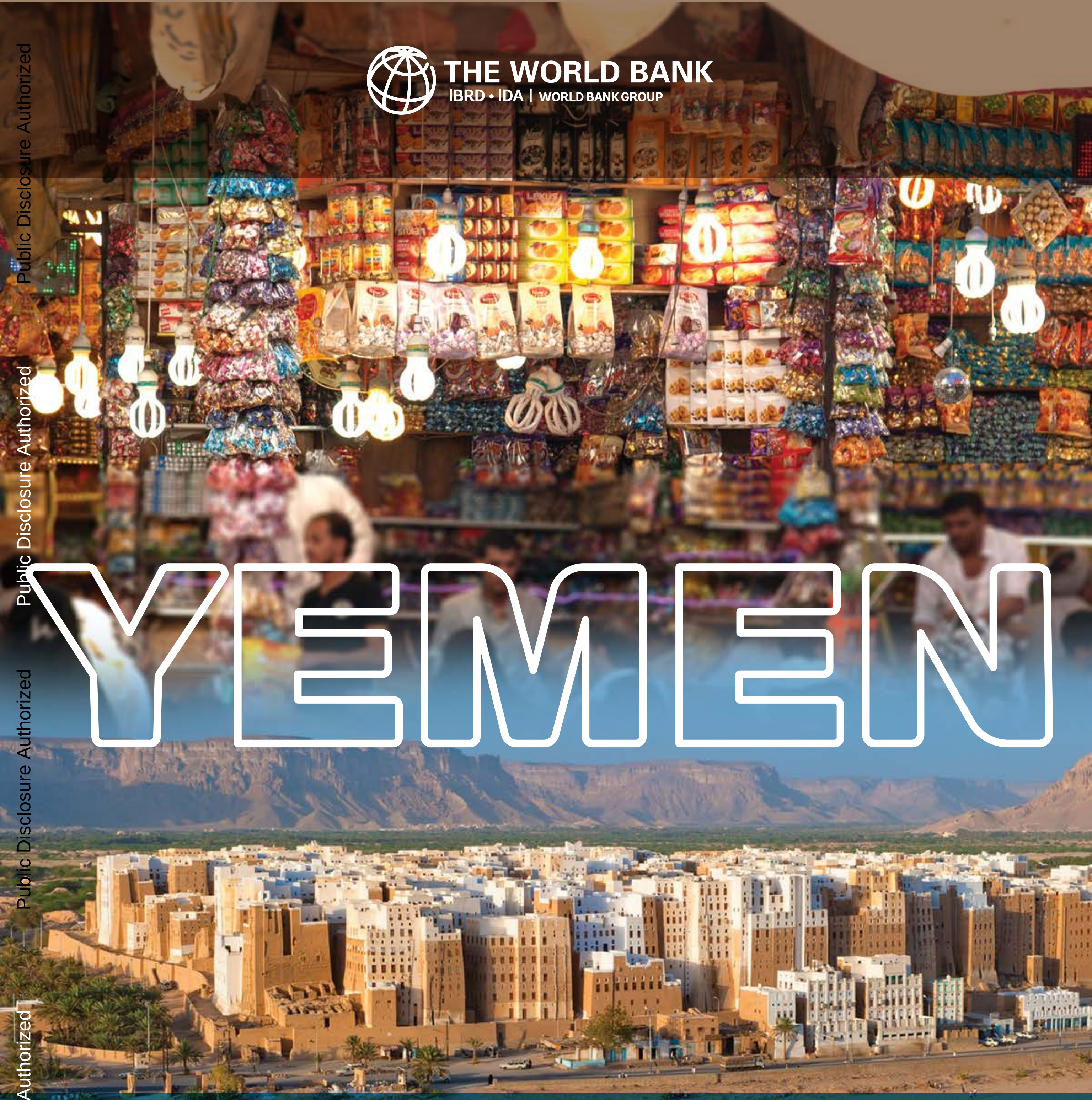
THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



YEMEN

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

YEMEN FINANCIAL SECTOR DIAGNOSTICS

FINANCE, COMPETITIVENESS AND INNOVATION GLOBAL PRACTICE MIDDLE EAST AND NORTH AFRICA REGION

1818 H Street NW
Washington, DC 20433
USA

Regional Vice President: Ferid Belhaj

Country Director: Stephane Guimbert

Regional Director: Nadir Mohammed

Global Director: Jean Pesme

Practice Manager: Djibrilla Iss Djibrilla Issa

YEMEN FINANCIAL SECTOR DIAGNOSTICS

April 5, 2024

Finance, Competitiveness, and Innovation Global Practice
Middle East and North Africa Region

Yemen
GOVERNMENT FISCAL YEAR

January 1 – December 31

YEMEN FUND
RESILIENCE, RECOVERY AND RECONSTRUCTION

UKaid
from the British people

Kingdom of the Netherlands

This report was co-financed by the Yemen Resilience, Recovery, and Reconstruction Trust Fund (also known as Yemen Fund), which was established by the World Bank in 2022, with the United Kingdom's Foreign, Commonwealth and Development Office (FCDO) as a seed contributing partner, to support Yemen's transition over a 10-year horizon. The entire World Bank team would like to express their sincere gratitude for this important and timely contribution.

Table of Contents

BOXES

FIGURES

TABLES

Acknowledgments

This report was prepared by a World Bank team led by Mario di Filippo (Senior Financial Sector Specialist, EMNF1), and composed of Enagnon Adda (Senior Public Sector Specialist, EMNGU), Alain Aeschlimann (ET Consultant, GTFS2), Safa Al Moayad (Consultant, EMNPV), Helen Grandvoinnet (Lead Public Sector Specialist, EGVPF), Ailsa Hart (Senior Financial Sector Specialist, EFNFS), Randy Kotti (Consultant, EMNF1), Davide Mare (Economist, DECEA), Yomna Moheieldin (Consultant, EMNF1), Juul Pinxten (Economist, HMNSP), and Sonia Plaza (Senior Economist, ETIDR).

The report was informed by discussions with the authorities and other stakeholders held virtually and in person in Amman, Jordan during May 23-25, 2023. Participants included the Central Bank of Yemen-Aden, the Yemen Banks Association in Aden, the Yemeni Exchangers Association in Aden, several Yemeni financial intermediaries, the Small and Microenterprise Development Unit of the Yemen Social Fund for Development. The team is particularly grateful to the latter's Small and Micro Enterprise Promotion Service for its instrumental role in providing advice and arranging these meetings. The findings of the report were validated through a workshop with the Central Bank of Yemen-Aden, held on July 1–2, 2024.

The team would like to express its sincere gratitude to the Central Bank of Yemen-Aden for its valuable inputs, data, and cooperation during the research and validation phases of the report. Special thanks are due to Ahmed Ghalib (Governor of Central Bank of Yemen-Aden), Mansour Rageh (Deputy Governor of the Central Bank of Yemen-Aden for Banking Supervision) and to the Central Bank of Yemen-Aden's Banking Supervision team (Hani Beshr, Magdaleen Alyafeai and Ahmed Albarakani), who provided crucial original data on money exchangers in Yemen.

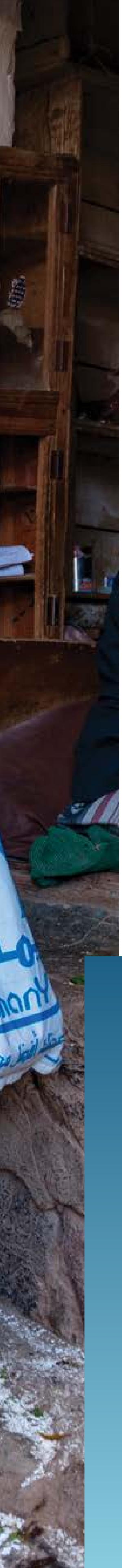
The report greatly benefited from collaboration with the World Bank's Middle East and North Africa Poverty Global Practice and Governance Global Practice. In particular, the team wishes to thank Alia Aghajanian (Senior Economist, EMNPV) for sharing data from the 2022 Yemen Enterprise Survey and for providing useful guidance. The team would also like to thank Stephane Guimbert (Country Director for Djibouti, Egypt, and Yemen), Dina Abu-Ghaida (Country Manager for Yemen), and Tania Meyer (Country Manager for Cambodia) for their leadership and support, as well as Tatiana Weber (Senior Operations Officer, GTFS2), who provided much-needed operational assistance. This report was co-financed by the Yemen Resilience, Recovery, and Reconstruction Trust Fund (Yemen Fund), which was established by the World Bank in 2022 as a pooled funding mechanism and a partnership platform to support Yemen's transition over a 10-year horizon. The Yemen Fund is supported by the United Kingdom's Foreign, Commonwealth and Development Office and the Kingdom of The Netherlands. The team would like to express their gratitude for this important and timely contribution.

The report also benefitted from consultations with the team of experts at Pragma Corp., who provided useful guidance on past and ongoing technical assistance to the Central Bank of Yemen-Aden, and with Sascha Buetzer (Economist) of the International Monetary Fund's Yemen team, who shared valuable data and experience. The team would like to thank the peer reviewers for their insights and suggestions: Alexander Pankov (Lead Financial Sector Specialist, ESAF1); Sonia Plaza (Senior Economist, ETIDR); Alia Aghajanian (Senior Economist, EMNPV); Ahmed Faragallah (Senior Financial Sector Specialist, EFNFI); and Rinku Chandra (Senior Financial Sector Specialist, EMNF1). Finally, the team would like to thank Sean Lothrop (Consultant) and the World Bank's Global Corporate Solutions Editing and Design team for their excellent work revising and editing this report.

Abbreviations and Acronyms

AML	Anti-Money Laundry
ATM	Automated Teller Machine
CAC Bank	Cooperative Agricultural Credit Bank
CAGR	Compounded Annual Growth Rate
CBY	Central Bank of Yemen
CFT	Countering the Financing of Terrorism
DFA	Yemen De facto Authority
FX	Foreign Exchange
GDP	Gross Domestic Product
IFC	International Finance Institutions
IMF	International Monetary Fund
IRG	Internationally Recognized Government
LC	Local Currency
MS	Money Supply
MENA	Middle East and North Africa
MVTSs	Money & Value Transfer Services
NGO	Non-Governmental Organization
OSESGY	Office of the Special Envoy of the Secretary General for Yemen
PSF	Postal Savings Fund
ROA	Return On Assets
ROE	Return on Equity
SME	Small and Medium Enterprise
SMEPS	Small and Micro Enterprise Promotion Services
US	United States
USAID	U.S. Agency for International Development
YER	Yemeni Riyal
YLG	Yemen Loan Guarantee
YPPSA	Yemen Post and Postal Savings Authority


LEXUS



Executive Summary

Years of conflict have deepened the Yemeni economy's longstanding reliance on cash. The country's underdeveloped formal banking and financial infrastructure hinders credit intermediation, and most economic activity is conducted on a cash basis, from day-to-day purchases to large-scale transactions. Financial inclusion is limited, and informality is widespread. As a result, a large share of economic activity takes place outside the official regulatory framework, which undermines tax collection and diminishes transparency.

As in other cash-based economies, liquidity constraints and immediate consumption needs hinder long-term investment and economic development, exacerbating unemployment and slowing wage growth. Deposit accumulation is low, and the supply of credit provision to the private sector is negligible. Inadequate financial access constrains economic opportunities for individuals and businesses, while a combination of currency depreciation and high inflation has eroded the purchasing power of households, reducing consumption and intensifying poverty.

The conflict has severely inhibited economic activity and distorted the allocation of resources. The country has two parallel monetary policy institutions, the Central Bank of Yemen in Aden (CBY-Aden), recognized by the international community, and the Central Bank of Yemen in Sana'a (CBY-Sana'a), under the Houthi's control. Two currencies are in circulation, though only one is accepted across the country. The two central banks issue inconsistent regulatory standards, and financial institutions with nationwide operations are subject to the authority of both. Capacity to enforce compliance is difficult, in particular regarding the conduct of on-site supervision on Sana'a-based banks, given the current state of insecurity and fragmentation.[1] Nonbank financial institutions provide credit intermediation, but these are regulated lightly if at all. Formal banking services are largely restricted to major cities, while rural and remote areas are mainly served by money exchangers. The population is almost entirely unbanked, including about 90% of men and 99% of women. Just 1.6 percent of adults borrow from formal financial institutions, while 4.8 percent have deposits.[2] Only 6.3 percent of adults have access to financial service points, and there are just 1.6 bank branches per 100,000 adults.[3]

Prolonged political instability and armed conflict have had a deeply negative impact on Yemen's economy, yet the country's financial sector has demonstrated remarkable resilience and adaptability. The ongoing conflict has severely disrupted financial

1 By December 2023, most banks in Sana'a and Aden were connected to Swiftscope, a service which gives the Central Bank the capacity to monitor banks' transactions.
2 Source: Central Bank of Yemen - Aden
3 Source: Digital payments study in Yemen (SMEPS, April 2023).

transactions, weakened sectoral infrastructure, and eroded public trust in banks. However, the country's financial markets have shown a striking capacity to reshape their operations to cope with adverse circumstances. Yemen's banking sector is highly diverse, and banks have embraced a range of adaptation strategies that reflect their different business models, lending practices, levels of technological sophistication, and capacity to engage with a fast-changing regulatory landscape. Microfinance institutions, for example, have grown rapidly, with a 350 percent increase in their aggregate activity observed since 2016. As of 2021, microloans represented 9 percent of all credit to the private sector, though they still fall far short of demand.

The main financial players operating in Yemen are banks and money exchangers. Insurance companies, pension funds, and other traditional intermediaries play only a marginal role, though the Yemen Post and Postal Savings Authority (YPPSA) and Postal Savings Fund (PSF) provide payment services, savings accounts, and other financial products. A sharp decline in risk-weighted assets as a share of total banking sector assets highlights the waning role of Yemeni banks in the real economy, revealing a state of financial repression. Liquidity conditions for banks are increasingly difficult, especially for state-owned and non-Islamic private banks, which have experienced a decrease in loans and a corresponding increase in government securities as a share of total assets. A recently passed anti-usury law could further suppress the role of the traditional banking sector by adversely affecting the assets of traditional commercial banks relative to those of Islamic banks. However, policy reforms implemented since 2021, including the elimination of the dual exchange-rate system for importers, the introduction of foreign-exchange auctions, and the consolidation of fiscal policy, have all helped to reestablish some degree of monetary stability.

The conflict has greatly increased the economic importance of money exchangers. These firms now provide several key financial services previously offered by Yemeni banks, including terms-of-trade financing, as they are now the primary destination for deposits and the main source of credit for traders. Money exchangers play a central role in the economy, and they serve a much larger share of the population than Yemeni banks. Money exchangers are more accessible to the public, have maintained a consistent flow of funds despite the conflict, and operate more extensive networks than banks. They have demonstrated a capacity to bypass some of the constraints faced by the banking sector, and many have capitalized on their ability to operate across large areas and reach underserved markets. The rising number of these companies and their expanding role in financial intermediation underscore the importance of regulating their activities without endangering their crucial contribution to economic activity.

Given the importance of money changers or Money & Value Transfer Services ("MVTSs"), deficiencies in supervision and regulation of the sector gives rise to serious risks and vulnerabilities to the stability and integrity of the Yemeni financial sector by making money laundering, terrorist financing, proliferation and other financial crimes, including corruption much less visible. These vulnerabilities undermine progress in strengthening basic foundations of governance and economic development and will inhibit links to the global financial sector. Thus, urgent attention is needed to conduct respective risk assessments starting with assessing the scope, size and regulatory landscape of the financial and MVTS sector with a view to identifying and implementing the legal and rule of law foundations upon which effective supervision and regulation of the financial sector (and other sectors) largely depend.

Given the importance of money exchangers in Yemen and the dearth of traditional economic statistics, this study employs an innovative analytical methodology. Departing from the approach taken by previous studies, this analysis presents a more comprehensive view of the country's atypical financial sector by examining the financial statements of ten of Yemen's largest money exchangers. These ten companies represent around 40 percent of the total assets of all formal money exchangers operating in Yemen in 2023. Their financial statements were gathered directly from the CBY-Aden.

The analysis shows that their liquidity-focused business model gives money exchangers an important advantage over banks in Yemen's cash-dominated economy. Whereas securities and net loans represent the largest share of bank assets, cash and liquid assets account for a majority of money exchangers' total assets. As the conflict caused a burgeoning liquidity crisis that forced many banks to freeze some or all of their customers' deposits, money exchangers enabled firms to continue making international transfers to facilitate trade and allowed households to receive remittances and shore up their consumption. Moreover, when the CBY-Sana'a prohibited transactions in bank notes minted after 2016, money exchangers' access to large volumes of cash became crucial to the survival of the economy in southern Yemen.

In addition to their strong liquidity position, money exchangers more than compensate for the banking sector's negative net foreign assets, as individual companies tend to have net foreign assets that exceed their foreign liabilities. While the total assets of the top ten money exchangers represent only 12-15 percent of banking-sector assets, their positive net foreign assets position represents 35-40 percent of the net foreign assets of the banking sector. Consequently, money exchangers play an outsized role in providing the economy with access to foreign-currency liquidity—though they have not supplanted the banking sector as a facilitator of trade payments.

The analysis reveals that Yemen's financial system is at a critical juncture. With a combination of prudential and integrity reforms and international support, Yemen can rebuild its financial infrastructure, restore economic stability, and improve the lives of its citizens. To accomplish these objectives, Yemeni firms need formal access to credit, which will enable them to resume their activities and expand as the security situation stabilizes. The withdrawal of commercial banks from private lending, though partially offset by the growth of microfinance, has created a massive unmet demand for credit among Yemeni firms, and this analysis estimates that the demand for credit to the economy outstrips supply 5 to 8 times over. Relieving the binding credit constraints faced by Yemen's private sector will be vital to supporting a broad-based and sustainable economic recovery.

Table 1 Summary of High-level Recommendations[4]

Sector	Recommendation	Priority
The Central Bank	The international community should work towards safeguarding the banking sector as a tool to support aid flows, remittances, and food and fuel imports, under the auspices of the UN Special Envoy Office's roadmap. This should include the adoption of mutually agreed, legally clear and enforceable procedures for implementation of rule of law-based foundations for prudential and AML/CFT supervision, regulation, compliance monitoring and enforcement. In addition, the freeze of commercial banks' deposits made before the central banks split and the suspension of payments on domestic debt should end. Eliminating these practices is vital for restoring the trust of Yemeni citizens and economic agents in the financial sector.	Immediate
	The Central Bank of Yemen's supervisory role in the country's banking sector needs substantial improvement. The existing legal and regulatory frameworks lack alignment with universally accepted rule-of-law foundations on which implementation of international best practices depend for effectiveness. This undermines the Central Bank's credibility as a supervisor/regulator which prevents it from implementing effective macro- and microprudential as well as AML/CFT supervision and regulatory enforcement.	Intermediate
	The introduction of Open Market Operations to manage structural or short-term liquidity imbalances would be a desirable introduction that could enable CBY-Aden with a more flexible tool to achieve its price stability and monetary policy objectives. Apart from the recently introduced FX and treasury bills auctions, the Central Bank of Yemen lacks an official policy rate and operational framework for liquidity provision to the financial sector. Sound management of monetary policy is essential for controlling inflation, stabilizing the currency, and promoting economic growth. Implementing effective monetary policies can create a conducive environment for investments and economic development.	Intermediate
	Revise the Law 14 of 2000 to reinforce the independence of the Board. More specifically, remove the participation of the representative of the Minister of Finance from the Board, allow the selection of external auditor solely by the Board of Directors, clarify the process of dismissal of Board members, and expressly mention that Board members shall not receive instructions from third parties.	Intermediate
	Adopt regulations (bylaw or charter) outlining the governance structure of the Board of Directors. The bylaw or charter will clarify the roles, responsibilities, and procedures of the Board of Directors. In 2022 CBY-Aden created an Internal Audit Committee. However additional committees in charge of risk and compliance, monetary policy, and human resources remain to be created.	Immediate
	Adopt Human Resources (HR) policy and procedures that reform recruitment, retention, compensation, and training of human capital.	Immediate
	Review the organizational structure of the CBY and create a Risk and Compliance Department reporting to the Board.	Intermediate
	Adopt the International Financial Reporting Standards (IFRS) for accounting and financial reporting. The CBY should prepare a detailed guideline for IFRS and provide IFRS certificate training to staff.	Intermediate

4 Recommendations 4-15 for the Central Bank were also included in the 2022 World Bank Fiduciary Assessment of the Central Bank of Yemen.

Table 1 Summary of High-level Recommendations *(Continued)*

Sector	Recommendation	Priority
The Central Bank	Develop and implement a risk management strategy, including a business continuity plan.	Immediate
	Develop an Enterprise Resource Planning for Accounting and financial reports.	Intermediate
	Strengthen the Internal Audit Department.	Immediate
	Prepare and implement climate risk and opportunities management policy.	Intermediate
	Prepare and implement a green procurement policy and regulations.	Intermediate
	Develop and implement external audit policy in line with international standards.	Immediate
	Design and enforce a communication strategy leveraging the new technology of information.	Intermediate
The Banking Sector	The Central Bank of Yemen (CBY) should take proactive measures to adopt a comprehensive and rule-of-law based legal and regulatory foundation. Such a framework is essential not only to navigate the challenges posed by the anti-usury law but also to fortify the overall stability and resilience of the Yemeni banking sector amidst ongoing conflict and political instability.	Long-term
	International and national stakeholders should collaborate to oppose the application of the anti-usury Houthi law. Simultaneously, the Yemeni Internationally Recognized Government must proactively foster a conducive environment for Yemeni banks. Contingency plans should also be developed to mitigate the potential fallout from the anti-usury law, which came into effect in early 2023 and has already been partially implemented.[5]	Immediate
	The Central Bank should promote sector consolidation, facilitate the acquisition of viable assets by stable banks, and establish a comprehensive legal framework for macroprudential stability and crisis resolution to address potential insolvency risks.	Intermediate

5 The law mandated banks to switch interest-bearing accounts to checking accounts.

Table 1 Summary of High-level Recommendations *(Continued)*

Sector	Recommendation	Priority
Money Exchangers	Yemen should develop a robust prudential and AML/CFT regulatory framework to license money exchangers to address the risks associated with the widespread presence of unlicensed and unregulated operators.	Immediate
	The central bank should establish a set of incentives and a clear pathway for these unlicensed entities to obtain formal licenses, and take action to enforce such requirements, including shutting down those persons/entities operating without the appropriate license.	Intermediate
	The central bank should adopt and implement appropriate AML/CFT regulatory frameworks in line with international integrity standards and should ensure that regulators have effective and legally binding powers and resources to be able act and sanction institutions in cases of non-compliance.	Intermediate
	Yemen should deepen its understanding of the financial integrity and ML/TF risks within the money exchanger sector, to ensure that supervisory activities are targeted at the highest risk entities.	Immediate
	The Central Bank should conduct outreach to the private sector to ensure that institutions have the capacity to conduct customer due diligence controls and to identify ultimate beneficial owners.	Intermediate
Access to Finance	The Central Bank should keep investing in the promotion and expansion of digital financial services. This includes continuing efforts to develop the payment infrastructure to encourage the use of mobile banking, digital wallets, and online payments while ensuring consumer protection with fair and transparent regulations.	Immediate
	Building on the SFD's effort to train vulnerable populations in digital finance tools, the Central Bank may incentivize financial actors to provide e-trainings to their customers and streamline application procedures. The provision of financial education, entrepreneurship training, and awareness-raising workshops can strengthen firms' capacity to deal with financial institutions and enhance their business impact.	Immediate
	The Central Bank should improve the efficiency of credit guarantee schemes for SME loans. A credit guarantee firm could be created under the Central Bank with all commercial banks as shareholders to align incentives.	Intermediate
	The Central Bank of Yemen should take action to bring down regulatory uncertainty and send trust signals to financial actors to expand the provision of credit to the economy. In this regard, after the end of the conflict, the introduction of a deposit guarantee scheme may help in restoring trust in the banking system.	Long-term

Introduction

A thorough assessment of Yemen's financial sector has been lacking for many years. The protracted conflict and related instability have hindered the capacity of the country and of the international community to provide analysis of the health of the Yemeni financial system grounded in solid data collection and dissemination. Since the eruption of the conflict in 2014, Yemen has not had an IMF Article IV consultation, while the last Financial Assessment Program dates to 2001. This report tries to fill this void, by taking stock of the health of the main Yemeni financial institutions. In doing so, we review the different groups of financial intermediaries composing the financial sector, namely the Central Bank, the banks, and the non-bank financial intermediaries.

This report analyzes the unique development trajectory of the Yemeni financial sector as it strives to cope with an ongoing conflict that has divided the country's monetary policy between competing zones of control. Notwithstanding the challenges and limitations imposed by a fragile context marked by a dearth of uniformly collected and verifiable data, this report aims to provide a comprehensive update on the evolution of financial services, both formal and informal, amid the conflict. Some of the data presented here are entirely original, enabling the analysis to examine previously unexplored facets of the Yemeni financial sector. Recent gains in political stability have unfortunately been hampered by the escalating geopolitical tensions in the region stemming from the conflict in the Middle East. The resulting military escalation in the Red Sea poses a significant threat to the ongoing peace efforts in Yemen. Prior to the outbreak of the ongoing conflict in October 2023, the crisis in Yemen had shown signs of progress, with ongoing negotiation efforts between the Houthis, or De-Facto Authority, and the Yemen Internationally Recognized Government (IRG). However, since the outbreak of hostilities in the region, prospects for peace have rapidly deteriorated. The numerous Houthi-launched attacks on commercial ships and resulting disruptions to maritime trade in the Red Sea have further eroded the overall peace prospects for the Yemeni population, already burdened by a decade-long conflict.[6] Nevertheless, amidst these mounting geopolitical risks, it remains crucial to assess the health of the financial sector comprehensively and understand both its strength and vulnerabilities. This understanding is essential for designing policies that effectively safeguard stability and foster resilience.

This report devotes special attention to the rise of nontraditional actors, not yet effectively supervised and regulated, and the pivotal role they play in sustaining economic activity during the conflict. As protracted instability and the deepening division of monetary policy have eroded the capabilities of the formal banking sector,

6 The U.S. administration designated the Houthis a Specially Designated Global Terrorist (SDGT) group in January 2024.

money exchangers, fintech providers, and microfinance institutions have begun to offer a widening array of financial services, often reaching communities and households that would otherwise be unwilling or unable to engage with banks or other traditional financial institutions. An analysis of the innovative approaches adopted by these nontraditional service providers can inform tailored policy recommendations grounded in the nuanced understanding of the Yemeni financial sector while also offering insights that can be adapted to other fragile and conflict-affected economies.

The report is organized as follows. The first chapter describes recent developments in Yemen's highly atypical monetary policy environment, including the separation of the Central Bank in two separate institutions headquartered in Aden and in Sana'a with parallel mandates, the former internationally recognized, the latter under Houthi's control. The second chapter reviews the traditional commercial banking sector, examining how the establishment of competing spheres of monetary policy, as well as the larger conflict, has affected the country's formal banking sector. Chapter three looks at the rise of money exchangers, who have come to occupy an increasingly vital position in Yemen's economy as the conflict has eroded the dominance of the traditional financial sector.

To our knowledge, no report has analyzed before either the balance sheets of individual banks or of money exchangers. The analysis conducted in the first three chapters relies on "supply-side" data, i.e., data compiled from information provided by financial institutions, including the aggregate balance sheet of the Central Bank – Aden, the individual balance sheets of Yemeni commercial banks, and the balance sheets of selected money exchangers. The analysis performed in chapters two and three allows us to describe in an original fashion the characteristics and fragilities of the Yemeni financial Sector, and to illustrate the interrelations between the country's central bank and the banks, and the interrelations both within money exchangers and between money exchangers and banks.

The report completes its review of the Yemeni financial sector by focusing on the economic sectors that the financial sector intermediates, as the role of the financial sector is to intermediate and facilitate the efficient allocation of resources in an economy. Chapter four identifies and analyzes barriers to access to finance among firms and households and examines the innovative strategies employed by fintech providers and microfinance institutions to reach underserved consumers. Unlike the first three chapters, the analysis conducted in chapter four relies on "demand-side" data, i.e., data collected from users of financial services on access to finance, including the World Bank's Enterprise Surveys of 2013 and, for the first time, newly collected data from the World Bank's Enterprise Survey of 2022. This chapter presents an updated and upgraded measure of the Access to Finance Gap, i.e., the difference between the country's demand and supply of credit to firms. Chapter five summarizes the report's main findings. All chapters conclude with a list of high-level policy considerations that are directly linked to the data-driven analysis presented in each section. As this report has prevalently a diagnostic scope, the elaboration of a detailed menu of policy prescriptions is left for future work.

This report aims, whenever possible, to provide an overview of Yemen's financial sector as a whole. However, this task is notably complicated by the country's significant political fragmentation. To this point, it is important to note that since the analysis in chapter 3 (the money Exchangers) relies on data from establishments situated solely within the territory controlled by the Internationally Recognized Government and under direct supervision of the Central Bank of Aden, the findings in this chapter may not fully represent the entire financial landscape of Yemen. Conversely, the analyses conducted in chapters 1, 2, and 4 and their findings are based on data collected from and reflective of the entirety of the country.


SUZUK
250

Chapter 1.
The Central Bank

YEMEN'S DUAL CENTRAL BANKING SYSTEM

Yemen's two central banks are a consequence of the ongoing conflict. In 2016, Houthi rebels took control of Sana'a, established themselves as the country's de facto authority (DFA). Meanwhile, Yemen's internationally recognized government (IRG) relocated to Aden and established the Central Bank of Yemen in Aden (CBY-Aden). These two parallel central banks each claim authority over Yemen's financial system, and each operates independently, issuing its own currency, exerting authority over banks within its territory, and managing its own financial resources[7]. The issuance of separate currencies has contributed to the devaluation of the Yemeni rial in areas controlled by the IRG. As the CBY-Aden has repeatedly monetized large fiscal deficits, the resulting currency depreciation reduced the purchasing power of importers while high inflation has undermined consumption among Yemeni households. Over time, the rivalry between the two central banks intensified, encompassing all aspects within the standard purview of a central bank, including the conflict over access to data held by the country's banks and money exchangers, and further complicating the operating environment for financial institutions that operate both in the IRG and DFA zones of control. The fragmentation of the monetary authority hinders efforts to stabilize the banking sector and address the longstanding underdevelopment of the country's financial markets.[8] Given data and communication limitations with the Central Bank of Sana'a, the analysis of this chapter mostly relies on data provided by the Central Bank of Aden and entities under the jurisdiction of the Internationally Recognized Government (IRG).

The Central Bank of Yemen in Aden regulates and supervises private banks and money exchangers. Most of the regulatory framework dates to a period before the onset of the conflict and it has not been substantially updated since then. The Central Bank of Yemen was formed in 1990 with the merger of the Central Bank of North Yemen (established in 1971) and the Central Bank of South Yemen (established in 1972). The Law of the Central Bank of Yemen No. 14 of 2000 is considered the primary legislative foundation for the CBY. The law outlined the criteria for financial and administrative independence, as well as the standards that would contribute to strengthening the governance of the CBY's management, thus, enhancing its independence. This law has only been amended once in 2003, specifically, to increase the number of members of the Board of Directors from five to seven members. The primary objective of the CBY-Aden is to achieve and maintain

7 While CBY-Aden is able to access global financial resources and receives international support, the Sana'a-based Monetary Authority remains fully operational under the control of the De Facto Authorities (DFA).

8 Sana'a Center for Strategic Studies, *Yemen Economic Bulletin: Battle to Regulate Banks Threatens to Rupture the Financial Sector*.

price stability. The central bank is also responsible for determining the foreign exchange rate in consultation with the government, and for licensing and monitoring the operations of financial institutions - including money exchangers - and manage external reserves. No other sub-objectives are specified such as consumer protection, or financial inclusion.[9] The law provides CBY with limited institutional independence as the law outlines the CBY board composition with a seat for a representative from the Ministry of Finance in addition to the governor and deputy governor being recommended to the president by the cabinet of Ministers.

The banking sector is governed by the Banking Law 38 of 1998, whereas the Islamic banks are subject to Law No. 21 dated 1996, which was revised and amended by Law No. 16 of 2009. There are other laws that are applicable to banks operating in Yemen, including: (i) Law No. 1/2010, which was amended by law No. 17/2013 concerning anti-money laundering and combating the finance of terrorism; (ii) Law No. 15/2009 concerning microfinance banks; (iii) Law No. 21/2008 concerning the deposit insurance institutions; (iv) Law No. 19/ 1995 which was amended by Law No. 15/ 1996 concerning money exchange operations; (v) Law No. 40/2006 concerning payment systems and electronic financial and banking transactions; and (vi) Law No. 11/2007 concerning financing leases. The banking sector is currently supervised by both the CBY-Aden and CBY-Sanaa. Both institutions have limited power and authority to effectively supervise banks in Yemen, especially because of the lack of cooperation between the two institutions, the ongoing conflict, the high turnover of staff, and the lack of resources including limited information available on all the credit institutions operating in the country. During the first years of the conflict, CBY-Aden could not exert effective supervision under the prevailing security and political circumstances -given that headquarters of most banks are in the Sana'a region. A moderate degree of political reconciliation in recent years has been made to allow banks with headquarters in the Sana'a region to report their financials to CBY-Aden; however, regulatory constraints with respect to conflicting regulatory requirements of the two central banks persist. Moreover, key prudential and risk-based anti- money laundering and counter terrorist financing (AML/CFT) regulations for Islamic banks do not exist.[10]

Effective bank supervision and examination cannot be satisfactorily achieved under the prevailing circumstances. However, in 2022, the banking supervision functions of CBY-Aden were largely restructured, with the creation of a new department for AML/CFT. The unavailability of adequate resources, especially in terms of staff, prevents the supervisory authority from effectively overseeing the regulated institutions. CBY is in the process of implementing the IMF/WB prudential regulation plan to follow Basel III guidelines with regard to capital adequacy, loan classification, liquidity ratios, maximum lending limits, lending to related parties, foreign exchange positions, and business continuity. The risks arising from Islamic finance operations and activities are not captured properly as reporting and regulatory requirements are the same of conventional commercial banks.

9 In 2023, CBY-Aden issued regulation to safeguard consumer protection.
10 For a detailed assessment of CBY-Aden regulatory framework, see BDO-World Bank, *Fiduciary Assessment of the Central Bank of Yemen for the World Bank*.

Moreover, sanctioning powers are weakly enforceable. Despite the existence of a legal basis, detailed procedures for recovery and resolution have not been drafted yet. Overall, as reported in the Fiduciary Assessment of the Central Bank of Yemen conducted by BDO and the World Bank, compliance with the Basel Committee's core principles for effective banking supervision could be strengthened in several areas (Box 1).

Box 1 The Fiduciary Assessment of the Central Bank of Yemen-Aden

In 2022, the World Bank conducted an in-depth fiduciary assessment of the Yemen Central Bank based in Aden. The Fiduciary assessment outlined a detailed reform plan, which was subsequently endorsed by the Yemen Central Bank (henceforth referred as the CBY Action Plan). The main findings of the Fiduciary assessment are reported below, while a summary of its prescriptions are reported in the Policy Recommendations.

Reforming the legal and regulatory frameworks/foundations, the political environment as well as the operating structure and ensuring the autonomy of the Central Bank of Yemen is fundamental. The independence and autonomy of the Central Bank are foundational pillars for the stability and integrity of the country's financial system. A Central Bank that operates independently from political influence and external pressures can formulate and implement monetary policies in a transparent and objective manner and pursue the country's long-term financial health rather than short-term political considerations. Furthermore, an independent Central Bank instills confidence among investors, both domestic and international, as it signals a commitment to sound fiscal management, contributing to a favorable investment climate and overall economic prosperity. The Central Bank of Yemen's (CBY) institutional independence is enshrined in Law 14 of 2000 (amended in 2003) governing the Bank's operations. The Law guarantees the CBY's administrative and financial autonomy, which is indispensable to achieving its mandate of maintaining price stability.[11] The CBY is autonomous in authorizing its discretionary budget (Article 13 of Law 14 of 2000) with a trusted and paid-up capital of one billion Yemeni riyals subject to increase upon the approval of the Council of Ministers (CoM) at the proposal of the Board of Directors (BoD).

Some provisions in the legal framework hinder the CBY's autonomy. The Board comprises seven members: The Governor, the Deputy Governor, one representative from the Ministry in charge of Finance, and four other independent members. The Board meetings' attendance by a representative of the Ministry of Finance is not compliant with leading practices, creates an opportunity to influence the Board's deliberations, and impairs the Board's autonomy. The Law allows indefinite terms for board members, including the Governor and his Deputy. As a result,

11 Academic research on the correlation between *the de jure and de facto* independence of Central Banks led to a strong agreement among academics and policymakers on the merits of an independent Central Bank (Lastra, R. (2015), International Financial and Monetary Law, Oxford University Press).

Box 1 The Fiduciary Assessment of the Central Bank of Yemen-Aden *(Continued)*

the Board members who have served for long periods bear the risk of familiarity that could falter their independence and objectivity. The Prime Minister is empowered to appoint external auditors upon the Board of Directors' recommendation (Article 56 of Law 14). The authority conferred to the Prime Minister constitutes an interference with the Board's independence, precisely to the Internal Audit Committee's responsibility. The Law 14 of 2000 is silent on the prohibition of receiving instructions from third parties by the Board members. The Board members' dismissal criteria is too broad and lacks checks and balances. The Law does not clarify the process of dismissal and the recourse available for the Board members to the court or any other body in the case of dismissal.

The Board of Directors' governance reveals significant weaknesses. The Governance structure of the Board of Directors is not stipulated in the Law or any bylaws/charter. As a result, many aspects of the Board's function need to be clarified, such as roles, tasks, and responsibilities, including organizing meetings, evaluating its members, determining the fit and proper criteria of members, forming standing Committees, and regulating the relationship between the Board and the Committees. Except for the Internal Audit Committee created and being formalized, the Board's effectiveness is altered by the absence of critical Committees like those in charge of risk and compliance, monetary policy, and human resources.

Despite past progress, the Central Bank of Yemen's internal control system is still weak and shall be enhanced in several areas. A robust internal control system is vital in promoting trust, integrity, and operational and financial performance of the Central Bank. Internal control helps safeguard assets and resources, preventing fraud and misuse, ensuring compliance with laws and regulations, reducing risk, and enhancing operational efficiency. Most of the CBY functions (Department in charge of Internal Audit, Department in charge of Accounting, Department in charge of Banking Supervision) are understaffed, and the financial statement is not compliant with the Internal Financial Reporting Standard (IFRS). In addition to high staff turnover, one of the challenges the CBY faces is the differentials between the industry salary scale and the CBY salary scale, rendering the recruitment and motivation of qualified staff extremely difficult. The CBY lacks a human resources policy to attract, retain, compensate, and train talented staff required for its operations. The accounting standard applied is dated 1996 and is not compliant with the International Financial Reporting Standard (IFRS). The procurement policy and regulations applied to the CBY are not aligned with best practices and do not incorporate sustainability and green procurement dimensions. The CBY lacks an adequate risk management strategy and business continuity plan covering the spectrum of risks emerging from its environment and operation.

Box 1 The Fiduciary Assessment of the Central Bank of Yemen-Aden *(Continued)*

As the issuer of Yemeni currency, the CBY's environmental footprint could be non-negligible. According to the World Wildlife Fund´s sustainable financial regulations and Central Bank Activities Tracker 2023, only 18% of Central Banks show exemplary progress in integrating climate-related risks into their activities, whilst 68% of high-income countries have not yet adopted adequate climate and environmental banking supervision policies. In addition, a study from the Bank of Canada estimates that the environmental impact of polymer notes would be at least 30 percent smaller than paper notes[12]. The Central Bank should design and adopt a climate-related risk and opportunities policy to mitigate the climate impact risk arising from its operations.

Critical functions such as accounting, financial reporting, and human resources-payroll management are not equipped with a modern Enterprise Resource Planning (ERP) system. The banking system used by the Central Bank, MBS, is programmed using COBOL language. The MBS server operating system is the SCO UNIX OPEN SERVER Version 5. The banking database system is Oracle 7. The system is outdated and no longer responds to the business needs and rapid advancement of technology. Thus, there is a need to acquire an ERP adapted to the current business needs and cutting-edge technology.

The structures supporting the internal control system are nascent or missing. The CBY does not create a Risk and Compliance Department reporting to the Board. No Department is in charge of risk identification, assessment, and monitoring, and risk compliance activities. The newly created Internal Audit Department suffers from a shortage of qualified staff and an absence of a training program. The available resources fall short of the workload. The Department lacks a comprehensive charter and risk-based audit manual covering all of the department's duties and activities, clarifying the work procedures for each activity subject to internal audit.

The Central Bank of Yemen's accountability and transparency mechanism is not fully institutionalized. The external audit policy is missing and shall embed provisions on the auditor rotation and competitive selection process by the Board or Internal audit Committee based on the external auditor's adequate qualification and experience, in line with the Internal Standard on Auditing (ISA) and the code of ethics of International Federation of Accountants (IFAC). While the Central Bank shared monthly its financial position with the government, the audited financial statement report is not disclosed to the government, parliament, citizens, and other stakeholders, and a backlog of audited financial statements accumulated since 2016

12 https://www.bankofcanada.ca/banknotes/bank-note-series/frontiers/lifespan-bank-note/#:~:text=In%20every%20category%2C%20results%20showed,of%20notes%20across%20the%20country

Box 1 The Fiduciary Assessment of the Central Bank of Yemen-Aden *(Continued)*

is not cleared resulting in severe limitations to the financial accountability and transparency. The absence of disclosure of the audited financial statement prevents stakeholders from exercising scrutiny over the Central Bank's operations.

The Central Bank's decisions regarding monetary policies and fiduciary responsibilities are not easily accessible and available online or via social media. As a result, users of the Central Bank services and citizens are unable to access timely information affecting the economy and their livelihood. The CBY should design and implement a communication strategy leveraging new technology and the internet.

THE CENTRAL BANK OF YEMEN-ADEN

Despite its limited geographic scope and the continued presence of the CBY-Sana'a, the CBY-Aden has carried out important improvements in recent years. The introduction of a foreign exchange auction system in November 2021 has helped ensure a more transparent and reliable supply of foreign currency, particularly for essential imports like food and fuel. A steadier flow of imports, in turn, has helped stabilize prices and reduce market distortions, with positive implications for the financial sector, as the reduction in exchange-rate volatility has enabled businesses and consumers to better plan their finances and make informed decisions. The CBY-Aden's commitment to reform has also helped bolster confidence in the Yemeni economy, which will be crucial to attracting domestic and foreign investment and fostering economic growth.

The CBY-Aden has also stepped up its effort to regulate money exchangers, which in recent years have become an increasingly prominent feature of the Yemeni economy. In addition to strengthening the licensing process, the CBY-Aden has established a regulatory framework outlining rules, standards, and guidelines for money-exchange activities, adopted anti-money-laundering procedures, undertaken regular audits (Box 2). However, legal authority of supervisory officials to enforce compliance with legally enforceable obligations and sanction non-compliance remains lacking, mostly due to the security situation on the ground. Currently, some of the large money exchangers that have accepted deposits from customers are in the process of applying to a banking license from CBY-Aden in line with the regulation that prohibit any non-banking institution from accepting deposits from customers. Money exchangers are also subject to a new supervisory framework that monitors capital adequacy, liquidity, and profitability.

Box 2 International Technical Assistance to the Central Bank of Yemen

The International Monetary Fund (IMF) prepared a Capacity Diagnostic and Technical Assistance Needs Report (the IMF assessment, henceforth) for the Central Bank of Yemen in November 2018[13]. Subsequently, The Central Bank of Yemen requested USAID to develop through its agency Pragma Corp. an action plan to implement the strategy and recommendations included in the IMF assessment. Pragma Corp's action plan (the Action Plan, henceforth) was finalized in 2020 and included a comprehensive package of technical assistance[14], which is currently ongoing. The action plan covered the seven core functions of central banking: 1) Independence and Accountability, 2) Governance, Organization, Internal Audit, Risk Management, and Compliance, 3) Foreign Exchange and Reserve Management, 4) Domestic Payments Systems, 5) Banking Supervision and Control, 6) Currency Management, and 7) Monetary policy.

The IMF assessment report emphasized the need for greater independence and accountability of the Central Bank of Yemen to ensure independence of monetary policy from the government's influence. Governance and organizational structure, along with internal audit, risk management, and compliance with AML/CFT standards, were also highlighted as areas needing enhancement within the existing legal framework. The assessment report also pointed out significant challenges in foreign exchange and reserve management, necessitating efficient and transparent policies. For domestic payment systems, the assessment stressed the need for establishing secure and efficient systems to maintain financial stability. The report also urged to strengthen banking supervision and control for more efficient on-site and off-site inspection taking into consideration Yemen's complex security and political landscape. Currency management was marked as a high priority too, given the need to maintain public trust and to combat counterfeiting. Lastly, the report suggested to improve the monetary policy operation framework, highlighting the limited tools of monetary policy under then-current conditions.

Following the endorsement of the 2020 Action Plan, the Central Bank of Yemen-Aden has been working extensively on several fronts through a technical assistance package provided by Pragma Corp. and funded by US Aid. The most significant areas of work cover banking supervision, anti-money laundering/combating the financing of terrorism (AML/CFT), and monetary policy. Under Pragma Corp.'s assistance CBY-Aden reformed the organizational structure of the Banking Supervision department to enhance the efficiency of the on-site and off-site inspection teams[15]. Additionally, CBY-Aden developed an excel tool to assess different

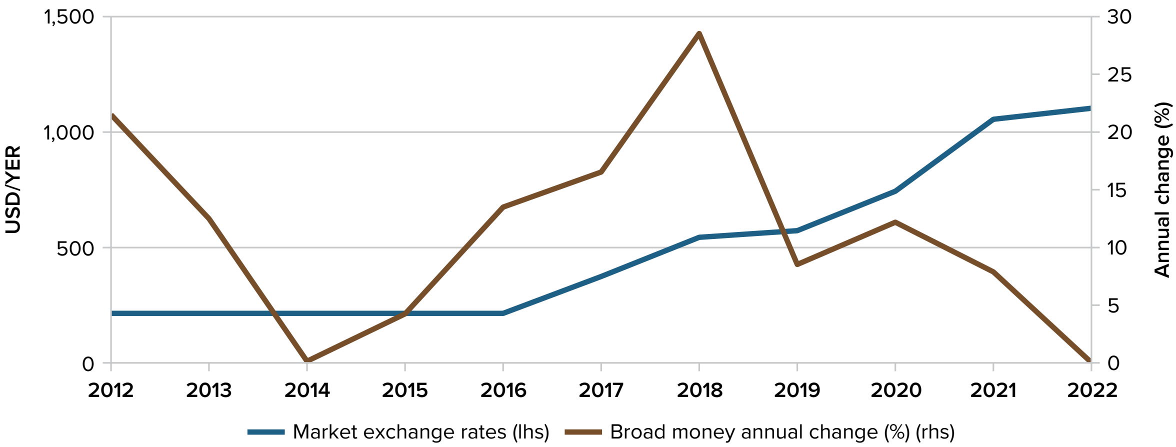
13 International Monetary Fund. Monetary and Capital Markets Department. Yemen: Central Bank of Yemen-Capacity Diagnostic and Technical Assistance Needs. Prepared by jihad Alwazir et. al. November 2018.
14 Pragma Corp, "Action Plan" (2020)
15 Interviews with Pragma Corp. team, "Action Plan" (2020)

Box 2 International Technical Assistance to the Central Bank of Yemen *(Continued)*

ratios of risks using data from individual banks. Efforts to automate the process of data collection and risk ratios calculations, which will enable CBY-Aden to obtain a comprehensive risk assessment of the banking sector, are ongoing. CBY-Aden caried out several improvements on AML/CFT, including establishing a dedicated unit and requiring banks and money exchangers to obtain audited financial statements by an independent auditor[16]. More recently, CBY-Aden has introduced foreign exchange (FX) auctions, with a goal to provide vital foreign currency, absorb excess domestic liquidity, and stabilize the foreign exchange market[17].

The conflict has severely disrupted oil production, and declining oil revenue put the IRG under immense fiscal pressure, leading the CBY-Aden to repeatedly resort to monetary financing of the fiscal deficit. As a result, monetary aggregates grew at an average annual rate of 10 percent between 2014 and 2020, driving the rapid depreciation of the Yemeni rial (Figure 1 and Figure 2). The erosion of the rial's purchasing power has greatly exacerbated the country's humanitarian crisis.

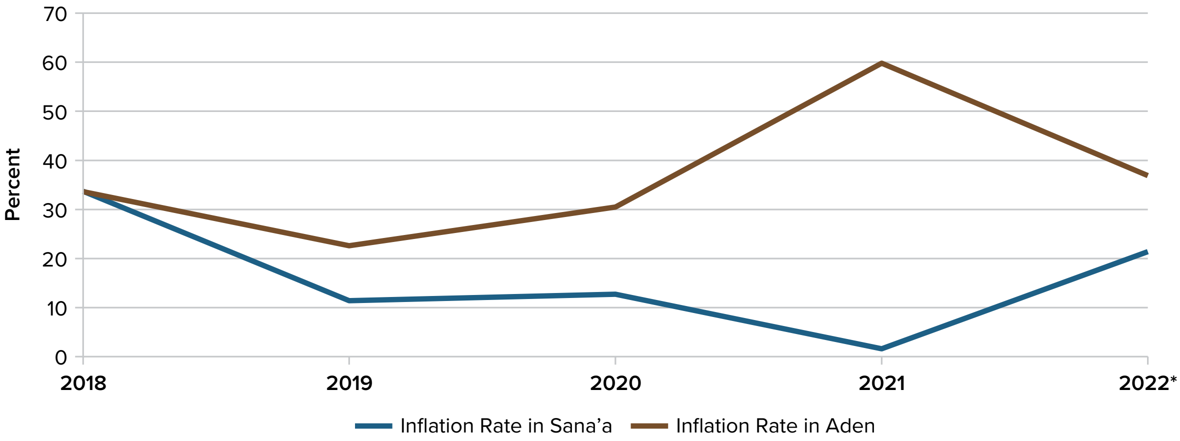
Figure 1 Broad Money (M2) Growth Rate and Exchange Rate



Source: Authors' calculation based on data from CBY-Aden

16 Interviews with Pragma Corp. team, "Action Plan" (2020)
17 IMF, "Yemen 2022 Economic Developments" (2022)

Figure 2 Inflation Rate



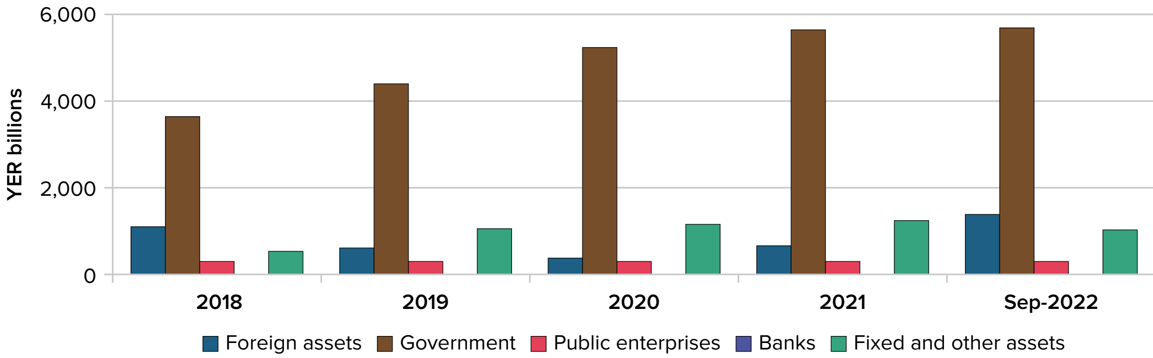
Source: Authors' calculation based on data from the IMF

In 2017, the CBY-Sana'a banned the use of banknotes printed by the CBY-Aden after the 2016 split, leading to the divergence of monetary aggregates across zones of control[18]. The ban has effectively insulated the economy of DFA-controlled regions from the inflationary effects of deficit monetization by the CBY-Aden. However, it has also led to a liquidity shortage in DFA-controlled territory, as the pre-2016 banknotes in circulation are physically deteriorating and cannot be replaced.

Meanwhile, the CBY-Aden's exposure to public debt has increased significantly. Due to large-scale government overdrafts from its account at the central bank, net claims on the government on the CBY-Aden's balance sheet more than doubled between 2016 and 2022, rising from YER 2.1 trillion to YER 5.5 trillion (Figure 3 and Figure 4). As it was driven by deficit monetization, the CBY-Aden's increasing sovereign exposure was not accompanied by a similar increase in the ownership of public debt by the banking sector or other private creditors (Figure 5). Instead, the share of public debt held by banks and pension funds[19] fell from 37 percent in 2018 to 31 percent in 2022 (Figure 6 and Figure 7). The compound annual growth rate (CAGR) of public debt accumulation highlights its unequal distribution among creditors (Figure 8). Between 2018 and 2021 the CAGR for debt held by the CBY-Aden was 19 percent, while the CAGRs for debt held by the banking sector and other creditors were just 5 percent and 7 percent, respectively.

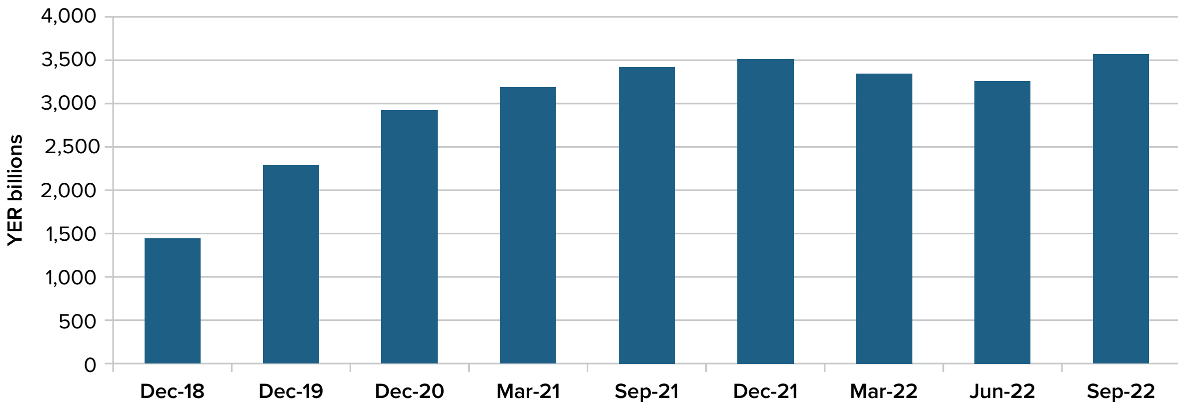
18 While the official ban began in December 2019, the CBY-Sana'a had already implemented restrictive measures as early as 2017, including prohibiting banks, exchange companies, and traders from using the new currency, and confiscating it in certain instances.
19 For more information on pension funds' ownership of public debt, see p.57

Figure 3 Asset Composition of CBY-Aden



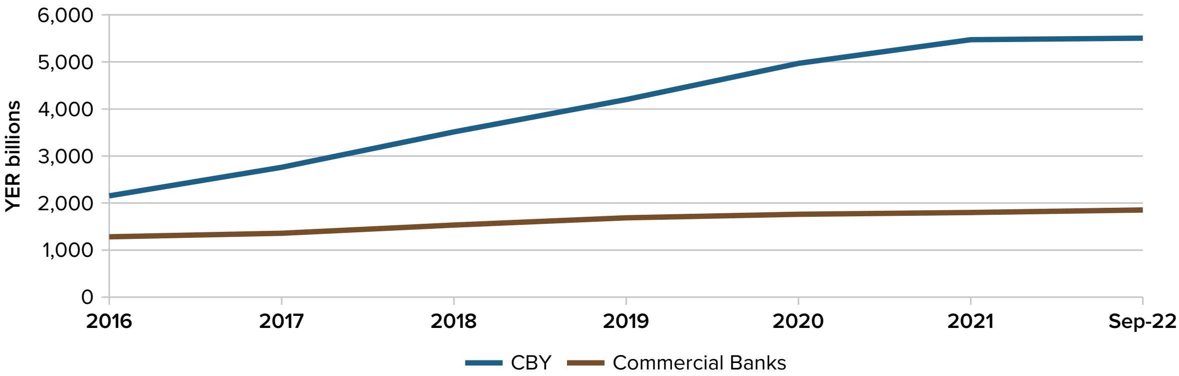
Source: Authors' calculation based on data from CBY-Aden

Figure 4 Government Overdraft at CBY



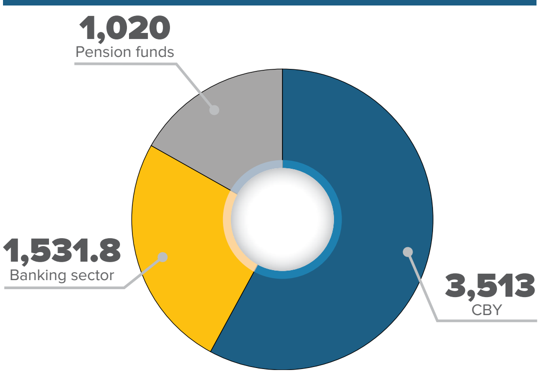
Source: Authors' calculation based on data from CBY-Aden

Figure 5 Net Claims on Government



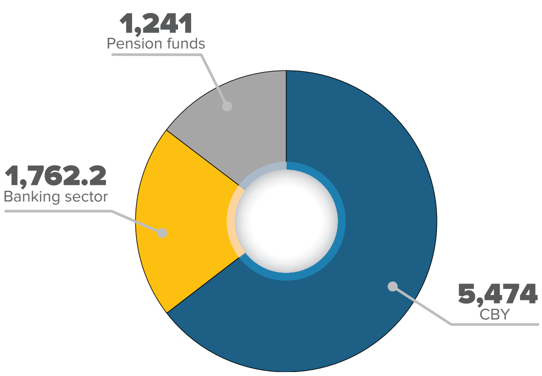
Source: Authors' calculation based on data from CBY-Aden

Figure 6 Public Debt Ownership, 2018 (YER billions)



Authors' calculation based on data from the IMF and CBY-Aden

Figure 7 Public Debt Ownership, 2021 (YER billions)



Authors' calculation based on data from the IMF and CBY-Aden

The conflict between the central banks in Sana'a and Aden Central Banks has severely eroded the confidence in the banking sector (Box 3). In their fight to control the banking sector's assets, both CBY-Aden and CBY Sana'a froze commercial banks' cash balances. CBY Aden allowed withdrawals on cash deposits made after September 2016, and partially restricted withdrawals on cash deposits made before September 2016. CBY Sana'a only allowed withdrawals on cash deposits accumulated since 2017. These decisions de facto froze most cash deposits made before the split of the central bank in 2016. Furthermore, both competing central banks took initiatives that effectively constrained the capacity of the commercial banking sector to benefit from their investments in government securities. Under the leadership of the central bank in Sana'a, the

Yemen Public Debt Department reissued treasury bills upon maturity but redirected the generated interest into non-redeemable accounts. Analogously, the Central Bank of Aden issued new debt in 2018 but mandated that these debt instruments be purchased in cash[20]. These actions collectively limited the opportunities for the commercial banking sector to leverage government securities investments. These actions further aggravated Yemen's reliance on cash, while undermining trust in the banking sector. While the supply of broad money (M2) began to increase rapidly in 2016, the share of currency outside the banking sector rose from 44 percent of M2 in 2015 to 48 percent in 2022, as trust in the banking system deteriorated.[21] The increase in the share of currency outside the banking sector also reflects the growing role of money exchangers in the Yemeni economy. According to interviews with market participants, large money exchangers have been increasingly accepting deposits from the Yemeni population, thus effectively challenging the role of commercial banks.

Box 3 The Effects of the Dispute Between Yemen's Two Central Banks

Since 2017, the CBY-Sana'a and the CBY-Aden have increasingly competed to assert regulatory authority and access banks' financial data. In 2020, the CBY-Aden threatened to refer the executive managers of three banks to the Aden Public Prosecutor for failing to submit their financial data. Later in the year, the CBY-Aden acted against one of the banks, freezing its assets held at a European bank after it continued to refuse to submit its financial report. The CBY-Aden was also determined to sanction the other two banks, but a high-level committee from five major banks was established to mediate with the support of the international community. The committee achieved a compromise agreement at the end of 2020 and again at the end of 2021. However, the issue emerged again at the end of 2022, when the CBY-Aden mandated that all banks implement SWIFT Scope.[22] Most major banks complied with the new requirement, with the approval of the CBY-Sana'a. Had they not implemented SWIFT Scope, these banks would have been entirely cut off from the global financial system and from trade finance.

Aggressive efforts to obtain regulatory compliance have posed serious risks to bank executives. Banking officials close to the proceedings, who were not authorized to speak publicly, told the Sana'a Center Economic Unit that the CBY-Aden referred the boards of directors and executive managers of three banks—the International Bank of Yemen, Yemen Kuwait Bank, and the Yemen Bank for Reconstruction and Development—to the Aden public prosecutor's office for failing to provide their transaction and operations data. A few weeks

20 Sana'a Center for Strategic Studies (2019): Revitalizing Yemen's Banking Sector: Necessary Steps for Restarting Formal Financial Cycles and Basic Economic Stabilization.
21 ODI (2021): Impact of conflict on the financial sector in Yemen: Implications for food security.
22 SWIFT Scope is a business-intelligence solution focused on the data-collection and analysis needs of central banks. It automates the collection and analysis of cross-border transaction flows from SWIFT message data and can also collect and consolidate data from other information sources to provide comprehensive coverage. The data are stored in a data warehouse located at the central bank.

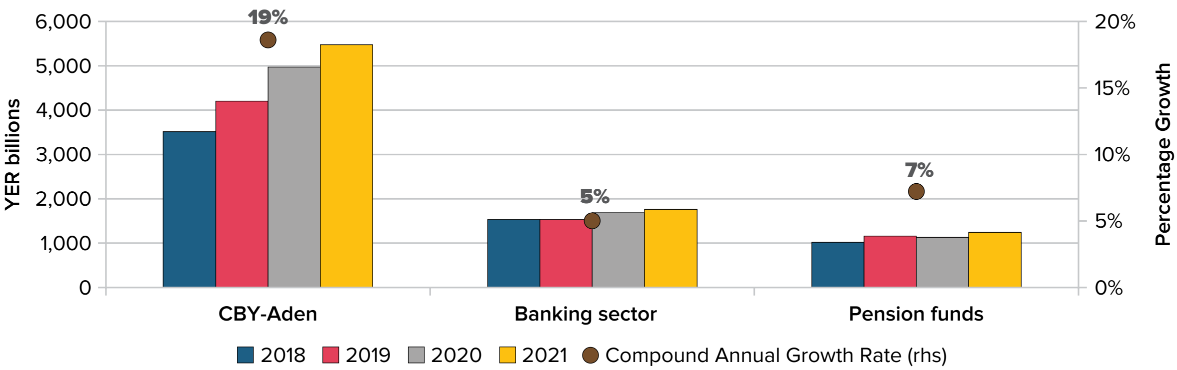
Box 3 The Effects of the Dispute Between Yemen's Two Central Banks *(Continued)*

later, conflicting reports emerged over whether a travel ban had been imposed on the executives and board members of those three banks.[23]

Banks operating in Sana'a with headquarters in Aden have also faced heightened political pressure. In November 2022, the IRG's Ministry of Social Affairs and Labor decided to halt the opening of new accounts for international NGOs and civil-society organizations at banks not supervised by the CBY-Aden. This decision, which was based on the previous designation of the DFA as a "terrorist organization" and anti-money-laundering/countering the financing of terrorism (AML/CFT) concerns, specified that NGOs and civil-society organizations could use four Aden-based banks—CAC Bank, Al-Qutaibi Islamic Microfinance Bank, Aden Microfinance Bank and National Bank of Yemen —to establish new accounts. In response, the Sana'a Ministry of Planning and International Cooperation advised humanitarian and development partners against using the IRG-approved banks and offered its own set of approved banks.

Fiscal pressure has intensified financial repression. While annual inflation accelerated from 10 percent in 2012 to an all-time high of 30 percent in 2018, interest rates on treasury bills have been capped at 15.3 percent since 2015 (Figure 9). Consequently, the real interest rate on public debt fell from 10 percent in 2012 to zero in mid-2014 and has remained negative since 2015. Negative real interest rates on domestic debt reduce the future value of the debt paid back by the government. The resulting transfer of resources from savers to the government represents a de facto tax on savings.

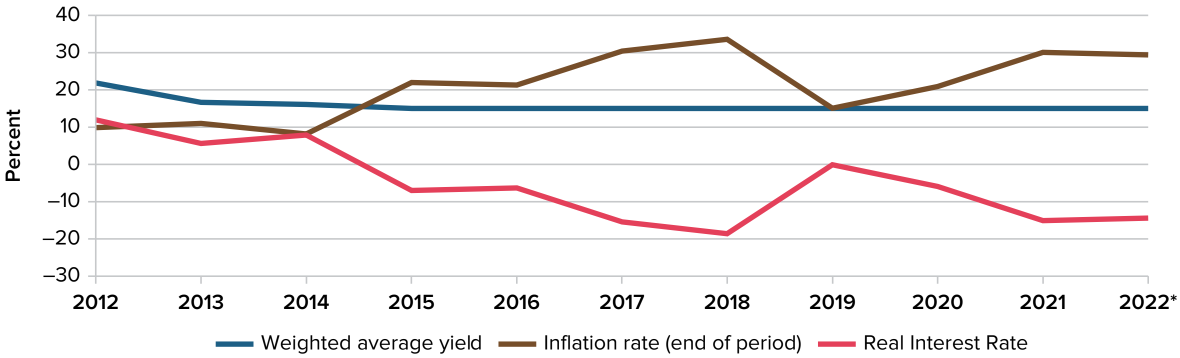
Figure 8 Public Debt Ownership



Source: Authors' calculation based on data from the IMF and CBY-Aden

23 Yemen Economic Bulletin: Battle to Regulate Banks Threatens to Rupture the Financial Sector. Sana'a Center for Strategic Studies. https://sanaacenter.org/publications/analysis/12004

Figure 9 Nominal Interest Rate, Inflation, Real Interest Rate



Source: Authors' calculation based on data from CBY-Aden

Between 2014 and 2020, despite consistent negative real interest rates, the banking sector did not decrease the share of public debt in its overall investment portfolio, further underscoring the extent of financial repression. If rates on one asset become negative, market players are expected to shift away from that asset and increase their investments in other assets. In Yemen, however, the median share of government securities of total assets ticked down only slightly from 65 percent in 2016 to 63 percent in 2020. The persistently large share of public debt on bank balance sheets suggests that banks are unable to divest from a poorly performing asset.

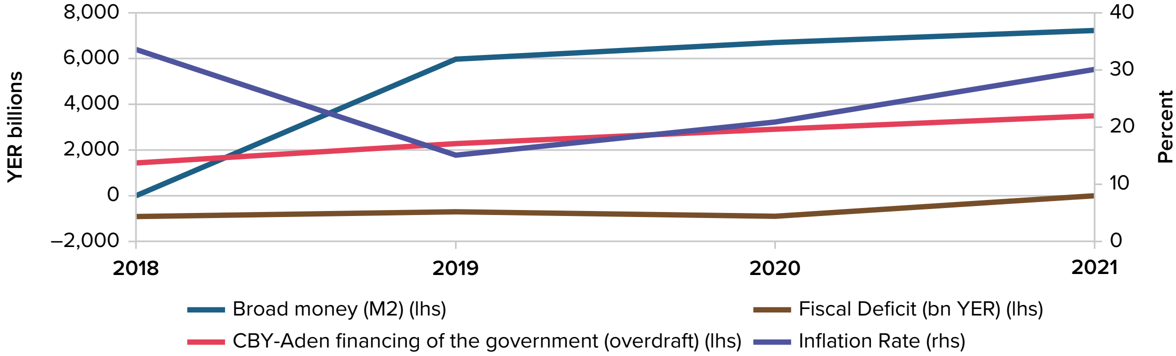
The IRG's reliance on CBY-Aden overdrafts to finance its growing fiscal deficit, coupled with the cap on interest rates on public debt established in 2015, has resulted in a classic example of liquidating the public debt. Despite the widening fiscal deficit, the government has stopped issuing tradable public debt since 2016 and has instead relied primarily on overdrafts on its account at the CBY-Aden. Deficit monetization drove the sharp increase in inflation observed between 2016 and 2019 (Figure 10), and the capped interest rate on public debt in a high-inflation environment has turned real interest rates consistently negative, enabling the government to effectively liquidate the public debt.[24]

The climate of financial repression, the ongoing conflict, and the bifurcation of monetary policy have marginalized some elements of the traditional banking sector. The escalating fears of violence against banks in Sana'a that communicated with CBY-Aden were unfortunately confirmed by instances of outright censorship of activities by CBY-Sana'a towards banks that supplied their financial statements to CBY-Aden. These fears have significantly disrupted banking operations.[25] Furthermore, the fragmentation of the national currency and the dramatic inflation-rate differential between the North and the South have effectively created two separate economies within Yemen. The resulting uncertainty has compromised the banking sector's ability to fulfill its obligations to its customers and weakened its economic role.

24 Reinhart, 2015.
25 Sana'a Center for Strategic Studies, *Yemen Economic Bulletin: Battle to Regulate Banks Threatens to Rupture the Financial Sector*.

Figure 10 Fiscal and Monetary Indicators

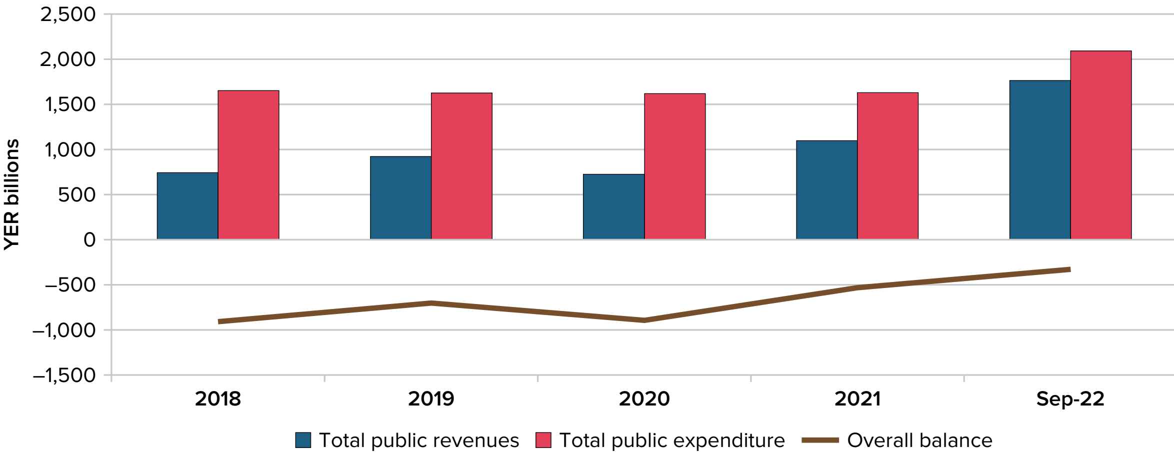
Source: Authors' calculation based on data from the IMF and CBY-Aden



In 2021, the Internationally Recognized Government started implementing IMF-recommended reforms to curb the widening fiscal deficit. The government boosted fiscal revenue by applying market exchange rates to oil revenue. This change, coupled with the spike in global oil prices that followed Russia's invasion of Ukraine in 2022, increased the IRG's annual fiscal revenue by 3 percentage points of GDP.[26] In addition, the government took steps to control the public wage bill, which reduced fiscal spending. This combination of expenditure- and revenue-side reforms helped narrow the fiscal deficit from YER 900 billion in 2018 to YER 300 billion in September 2022 (Figure 11). As the deficit declined, CBY-Aden overdrafts fell, and deficit monetization slowed (Figure 12). The annual growth rate of M2 declined sharply, and inflation is expected to have decelerated markedly in 2022. However, further fiscal consolidation will be vital to stabilize monetary aggregates, decrease financial repression, and control inflation.

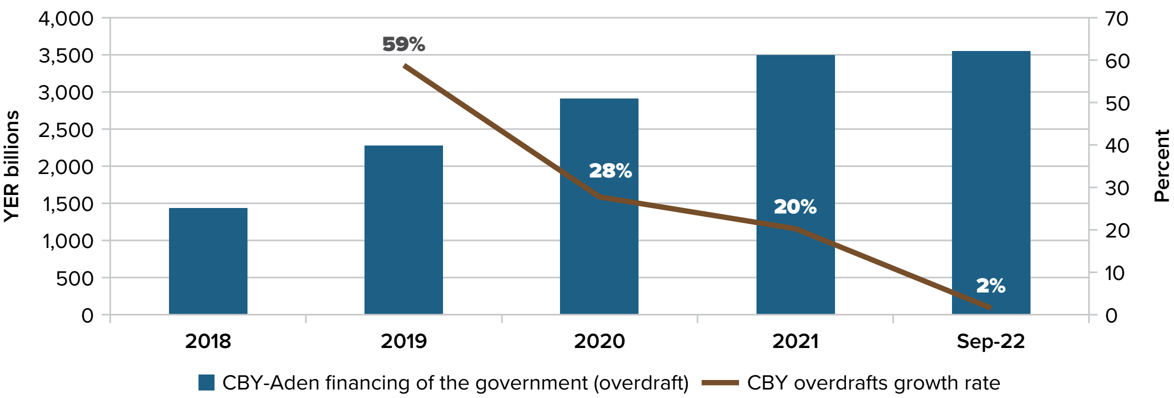
26 International Monetary Fund (2022), "Republic of Yemen - Economic Developments", unpublished.

Figure 11 Key Fiscal Indicators



Source: Authors' calculation based on data from CBY-Aden

Figure 12 Government Financing by CBY-Aden



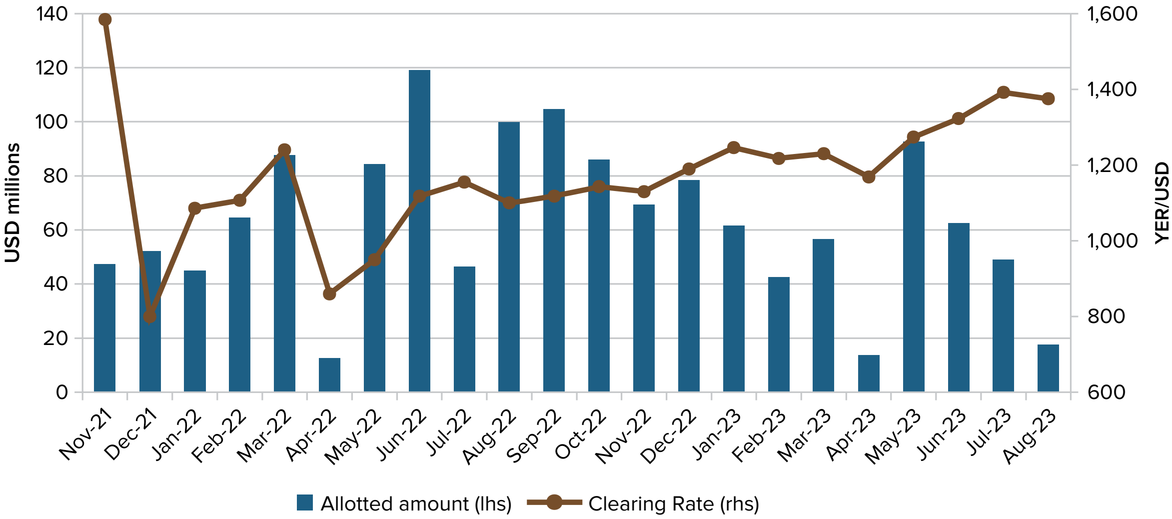
Source: Authors' calculation based on data from CBY-Aden

In November 2021, the CBY-Aden initiated weekly FX auctions, which have eased pressure on the rial and bolstered confidence in the CBY-Aden. The auctions allow banks to submit bids for the volume and price of their requested FX access, either on behalf of themselves or their clients (Figure 13). The FX auctions are mainly funded via Yemen's oil export revenues, and they provide liquidity based on the market price of foreign currency (Figure 14 and Figure 15). In 2022, the CBY-Aden transferred two-thirds of the government's oil revenue to the market through the weekly FX auctions, contributing to high allotted auction volumes.[27] the FX auctions have improved monetary

27 International Monetary Fund (2022), "Republic of Yemen - Economic Developments", unpublished.

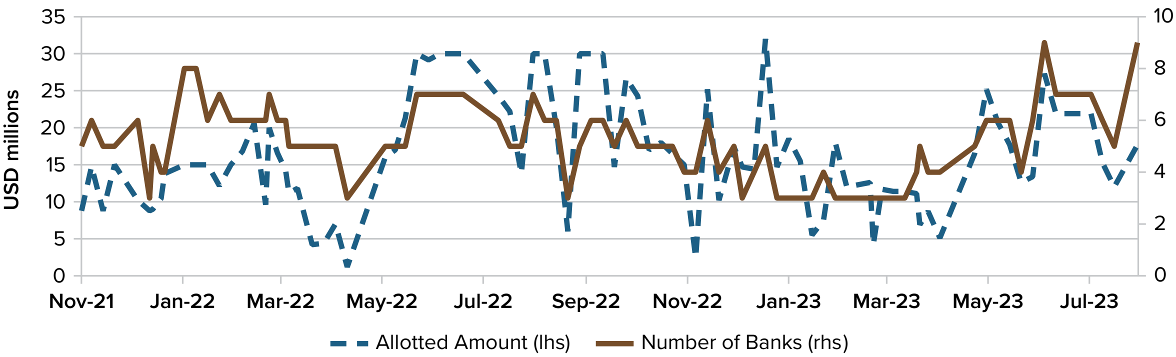
management and stability through the absorption of excess liquidity. According to CBY-Aden reports, broad money increased from YER3.7tb in 2016 to YER 7.2tn in 2021. Between November 2021 and August 2023, the CBY absorbed around YER 1.6tn through FX auctions, amounting to about 46 percent of the increase in broad money since the separation of the two central banks. The auctions started with an amount of US$15 million per week, which the CBY-Aden increased to US$30 million in mid-2022.

Figure 13 Foreign Exchange Auctions



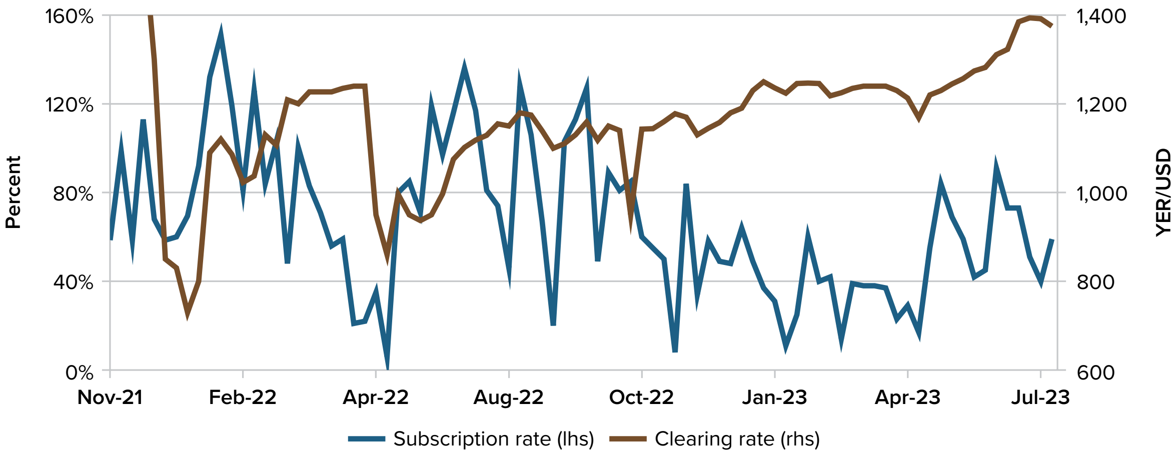
Source: Authors' calculation based on data from CBY-Aden

Figure 14 Foreign Exchange Auctions



Source: Authors' calculation based on data from CBY-Aden

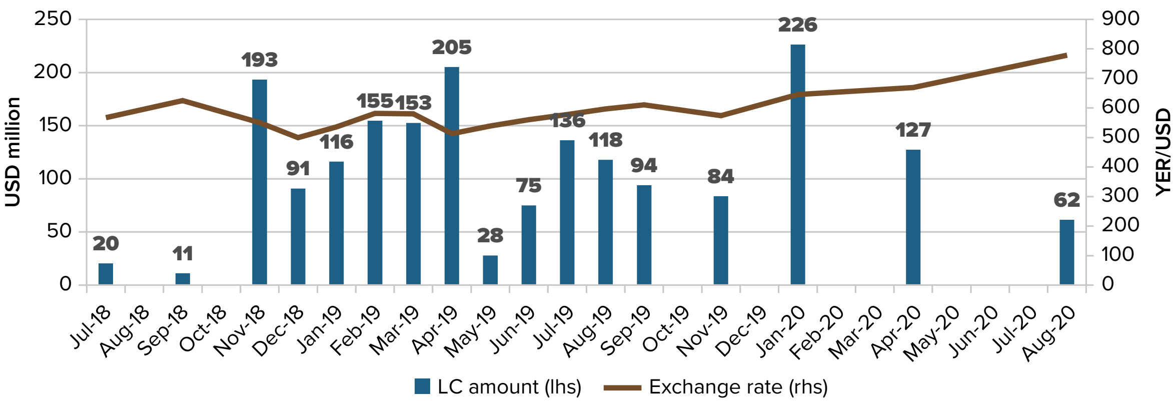
Figure 15 Foreign Exchange Auctions



Source: Authors' calculation based on data from CBY-Aden

The FX auctions have replaced the US$2 billion line-of-credit (LC) facility introduced in 2018 with funding from the Kingdom of Saudi Arabia. The LC facility was designed to provide banks and their clients with a secure line of credit and hard currency to import five key commodities (Figure 16). Although banks in Sana'a were allowed to apply for LCs in Aden, the fragmentation of the currency made this process difficult. Banks were also required to deposit cash in Aden to access the LC facility, but the CBY-Sanaa banned physical transfers of pre-2016 Yemeni rials to the south. These requirements and other challenges prevented some banks from accessing the LC facility.

Figure 16 Line-of-Credit Facility in Use from 2018 to 2021



Source: Authors' calculations based on data from CBY-Aden

POLICY RECOMMENDATIONS FOR THE CBY-ADEN

In light of the ongoing conflict over the attribution of power in Yemen, a crucial policy priority emerges: the urgent need for collaboration between the Aden-based Central Bank of Yemen and the Sana'a-based Central Bank of Yemen. The protracted political and military conflict has created a dire situation where the functionality of Yemeni banks is significantly compromised. Banks, caught in the crossfire of political disputes, find their operational capacities severely hampered. This not only impedes day-to-day banking operations but also erodes the trust of both Yemeni citizens and businesses in the country's financial sector. Collaboration between the two central banks is essential to restoring stability in the financial sector.

It is imperative for the Office of the Special Envoy for the Secretary General for Yemen (OSESGY) to establish an Economic Track to de-escalate what can be perceived as economic warfare between both sides, and work toward reconciliation between the two central banks, particularly in ending the freeze of commercial bank deposits made before the central banks split and the suspension of payments on domestic debt. Eliminating these practices is vital for restoring the trust of Yemeni citizens and economic agents in the financial sector. This should include the adoption of mutually agreed, legally clear and enforceable procedures for implementation of rule of law-based foundations for prudential and AML/CFT supervision, regulation, compliance monitoring and enforcement. Such supervision should further include uniform procedures for the application of administrative sanctions to address non-compliance, information sharing as well as transparency and integrity safeguards to ensure integrity in supervision and regulation. By doing so, both the central banks can demonstrate a commitment to resolving past financial uncertainties, fostering confidence among the public and businesses. Restoring faith in the banking system is pivotal for economic stability and growth, making these actions paramount in rebuilding Yemen's financial landscape.

The ongoing conflict has shaken the trust of Yemeni people and firms in the financial system. Collaboration between the central banks can serve as a beacon of stability. A joint, transparent effort to resolve disputes and streamline financial policies can instill confidence among the population. This trust is pivotal; it forms the bedrock of any healthy financial system. When people trust their banks and the broader financial sector, they are more likely to save, invest, and participate in economic activities, which are essential for the overall economic recovery of Yemen.

International support and oversight can play a significant role in facilitating this collaboration. The global community can offer diplomatic support, expertise, and resources to mediate discussions and ensure that the dialogue between the central banks remains productive and focused on the welfare of the Yemeni people. International bodies can also provide oversight to guarantee that the collaborative efforts are transparent and in line with international best practices, further enhancing the credibility of Yemen's financial sector on the global stage.

The Central Bank of Yemen's supervisory role in the country's banking sector needs substantial improvement. The existing legal and regulatory frameworks lack alignment with universally accepted rule-of-law foundations on which implementation of international best practices depend for effectiveness. This undermines the Central Bank's credibility as a supervisor/regulator which prevents it from implementing effective macro- and microprudential as well as AML/CFT supervision and regulatory enforcement. The set of needed reforms in this area includes: 1) the imposition and enforcement of capital instructions and adherence to international standards, 2) the legal framework for the licensing process, 3) the legal framework for monetary sanctions and 4) the availability of sufficient regulatory resources.

The introduction of Open Market Operations to manage structural or short-term liquidity imbalances would be a desirable introduction that could enable CBY-Aden with a more flexible tool to achieve its price stability and monetary policy objectives. Apart from the recently introduced FX and treasury bills auctions, the Central Bank of Yemen lacks an official policy rate and operational framework for liquidity provision to the financial sector. Sound management of monetary policy is essential for controlling inflation, stabilizing the currency, and promoting economic growth. Implementing effective monetary policies can create a conducive environment for investments and economic development.

International support will also be instrumental in implementing the Action Plan outlined in the World Bank's 2022 Fiduciary Assessment of the Central Bank of Yemen. This plan encompassed crucial reforms in several key areas, including (but not limited to):

Improve the Central Bank's legal structure and autonomy

- Revise the Law 14 of 2000 to reinforce the independence of the Board. More specifically, remove the participation of the representative of the Minister of Finance from the Board, allow the selection of external auditor solely by the Board of Directors, clarify the process of dismissal of Board members, and expressly mention that Board members shall not receive instructions from third parties.

- Adopt regulations (bylaw or charter) outlining the governance structure of the Board of Directors. The bylaw or charter will clarify the roles, responsibilities, and procedures of the Board of Directors and create specialized Committees in charge of internal audit, risk and compliance, monetary policy, and human resources.

Improve the Central Bank's internal control systems

- Adopt Human Resources (HR) policy and procedures that reform recruitment, retention, compensation, and training of human capital.

- Review the organizational structure of the CBY and create a Risk and Compliance Department reporting to the Board.

- Adopt the International Financial Reporting Standards (IFRS) for accounting and financial reporting. The CBY should prepare a detailed guideline for IFRS and provide IFRS certificate training to staff.
- Develop and implement a risk management strategy, including a business continuity plan.
- Develop an Enterprise Resource Planning for Accounting and financial reports.
- Strengthen the Internal Audit Department.
- Prepare and implement climate risk and opportunities management policy.
- Prepare and implement a green procurement policy and regulations.

Improve the Central Bank's accountability and transparency

- Develop and implement external audit policy in line with international standards.
- Design and enforce a communication strategy levering the new technology of information.

Chapter 2.
The Banking Sector

THE LIMITED FOOTPRINT OF TRADITIONAL BANKING SERVICES IN YEMEN

Yemen's complex political and economic environment poses unique challenges to its banking system. As of the end of 2023, the country's financial sector is dominated by 17 traditional banks (Table 2). In recent years, seven new microfinance banks have been established, bringing the total number of microfinance banks to nine. Of the 17 traditional banks, 13 are Yemeni, including three state-owned and ten private banks, while the remaining 4 are foreign-owned. Commercial banks, which account for a majority of the banking sector's operations, offer a range of financial services, including savings and checking accounts, loans, and international transactions. However, access to banking services remains very limited, especially in rural and conflict-affected areas. Yemenis who lack access to formal banking services, or who do not trust the formal banking system, often rely instead on informal financial mechanisms.

The major challenges facing the banking system are political instability, an ongoing economic crisis, and liquidity issues. Prolonged political instability and armed conflict have disrupted the operations of the banking sector, and banks have been forced to close branches in conflict zones, reducing access to financial services. More recently, in the wake of renewed geopolitical tensions sparked by the conflict in the Middle East, recent Houthi-launched military operations aimed at disrupting Red Sea maritime traffic have prompted the designation of the Houthi organization as a Specially Designated Global Terrorist (SDGT) group by the U.S. administration. These unfolding events may introduce additional risks to the stability of the banking sector. Indeed, one of the main services that Yemeni banks are still offering is foreign currency management[28], mainly through money transfers by humanitarian actors and large private importers. Foreign actors' reduced confidence in Yemeni banks following the SDGT designation has the potential to further erode banks' capabilities to facilitate these essential services. This could even result in making humanitarian transfers more difficult and costly, or hinder private importer activities leading to a reduction in imports and an increase in prices, particularly as alternative financial service providers – such as international money transfer firms – are not believed to offer necessary capacity to service the needs of humanitarian actors and others. Furthermore, over-compliance measures, risk avoidance, and concerns over future designations and sanctions may disincentivize international exporters from working with Yemeni importers. This is especially the case when dealing with smaller Yemeni importers because such transactions do not provide international importers with sufficient incentive to ensure that transactions are legal. Moreover, compliance

28 During times of war, the focus of banks has shifted from providing core financial services like lending and accepting deposits to facilitating international transactions such as inflow and outflow transfers and letters of credit.

concerns could freeze long-term contracts and arrangements given the lack of clarity about the situation and the possibility of further designations. Meanwhile, soaring inflation rates have eroded the value of the Yemeni rial, diminishing household purchasing power. Liquidity constraints resulting from the government debt payments in non-cashable accounts and the associated deposit freezing make it difficult for banks to meet the financial needs of their customers.

Table 2 List of Banks Operating in Yemen

Banks	Type	Ownership	Nationality	Year of establishment
Yemen Bank for Reconstruction and Development	Commercial	Public	Yemen	1962
National Bank of Yemen	Commercial	Public	Yemen	1969
United Bank Limited	Commercial	Private	Pakistan	1971
Arab Bank	Commercial	Private	Jordan	1972
Yemen and Kuwait Bank	Commercial	Private	Yemen	1979
Yemen International Bank	Commercial	Private	Yemen	1980
Cooperative and Agriculture Credit Bank	Commercial	Public	Yemen	1982
Rafidain Bank	Commercial	Public	Iraq	1982
Yemen Commercial Bank	Commercial	Private	Yemen	1993
Yemeni Islamic Bank for Finance and Investment	Islamic	Private	Yemen	1995
Al-Tadhamon Bank	Islamic	Private	Yemen	1996
Saba Islamic Bank	Islamic	Private	Yemen	1997
Yemen Gulf Bank	Commercial	Private	Yemen	2001
Shamil Bank of Yemen and Bahrain	Islamic	Private	Yemen	2002
Qatar National Bank	Commercial	Public	Qatar	2007
Al-Amal Bank for Microfinance	Microfinance	Private	Yemen	2008
Al-Kuraimi Islamic Bank	Islamic	Private	Yemen	2010
Al-Kuraimi Islamic Microfinance Bank	Microfinance	Private	Yemen	2010
Al-Qutaibi Islamic Microfinance Bank	Microfinance	Private	Yemen	2021
Hadramout Commercial Bank	Commercial	Private	Yemen	2022
Aden Bank for Microfinance	Microfinance	Private	Yemen	2022
Al-Busairi Bank for Microfinance	Microfinance	Private	Yemen	2022
Alinma Bak for Islamic Microfinance	Microfinance	Private	Yemen	2022
Bin Dowal Islamic Microfinance Bank	Microfinance	Private	Yemen	2022
Shamoul Bank for Islamic Microfinance	Microfinance	Private	Yemen	2023
Sharq Yemen Bank for Islamic Microfinance	Microfinance	Private	Yemen	2023
First Aden Islamic Bank	Commercial	Private	Yemen	2024
Al-Qasemi Islamic Microfinance Bank	Microfinance	Private	Yemen	2024
Tamkeen Bank for for Microfinance	Microfinance	Private	Yemen	2024

Source: Central Bank of Yemen - Aden

Domestic and international efforts to stabilize the Yemeni banking sector are ongoing. Yemen has received external support to shore up the banking system and address the economic crisis. International organizations and donor countries have also provided humanitarian assistance and financial aid to alleviate the suffering of Yemeni households. With support from its international partners, the IRG has undertaken reform to strengthen the financial sector. In 2021, the Central Bank of Yemen-Aden introduced FX auctions as market rate and replaced the previous system of letter credit[29]. The FX auctions and sale of foreign currency at market price helped increase transparency in price discovery and increase available liquidity. on the other hand, the Central Bank of Yemen-Sana'a has also introduced new regulations for licensing money exchange companies limiting issuing new licenses for geographies with the current high concentration of money exchange shops and increasing the minimal initial capital for money exchange capital to increase their equity and resilience[30].

Achieving political stability and security is paramount to rebuilding the banking system. Efforts to resolve the conflict and reestablish an effective public administration are essential to restore confidence in the financial sector. Finally, promoting financial inclusion through microfinance, mobile banking, and the deployment of other innovative financial technologies can help expand access to banking services, especially in underserved areas. While it faces immense challenges, a combination of successful domestic efforts and sustained international support could enable Yemen to rebuild its banking system, restore economic stability, and improve the lives of its citizens.

The following bank-level analysis is based on data from Fitch Connect. These data cover eight banks operating in Yemen, which represented a combined 76 percent of the banking sector's assets as of 2019. The banks studied include two state-owned banks, three private commercial banks, two private Islamic banks, and two subsidiaries of foreign banks. In cases where the Fitch Connect database lacked comprehensive data, the financial statements of individual banks were obtained from the respective banks' websites. Relevant indicators were selected from bank balance sheets and income statements to illustrate the key characteristics of the banking sector and the state of financial intermediation. These indicators include asset quality, loan composition, government securities ownership, funding composition, deposit composition, deposit growth, and revenue sources.

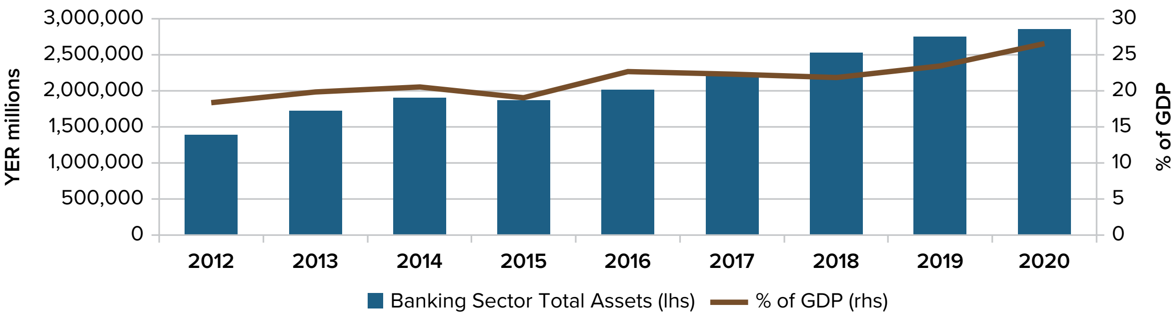
The historically low economic impact of Yemeni commercial banks, especially when compared to other economies in the region, can be attributed to a confluence of factors. Yemen's limited financial resources and relatively small market size have constrained the capitalization and lending capacity of its commercial banks, restricting their ability to engage in significant financial activities. Additionally, historically high political instability has hindered expansion and made investment challenging in such a volatile environment. Limited access to international markets and underdeveloped infrastructure further constrained banks' ability to grow and provide advanced financial services and expand their economic reach. Addressing these challenges, fostering political stability, enhancing infrastructure, and implementing regulatory reforms are crucial steps toward enabling Yemeni commercial banks to expand their economic footprint and contribute more significantly to the nation's economy.

29 International Monetary Fund (2022), "Republic of Yemen - Economic Developments", unpublished.
30 Central Bank of Yemen- Sana'a. (n.d.). Governor of the Central Bank Decision number (4) for the year 1444(H) regarding initial capital of money exchange companies and institutions. Central Bank of Yemen Sana'a.

While the banking sector represents a growing share of Yemen's economy, intermediation activities appear to be declining. The banking sector's assets have been on a volatile but rising trajectory since 2012 (Figure 17). Bank assets have increased as a share of GDP, indicating that the sector's share of the economy is growing in real terms. However, net loans as a share of assets have been declining since 2012 (Figure 18), and the median and average annual growth of gross loans have also decreased during the period (Figure 19). The loan portfolio as a share of assets fell from 12 percent in 2012 to 6 percent in 2020. Banks' loan-to-deposit ratios have declined since the start of the conflict, dropping from 18 percent in 2012 to 15 percent in 2020 (Figure 20). The decrease in lending activities highlights the waning intermediation role of the banking sector.

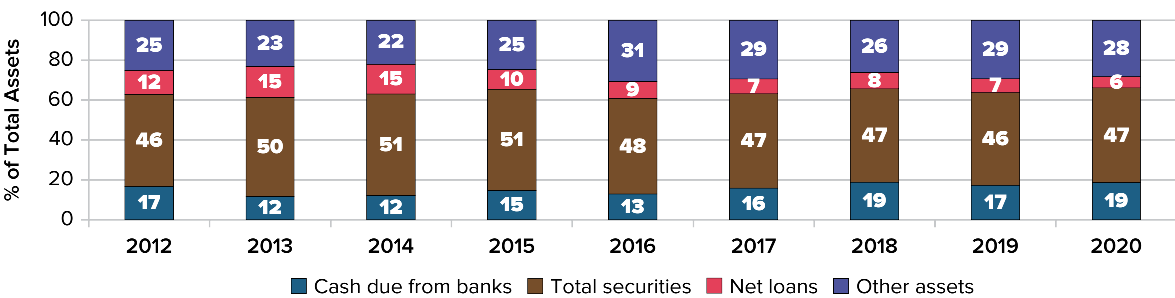
FINANCIAL HEALTH OF YEMENI BANKS: SIZE, QUALITY, AND PROFITABILITY

Figure 17 Bank Assets



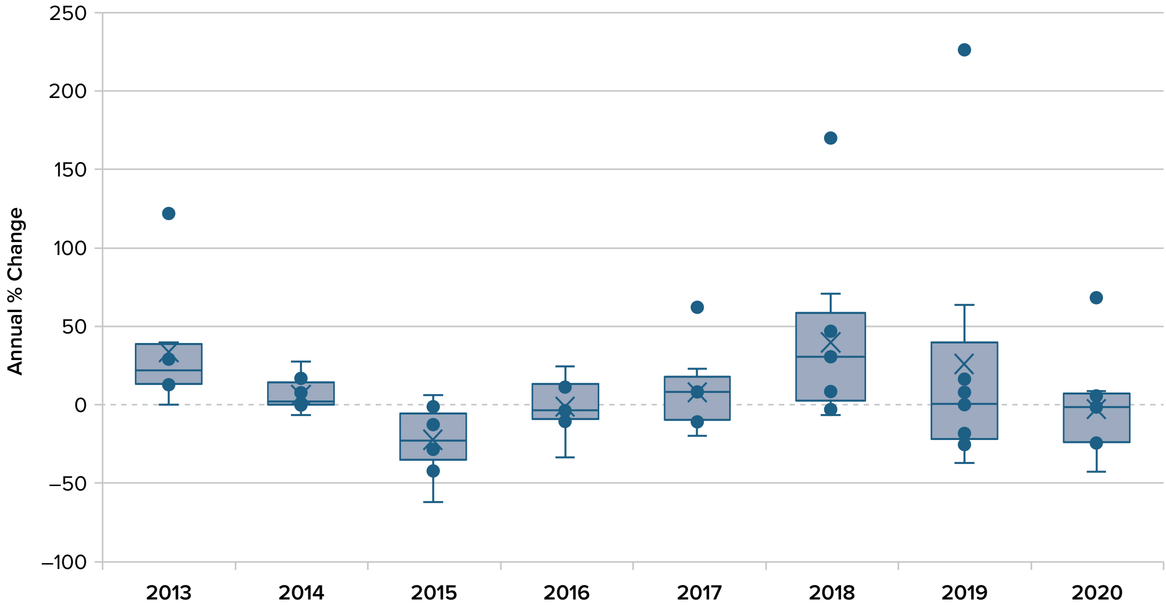
Source: Authors' calculation based on data from the IMF

Figure 18 Asset Composition



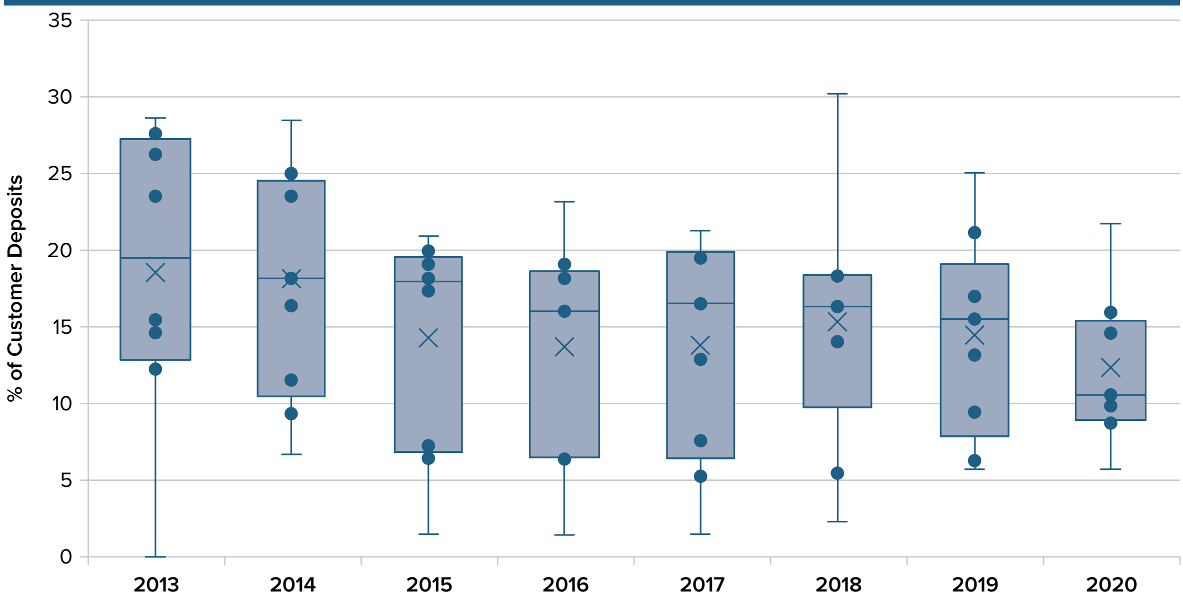
Source: Authors' calculation based on data from Fitch Connect

Figure 19 Growth of Gross Loans



Source: Authors' calculation based on data from Fitch Connect

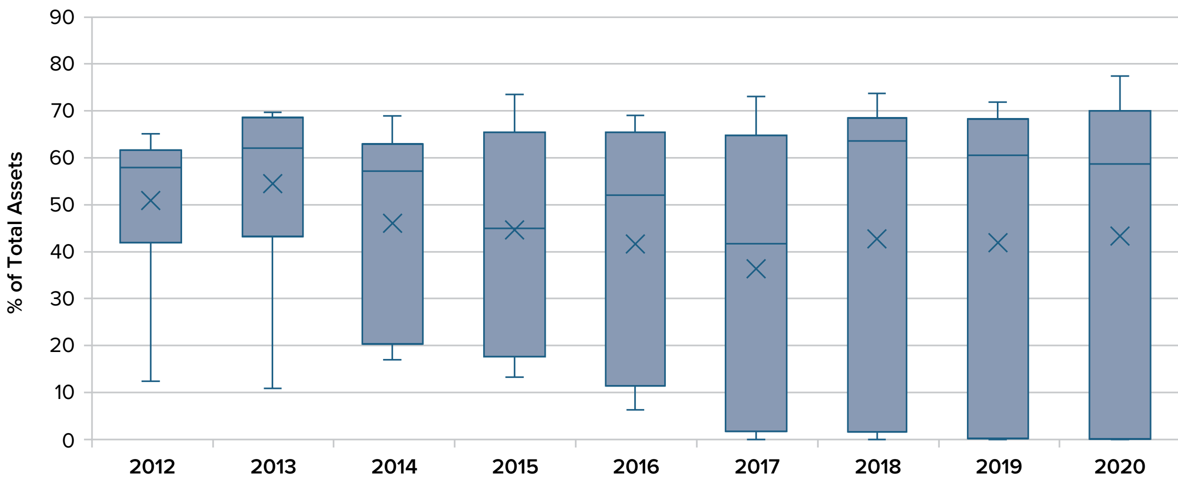
Figure 20 Loans to Customer Deposits



Source: Authors' calculation based on data from Fitch Connect

Trends in public debt ownership vary among banks, as state-owned banks have increased their public debt ownership, while private banks have divested. The widening distribution of public debt ownership between 2014 and 2020 indicates that some banks have reduced the size of their government securities portfolios while other banks have not (Figure 21). Banks that increased their investments in public debt tend to be state-owned banks such as Cooperative & Agricultural Credit Bank and the National Bank of Yemen. Meanwhile, most private banks have reduced their public debt holdings, with the notable exception of the International Bank of Yemen. This extent to which Yemeni banks are exposed to sovereign debt illustrates the magnitude of the sovereign-bank nexus, i.e., the close connection between banks and their respective governments. The interdependence between the government and the banking sector is evidenced by banks' high holdings of sovereign debt and by the government support for banks through implicit and explicit guarantees, which generates an adverse feedback loop where the health of banks and governments are closely correlated. State ownership of banks presents a direct risk channel that weighs on the stability of the financial sector. In Yemen's case, the government may have used mostly state-owned banks to absorb public debt at a time of heightened fiscal needs. As a result, state-owned banks have disproportionally large sovereign exposures.

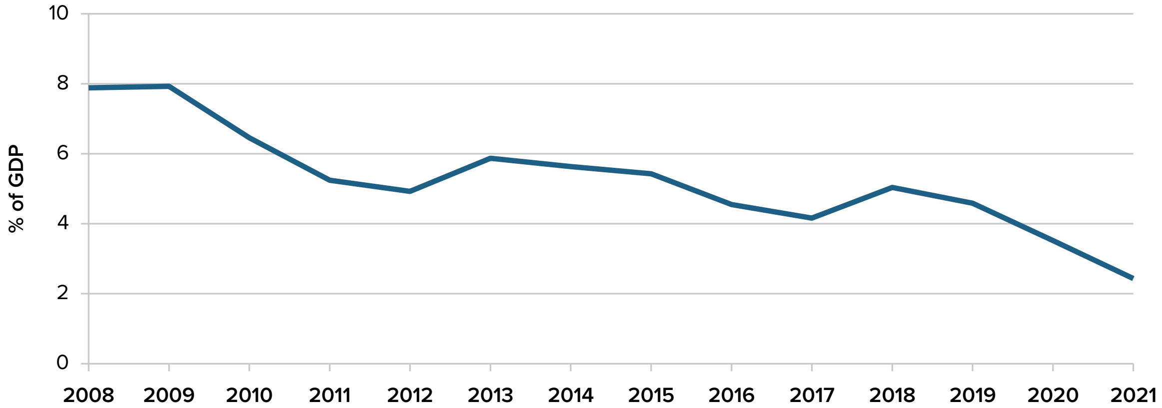
Figure 21 Holding of Government Securities



Source: Authors' calculation based on data from Fitch Connect

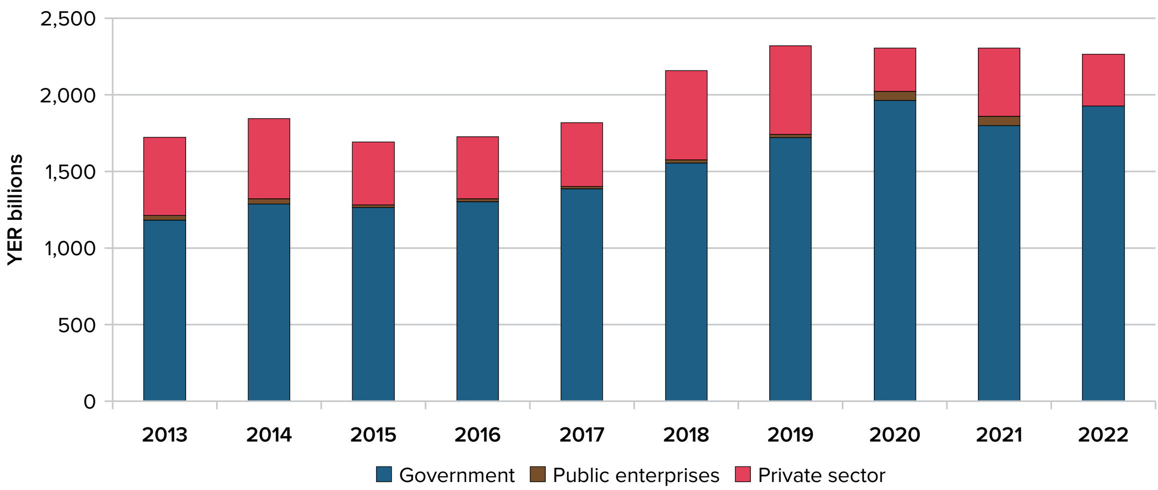
Persistently large holdings of government securities have crowded out private-sector lending, contributing to the decline in the already-low access of the private sector to credit. Private credit to GDP has been significantly low in Yemen even before the conflict. However, the conflict has further decreased the private sector credit's share of GDP from 9% in 2008 to 2% in 2021 (Figure 22). Banks' assets are predominantly allocated to financing the government rather than the private sector (Figure 23), and government securities consistently represent around half of the banking sector's total assets (Figure 24, Figure 25). By contrast, private-sector loans fell from 30 percent of total bank loans in 2013 to 15 percent in 2020. Loans to the government are illiquid investments, as the IRG has made these loans very difficult to cash.

Figure 22 Credit to the Private Sector



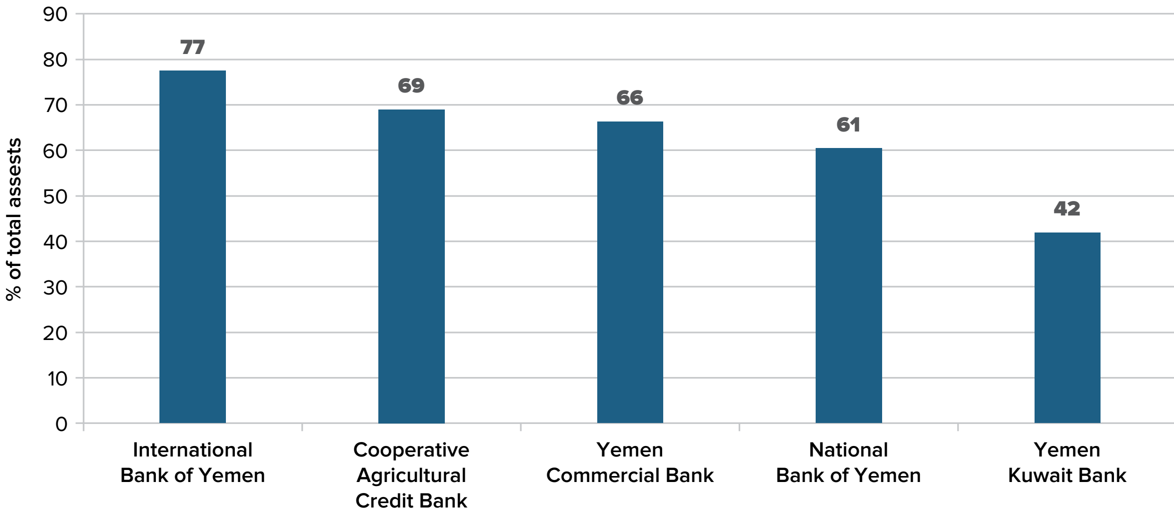
Source: Authors' calculation based on data from The Central Bank of Yemen - Aden and The World Development Indicators.

Figure 23 Banking Sector Loan Portfolio Composition



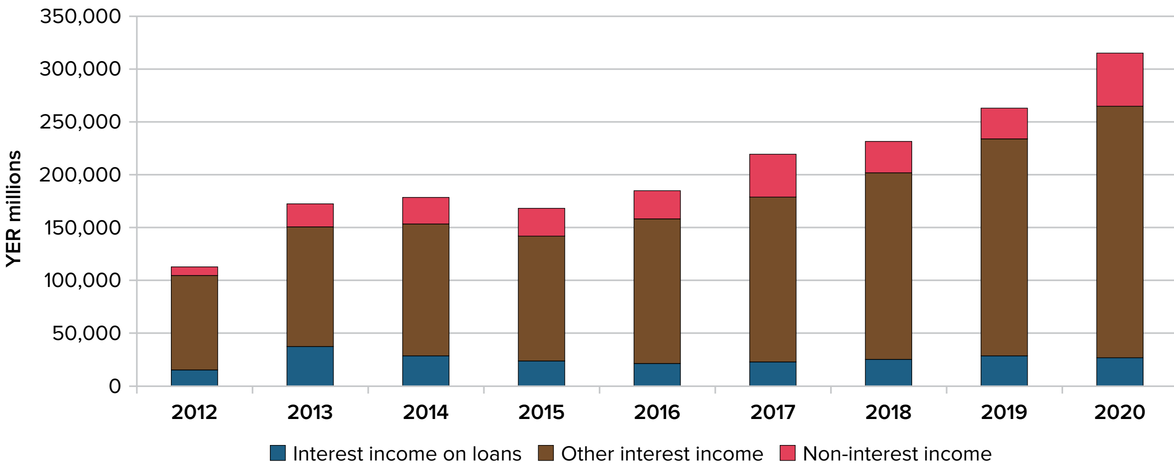
Source: Authors' calculation based on data from The Central Bank of Yemen - Aden (Monetary and Financial Developments, Issue No. 16, March 2023).

Figure 24 Holdings of Government Securities, 2020



Source: Authors' calculation based on data from Fitch Connect

Figure 25 Bank Revenue Composition

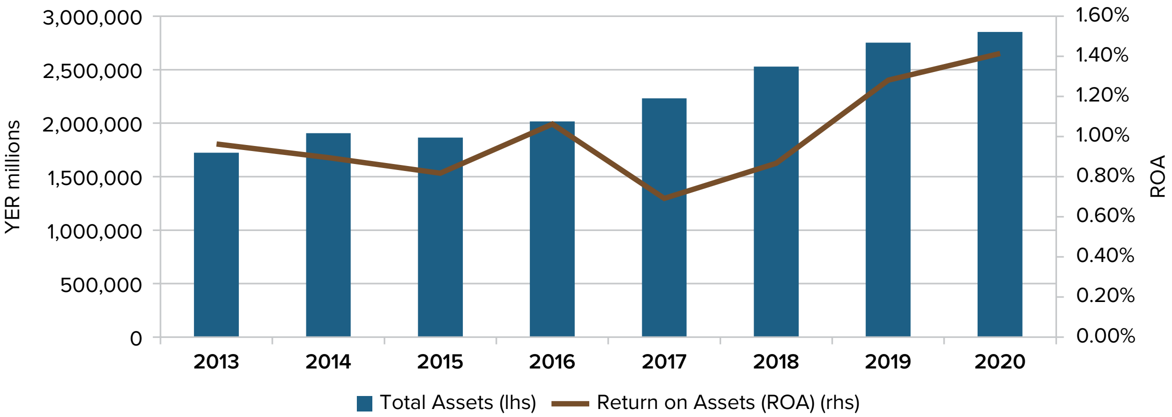


Source: Authors' calculation based on data from Fitch Connect

The dominance of government assets is also evident in the banking sector's revenue streams. Interest income from government securities remains a key revenue source for the banking sector (Figure 25). While the sector's return on assets performance is relatively healthy (Figure 26), interest income from government securities represents 80 percent of the gross interest income of the median bank, further underscoring the banking sector's high level of sovereign exposure. The sector's reliance on income from treasuries also leaves bank profitability exposed to shocks resulting from the recently announced anti-usury law, which is described in detail in the following subsection.

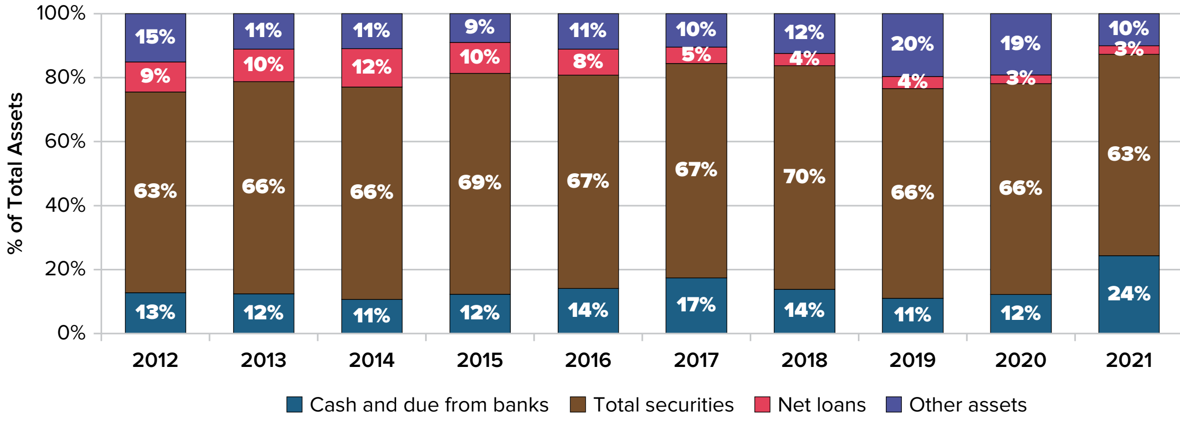
While government securities constitute a large share of the average bank's assets, the sovereign exposure of individual banks varies considerably, with state-owned banks having higher exposure to government debt (Figure 27 and Figure 28). Three banks, two of which are state-owned, account for about 60 percent of the banking sector's ownership of government securities. Most private Islamic banks, such as Tadhamon Bank and Al-Kuraimi Bank, have much smaller shares of government securities in their total assets (Figure 24). This imbalance highlights the disproportionate burden of supporting the government borne by state-owned banks during the conflict. As discussed in the previous section, government securities have had a negative real interest rate since 2016, thus the disproportionate ownership of government securities by state-owned banks contributes to their lower profitability compared to private banks (Figure 29).

Figure 26 Return on Assets



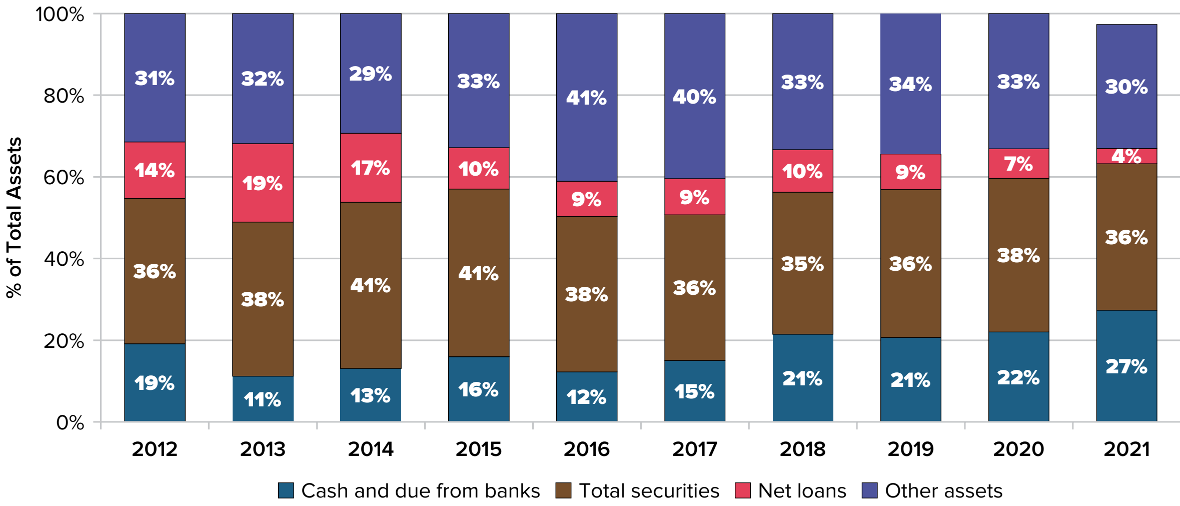
Source: Authors' calculation based on data from Fitch Connect

Figure 27 Asset Composition of State-owned Banks



Source: Authors' calculation based on data from Fitch Connect

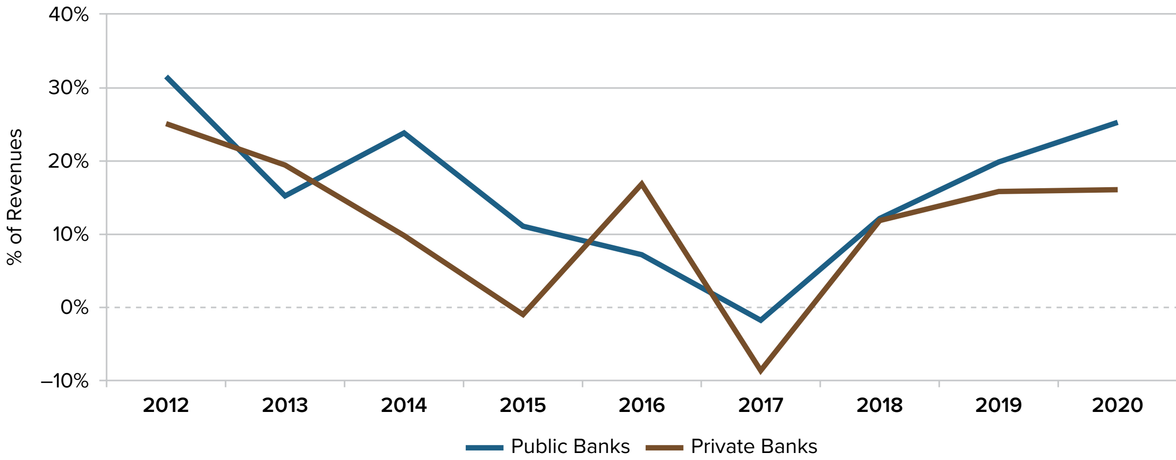
Figure 28 Asset Composition of Private Banks



Source: Authors' calculation based on data from Fitch Connect

Liquidity concerns and flight to liquidity have also contributed to the decline in intermediation activities. Cash and loans to banks increased from a combined 12 percent of total assets in 2014 to 19 percent in 2020. In addition to the growing share of cash in total assets, a declining credit-to-deposit ratio signals liquidity concerns. The credit-to-deposit ratio is an indicator of banks' liquidity preference, and a lower ratio indicates a preference for relatively liquid assets such as cash and loans to banks versus less liquid assets such as loans to the real sector.

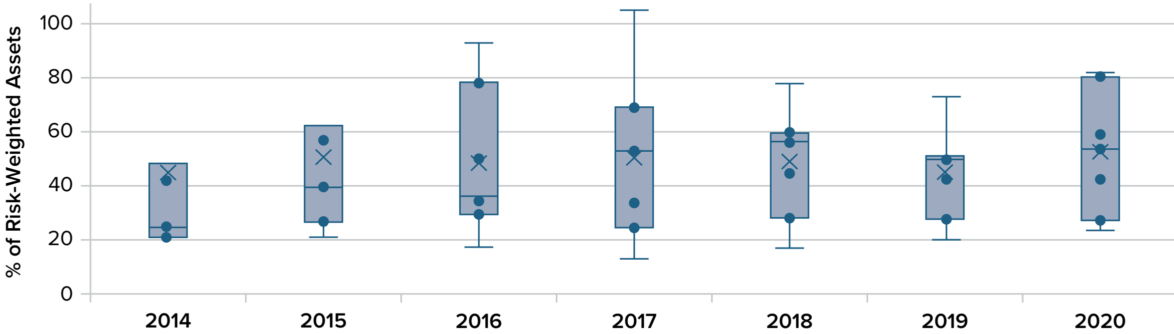
Figure 29 Net Profit Margin



Source: Authors' calculation based on data from Fitch Connect

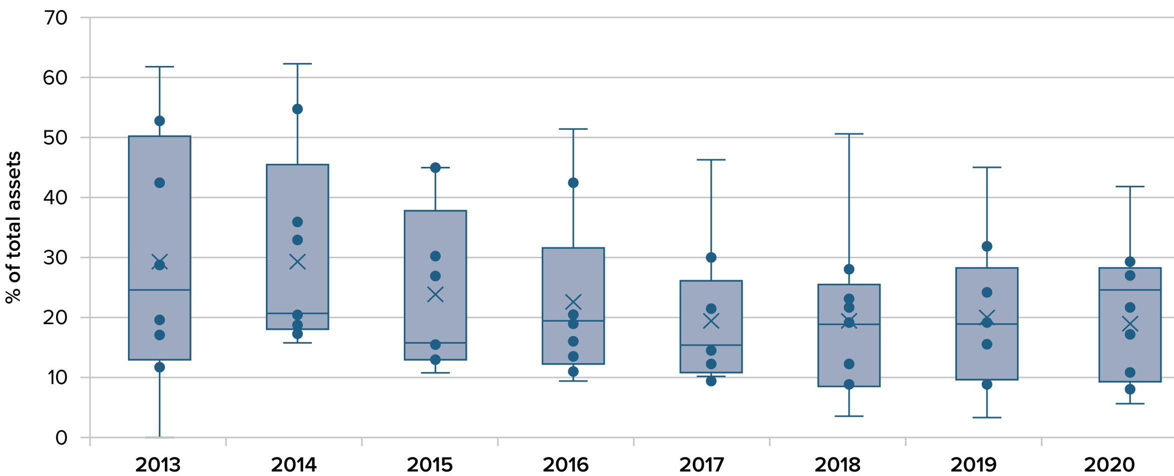
Despite growing liquidity concerns, the average capital adequacy of Yemen's banking sector appears strong; however, this assessment reflects the treatment of domestic government debt as a risk-free asset. The high ratio of government debt in total assets, combined with the accounting of government debt as risk-free, results in a large overall regulatory capital ratio for the banking sector (Figure 30). Even so, the sector's average total regulatory capital ratio and average risk-weighted assets both declined between 2014 and 2020 (Figure 31). The latter is consistent with the observed slowdown in commercial lending activities and avoidance of risky assets such as credit to the private sector.

Figure 30 Total Regulatory Capital Ratio



Source: Authors' calculation based on data from Fitch Connect

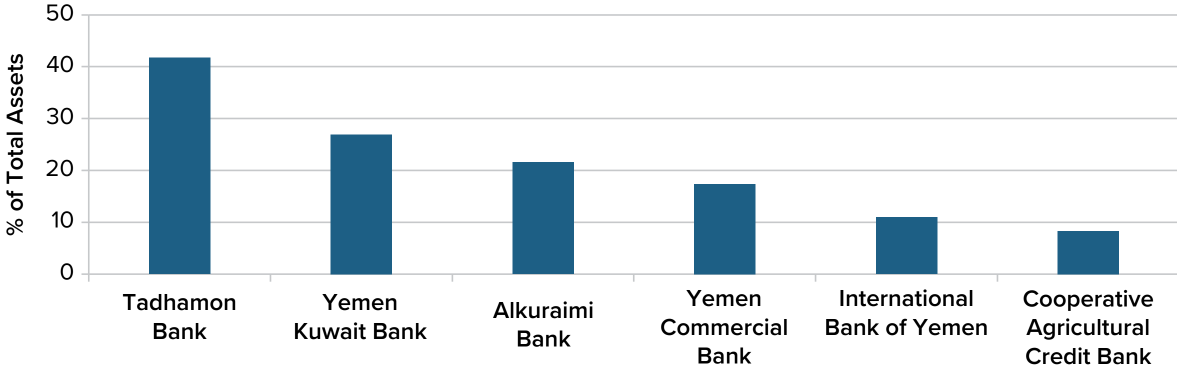
Figure 31 Risk-Weighted Assets



Source: Authors' calculation based on data from Fitch Connect

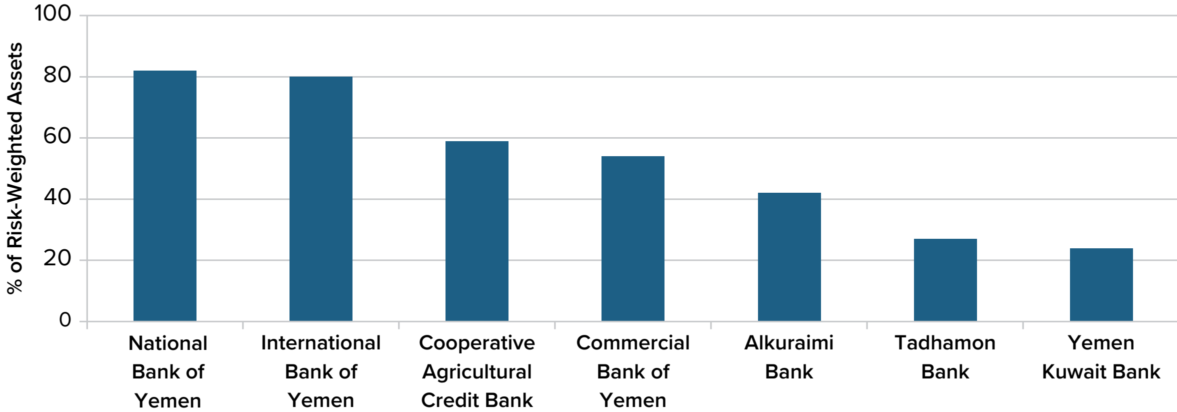
There is considerable variation in risk-weighted assets and capital adequacy across banks, particularly between traditional commercial banks and private Islamic banks. Most traditional commercial banks show strong capital and risk ratios due to the relatively large share of government securities in their total assets (Figure 32 and Figure 33). However, stress tests conducted by the Central Bank of Yemen-Aden using non-zero risk weights for government securities evidence the fragility of the banking sector. Private Islamic and microfinance banks, which have less sovereign exposure, also have much lower capital ratios and higher risk-weighted asset ratios. Consequently, having a smaller share of government securities in their portfolios contributes to the overall higher risk indicators of Islamic banks relative to state-owned and traditional private banks.

Figure 32 Risk-Weighted Assets, 2020



Source: Authors' calculation based on data from Fitch Connect

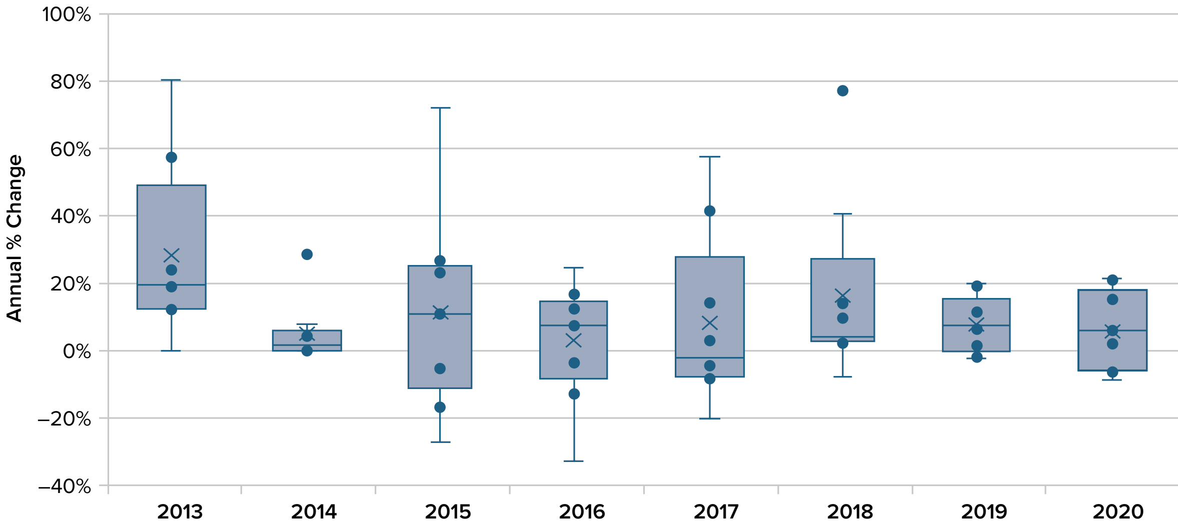
Figure 33 Total Regulatory Capital Ratio, 2020



Source: Authors' calculation based on data from Fitch Connect

The slowing growth of customer deposits since the start of the war provides a further indication of the fragility of Yemen's banking sector and the diminished public trust in banks (Figure 34). While many factors may have weakened customer deposits, uncertainty regarding the banking sector's liquidity likely eroded public confidence that their deposits would be secure and accessible. Meanwhile, by reducing the real value of deposits, the depreciation of the rial may encourage prospective depositors to seek alternative stores of value outside the banking system, such as holding foreign currencies. These factors provide a plausible explanation for the decline in customer deposit growth observed over the period.

Figure 34 Growth Rate of Customers Deposits

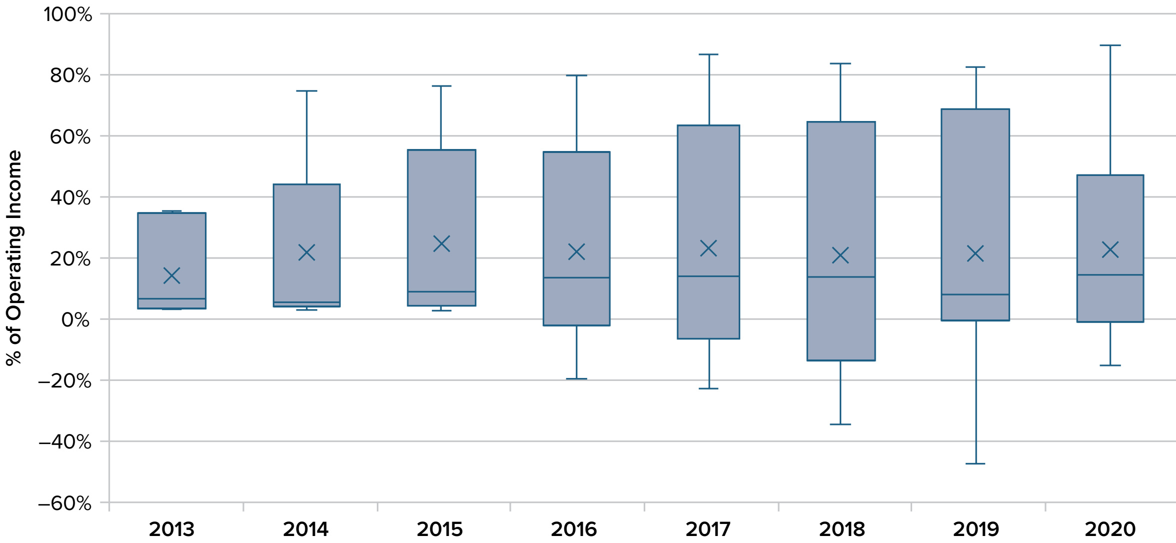


Source: Authors' calculation based on data from Fitch Connect

The differences in assets portfolios and capital indicators across different types of banks highlight the conflict's unequal effect on the different players in the financial markets. For instance, government securities represent the largest share of assets among state-owned banks, and thus their balance sheets are the most vulnerable to changes in the value of outstanding domestic debt. In addition, the varying importance of non-interest income[31] as a revenue source illustrates how the business models of private and Islamic banks differ from those of traditional commercial banks (Figure 35). Whereas non-interest income represents a large share of the operating revenue of Yemen Kuwait Bank and Al-Kuraimi microfinance bank, it represents a much smaller fraction of the revenue of the International Bank of Yemen, the National Bank of Yemen, and Cooperative Agricultural Bank of Yemen (Figure 36). Because they receive a larger share of their revenue from non-interest income, private and Islamic banks are less vulnerable to the cap on interest rates than traditional commercial banks.

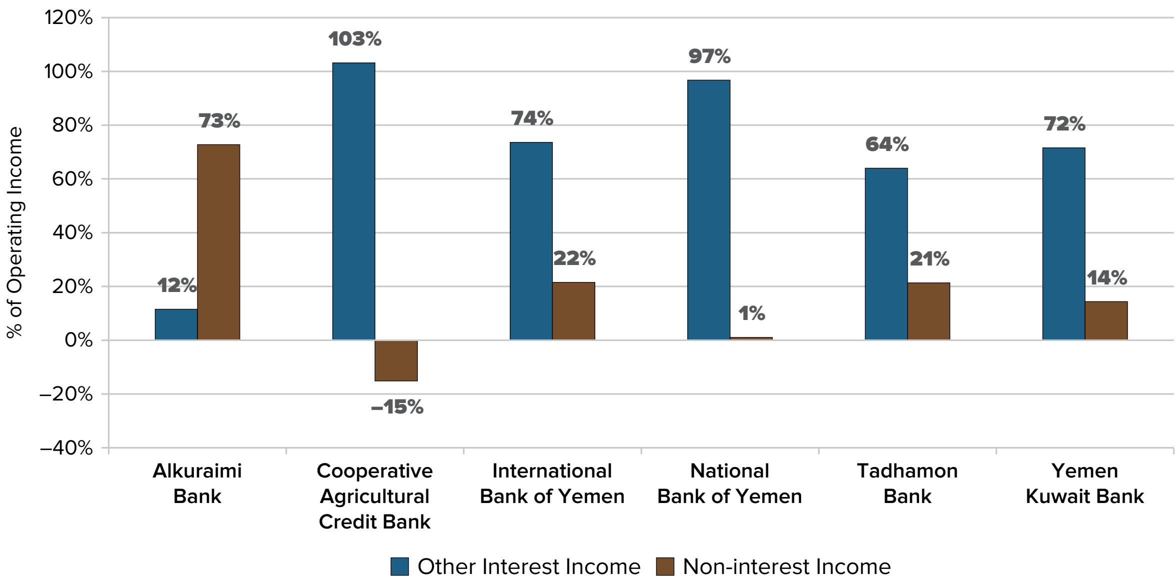
31 Non-interest income includes transaction fees, services fees, and net revenue from FX transactions.

Figure 35 Non-Interest Income



Source: Authors' calculations based on data from Fitch Connect

Figure 36 Other Interest and Non-interest Income

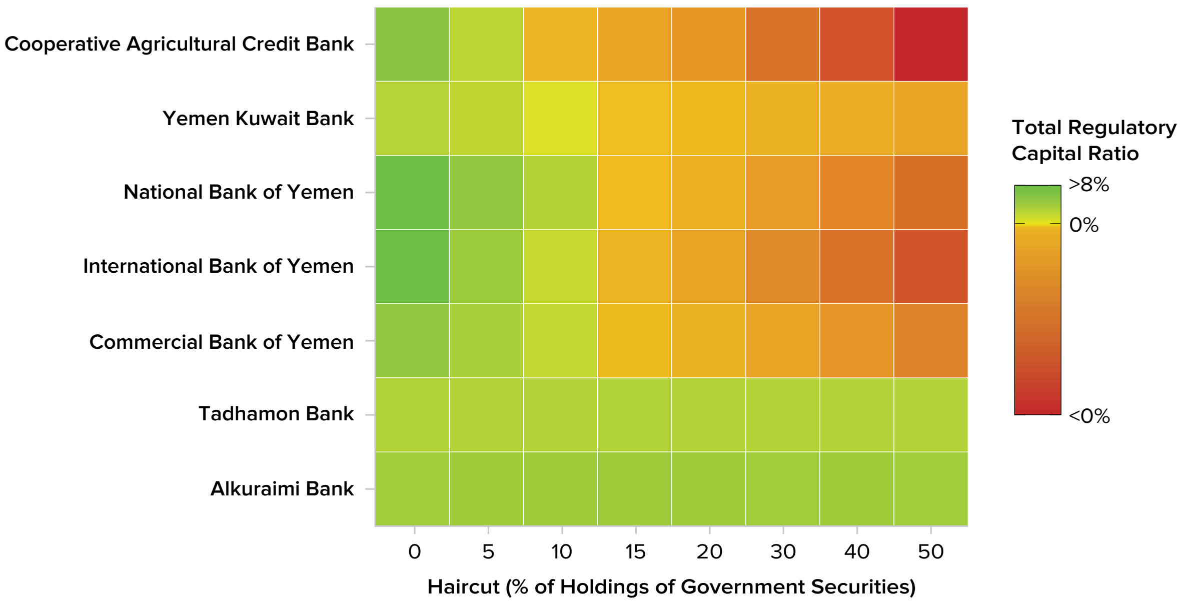


Source: Authors' calculation based on data from Fitch Connect

THE ANTI-USURY LAW

In March 2023, the DFA legislature passed a law that bans commercial and Islamic banks from lending at high-interest rates. The measure, if implemented, would effectively halt interest payments on traditional sovereign debt[32]. Given the heterogeneity of asset portfolios and capital composition described above, the law's impact is likely to differ substantially across different types of banks. A stress test conducted for this analysis reveals that large traditional and state-owned banks are particularly vulnerable to asset write-downs that may result from implementing the anti-usury law[33]. A write-down of about 20-30 percent of the value of sovereign debt holdings would deplete the capital buffers of the country's largest banks, such as the International Bank of Yemen, the Cooperative Agricultural and Credit Bank, and the National Bank of Yemen (Figure 37). Capital buffers of the country's largest banks would also not withstand a near-total write-off of interest income from government securities (Figure 38). However, due to their limited public debt ownership, non-state-owned banks' capital buffers would withstand the asset shock across all scenarios.

Figure 37 Haircut to Sovereign Debt Principal



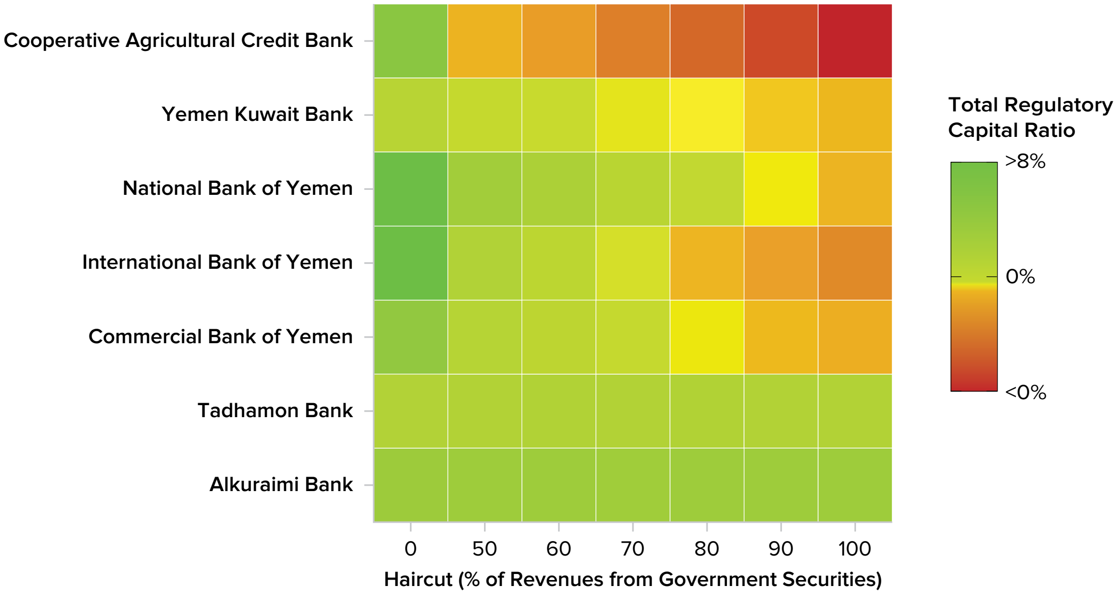
Total Regulatory Capital Ratio is expressed in percent of risk-weighted assets. The colors green, yellow, and red indicate total regulatory capital ratio above 8%, between 8% and 0% percent, and below 0%, respectively.

Source: Authors' calculation based on data from Fitch Connect

32 Rethinking Yemen's Economy Initiative (2023), unpublished.
33 The stress test methodology is illustrated in Appendix I

In addition to its impact on the stability of the banking sector, the implementation of the anti-usury law threatens the functionality of the pension system in Yemen. As of 2021, pension funds owned about 15 percent of all outstanding domestic public debt. Public debt accounts for the vast majority of the assets of pension funds both for public- and private-sector employees (Figure 39), and thus the Funds rely on interest payments on public debt for a large share of their revenue. By halting interest payments on public debt, the implementation of the anti-usury law would effectively transfer income from pension recipients to the government, with deeply negative implications for household welfare and development outcomes.

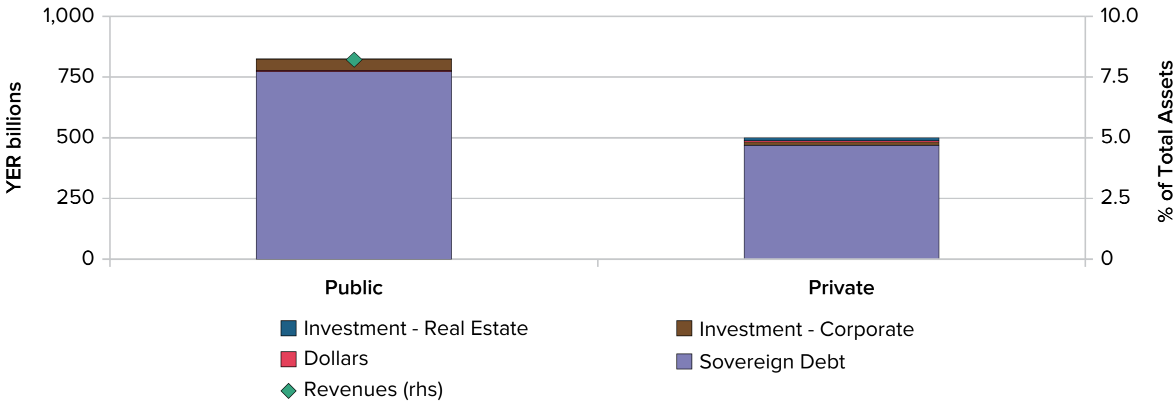
Figure 38 Haircut to Sovereign Debt Interest



Total Regulatory Capital Ratio is expressed in percent of risk-weighted assets. The colors green, yellow, and red indicate total regulatory capital ratio above 8%, between 8% and 0% percent, and below 0%, respectively.

Source: Authors' calculation based on data from Fitch Connect

Figure 39 Asset Composition of Yemeni Pension Funds



Source: Authors' calculation based on data from informants

Box 4 The Business Models of Yemeni Banks: The Cases of CAC and Tadhamon Bank

The state-owned Cooperative & Agricultural Credit Bank (CAC Bank), headquartered in Sana'a, was established in 1982 following the merger of two other public banks. Originally envisioned to finance activities in the agricultural and fishing sectors, CAC Bank broadened its services in 2004 to include all economic sectors in alignment with the government's development initiatives. CAC Bank's assets rose from YER 55 billion in 2006 to YER 305 billion in 2010 and reached YER 500 billion in 2014. However, public debt represented 65 percent of CAC Bank's assets in 2014, the government frequently used the bank's 46 branches to disburse salaries for teachers and other civil servants. CAC Bank also held government accounts and provided financial services to key government institutions.

The conflict has had a profound impact on CAC Bank. Because government securities made up a majority of its assets, CAC Bank's interest income and liquidity plummeted after the CBY-Sana'a stopped making interest payments on public debt in 2016. The suspension of salary payments for civil servants aggravated the bank's financial challenges. Nevertheless, CAC Bank's total assets grew by 38 percent from 2016 to 2021, and it managed to increase its liquid assets slightly between 2020 and 2021. CAC Bank has also been working with the CBY-Sana'a to expand the use of electronic payments and reduce reliance on cash amid the current liquidity crisis in the DFA-controlled regions. However, the introduction of the anti-usury law in March 2023 prompted the CBY-Sana'a to suspend interest payments on all bank investments, including those of CAC Bank. The repercussions of this law remain uncertain, given the ambiguity surrounding its application and the unclear potential for CAC Bank and other banks to recover their initial investments.

Box 4 The Business Models of Yemeni Banks: The Cases of CAC and Tadhamon Bank *(Continued)*

In October 2018, IRG president Abdrabbuh Mansour Hadi appointed a new interim CEO for CAC Bank and moved its headquarters to Aden. CAC Bank became the second public bank headquarters in Aden after Ahli Bank. Efforts to preserve CAC Bank's unity and international connectivity foundered amid the economic rivalry between the IRG and DFA, and CAC Bank Sana'a was disconnected from the international SWIFT network a few months after the relocation of its headquarters. Nevertheless, the Sana'a branch continued to operate, supporting DFA institutions in Sana'a and selected private clients, and it sporadically disbursed public-sector salaries for the DFA when liquidity permitted. Meanwhile, CAC Bank Aden transformed its business model to favor low public debt exposure, robust liquid assets, and non-interest income generated by catering to commercial clients through trade finance and by capitalizing on the Saudi-backed line-of-credit program. CAC Bank Aden also participated regularly in the FX auctions run by the CBY-Aden. When the CBY-Aden issued its first shari'ah-compliant bond (*sukuk*) during the conflict, the CAC Aden was encouraged to invest through its Islamic-finance division, though it maintained its limited sovereign exposure, with public debt representing just 15 percent of its total assets as of 2021.

Tadhamon Bank was established in 1995 and headquartered in Sanaa. It was among Yemen's first Islamic and private banks, and it currently has over 700 employees. The bank's largest shareholder is the Hayel Saeed Anam Group, a family-owned conglomerate based in Taiz. Operating under the guidance of its Shari'ah Supervisory Board, Tadhamon Bank offers a range of Islamic financial services, including cost-plus financing (*murabaha*) and risk-sharing (*mudaraba*), through its 37 branches. Tadhamon established a microfinance network in 2006 and started investing in *sukuk* in 2014.

Since the start of the conflict, Tadhamon Bank has faced an exceptionally challenging environment. In November 2020, the bank was accused of conducting illegal financial transactions and currency speculation, and its headquarters in Sana'a was temporarily shuttered, disrupting its operations for several days. In 2021, the DFA again forced the temporary closure of the bank's headquarters and confiscated computers and other IT assets after the bank's management refused an order from the Public Prosecutor's Office to seize VIP accounts. In a letter to the CBY-Sana'a, the bank noted that the International Sanctions Committee had warned against complying with this directive, as doing so could have conflicted with international AML/CFT rules.

Despite these challenges, Tadhamon Bank remains one of Yemen's largest banks. The bank has protected its dominant position by facilitating remittances and other international transfers, expanding its microfinance operations, and launching an e-wallet service. Tadhamon bank also continues to play a major role in enabling cross-border trade in basic commodities. Its e-wallet

Box 4 The Business Models of Yemeni Banks: The Cases of CAC and Tadhamon Bank *(Continued)*

service, Mahfathati, has eased the economy's dependence on cash, while its Tadhamon Pay payment network is used for domestic transfers and remittances from Saudi Arabia.

In 2022, Tadhamon Bank's total assets remained close to their pre-conflict level at over YER 500 billion. During the first few years of the conflict, the bank made the strategic decision to reduce its *sukuk* public debt holdings from 20 percent of total assets to nearly zero. Between 2015 and 2019, as the investment climate deteriorated, fees and commissions became an important source of revenue for the bank. The introduction of the DFA's anti-usury law in March 2023 is likely to impact Tadhamon's business model, as it bans *Murabaha*. However, the law's ultimate impact remains uncertain due to the ambiguity surrounding its application.

POLICY RECOMMENDATIONS FOR THE BANKING SECTOR

The analysis of the Yemeni banking sector paints a complex picture marked by significant disparities. The sector, already fragile and strained, has been further destabilized by a decade-long conflict (Box 4). Historically, Yemen's banking sector struggled with low participation in the economy and inherent vulnerabilities, aggravated by a sizeable sovereign-debt nexus. The proposed anti-usury law, if passed, threatens to deal a devastating blow to several prominent Yemeni institutions, thereby exacerbating the sector's woes and adversely affecting the entire economy.

In light of these challenges, it is imperative for the OSESGY to establish an Economic Track to de-escalate what can be perceived as economic warfare between both sides, and work toward reconciliation. This could include the revision and roll back of decisions and policies such as the anti-usury law issued in Sana'a and has increased fragmentation. Simultaneously, the Yemeni Internationally Recognized Government should look for opportunities to safeguard the banking sector without adding tension between both sides. This entails safeguarding the banking sector against AML/CTF risks, creating innovative incentives and investment prospects, aimed at revitalizing confidence in the banking sector and enabling these institutions to attract fresh deposits. Contingency plans should also be developed to mitigate the potential fallout, should the Anti-Usury law come into full effect, and banks face financial distress.

Considering the probable non-viability of many banks, consolidation within the banking sector appears inevitable. Institutions overly exposed to the sovereign might need to be wound down, and their viable assets acquired by financially healthier banks. However, Yemen lacks a comprehensive legal and regulatory framework for macroprudential stability. Risks stemming from financial institutions and their interconnectedness with the broader economy are not adequately assessed, and there are no mechanisms in place to identify and mitigate these risks if they materialize. Furthermore, despite having a legal basis for effective recovery and resolution, Yemen has yet to issue detailed regulation on this matter.[34]

In this context, crisis management will become an essential component of the supervision of Yemeni financial institutions. Yemen, under its current conditions, urgently requires the adoption and establishment of a basic legal and regulatory foundations to support appropriate frameworks to address these critical issues, which go to the heart of establishing credibility of respective supervisory/regulatory institutions. Therefore, the Central Bank of Yemen (CBY), considering the prevailing circumstances, should take proactive measures to adopt a comprehensive and rule-of-law based legal and regulatory foundation. Such a framework is essential not only to navigate the challenges posed by the anti-usury law but also to fortify the overall stability and resilience of the Yemeni banking sector amidst ongoing conflict and political instability.

34 The IMF and World Bank are currently supporting efforts by CBY-Aden to introduce recovery and resolution regulation.

Chapter 3.
Money Transfer & Exchange Services

THE BUSINESS OF MONEY EXCHANGERS

Yemen's money transfer and exchange services (hereafter "money exchangers" have thrived during the conflict by performing a relatively simple yet critical set of services. Money exchangers facilitate domestic and international payments by operating networks that blend formal and informal channels. These payments, which include remittances and trade finance, have enabled a continual flow of imports and helped sustain household consumption during the conflict. By maintaining large cash reserves and efficiently mobilizing liquidity, money exchangers have become critical to macroeconomic stability in Yemen. Much like banks and other formal financial intermediaries, money exchangers generate revenue by charging transaction fees. While some studies have suggested that money exchangers may compete with traditional banking, in Yemen they complement the banking system and display a high degree of interconnectivity with banks.

Money exchangers are primarily involved in the exchange of foreign currencies. By allowing individuals and businesses to convert foreign currencies into Yemeni rials and vice versa, money exchangers directly enable international trade and financial transactions. With a limited number of functional banks facing frequent service disruptions, money exchangers provide a crucial source of liquidity and ensure that individuals and businesses can access cash when needed, which is particularly important in times of economic uncertainty. Money exchangers facilitate the receipt and distribution of remittances from the large Yemeni diaspora, which are a key component of household consumption. Money exchangers also play an important role in determining the market exchange rate, which can diverge significantly from the official exchange rate set by the CBY-Aden. Because the availability of, and demand for, foreign currencies in the informal market can affect the value of the rial, money exchangers help maintain a predictable exchange rate for everyday transactions.

While money exchangers have flourished during the conflict, they continue to face important challenges, and their underregulated growth poses significant risks to the Yemeni financial system. Money exchangers handle large volumes of cash in a highly insecure environment, which can make them channels for money laundering, terrorist financing, proliferation financing and other financial crimes including corruption, theft, or extortion (Box 5). In addition, the informal environment in which money exchangers operate is exacerbated by the current conflict and by the lack of supervisory/regulatory capacity to support comprehensive supervision and regulation of the financial sector. This deepens the vulnerabilities of the Yemeni financial sector to illicit financial activities and will continue to discourage foreign financial (correspondent) institutions from establishing relations with domestic financial institutions, limiting access to the global financial system. When comparing Yemen to regional peers, the case of Somalia serves as a relevant example of the adverse effects of institutional fragmentation, whereby the closure correspondent banking relations impedes the flow of remittances, humanitarian aid, and foreign investment (Box 6).

Box 5 Financial Integrity Controls in Yemen

Yemen's Central Bank and financial intelligence unit have joint oversight for financial integrity supervision of both financial and non-financial institutions[35]. Yemen's anti money laundering and counter terrorist financing (AML/CFT) controls were last comprehensively assessed by the international community in 2008. At that time, the evaluation team identified significant deficiencies in Yemen's AML/CFT legislation. As a result, in 2010 the international standard setting body on anti-money laundering, known as the Financial Action Task Force (FATF), added Yemen to its list of jurisdictions with systemic AML/CFT deficiencies. Since then, Yemen has made important progress to strengthening its legislation, including through reforms (1) to adequately criminalizing money laundering and terrorist financing; (2) to establish a fully operational and effectively functioning financial intelligence unit, and (3) to develop the supervisory capacity of the financial sector supervisory authorities[36].

Despite these reforms, due to the security situation, as of December 2023 the global standard setter has been unable to conduct an on-site visit to confirm whether the required reforms and actions are being sustained. Similarly, the international community have been unable to visit Yemen to conduct an updated evaluation against the revised global AML/CFT standards, which now look at both legislation and the effectiveness of the system in practice in preventing money laundering and terrorist financing. **The ongoing conflict and the resulting lack of an up-to-date diagnostic of Yemen's financial integrity controls significantly inhibits Yemen's integration into the formal international financial sector**, by severely restricting correspondent banking relationships and incoming foreign investment.

While the ongoing conflict severely restricts AML/CFT efforts, US aid have been providing targeted support to Yemeni central bank and financial intelligence unit (FIU) to advance certain reforms. For example, both authorities recently signed a memorandum or understanding to further clarify the division of financial integrity supervisory responsibilities and have developed guidelines for on and off-site inspections. Nevertheless, until the conflict ends, the powers and geographic oversight of both entities to enforce compliance in practice across the formal and informal sector will be limited.

Considering Yemen's current context, authorities should focus as a matter of priority on (1) developing an understanding of the current money laundering and terrorist financing risks

35 In addition to financial traditional institutions, the global anti-money laundering Standards require countries to regulate various non-financial sectors for AML/CFT purposes, such as accountants, lawyers, notaries, casinos, and precious metals and stone dealers.
36 https://www.fatf-gafi.org/en/publications/High-risk-and-other-monitored-jurisdictions/Increased-monitoring-october-2023.html

Box 5 Financial Integrity Controls in Yemen *(Continued)*

within the financial and non-financial sectors; (2) on bringing financial sector actors such as money exchangers and their customers into the formal sector, (3) ensuring that the private sector have the knowledge and capacity to identify the ultimate beneficial owner of funds; and (4) that supervisors have the powers and resources available to act in cases of non-compliance.

Box 6 Money Transfer Businesses: The case of Somalia

Remittances have long served as a crucial lifeline for Somalia's economy, especially amidst the turmoil of the past twenty-five years. In 2024, remittances were estimated to reach a substantial US$ 2.3 billion, constituting approximately 20.6% of the GDP.[37] Presently, the predominant channel for remittance transfers is through Money Transfer Businesses (MTBs), a model that Yemen has also adopted, with some MTBs even evolving into functioning as banks. Given the similarities between Somalia and Yemen in terms of their network of money exchangers, the regulatory initiatives undertaken by the Central Bank of Somalia (CBS) to oversee MTBs could offer valuable insights for Yemen's case. Additionally, the challenges encountered by Somali intermediaries in Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) efforts bear resemblance to those faced by their Yemeni counterparts.

Currently, the CBS has licensed 20 commercial banks, 13 registered/licensed MTBs, and 3 mobile network operators (MNOs) to provide mobile banking, money transfer, and mobile money services respectively. This regulatory framework was established through the enactment of the Money Transfer Business Registration Regulations and Money Transfer Business Licensing Regulations in 2014, developed with assistance from the World Bank. The CBS has bolstered its supervisory capabilities, instituting rigorous annual licensing processes and on-site examinations for MTBs. Furthermore, improvements in data reporting by banks and MTBs have been observed, partly attributed to the implementation of recent asset classification regulations. Notably, regulations specific to mobile money have also been introduced.

Regarding AML/CFT, Somalia's Financial Reporting Center (FRC) commenced operations in the latter half of 2018, facilitating the reporting of suspicious and large transactions. With assistance from the IMF, regulations for the implementation of the Targeted Financial Sanctions (TFS) Bill were drafted. The completion of a National Risk Assessment (NRA) on Money Laundering

37 2023 Somalia Enhance Heavily Indebted Poor Countries Initiative – Completion Point Document. IMF Country Report No 23/424. December 2023.

Box 6 Money Transfer Businesses: The case of Somalia *(Continued)*

and Terrorism Financing marked a significant milestone. Key advancements in AML/CFT include the publication of the National ML/FT Risk Assessment (NRA), the enactment of the Targeted Financial Sanctions Law (TFSL), and the issuance of corresponding regulations, all in anticipation of the upcoming MENA-FATF Mutual Evaluation in 2024.

The introduction of the National Payment System (NPS) by the CBS in 2021 represents a major stride forward. This infrastructure enables interoperability among all banks in the country, facilitating seamless transactions and fostering financial system stability and efficiency. Moreover, the NPS is expected to promote higher turnover within the system over time and enhance financial inclusion across Somalia.

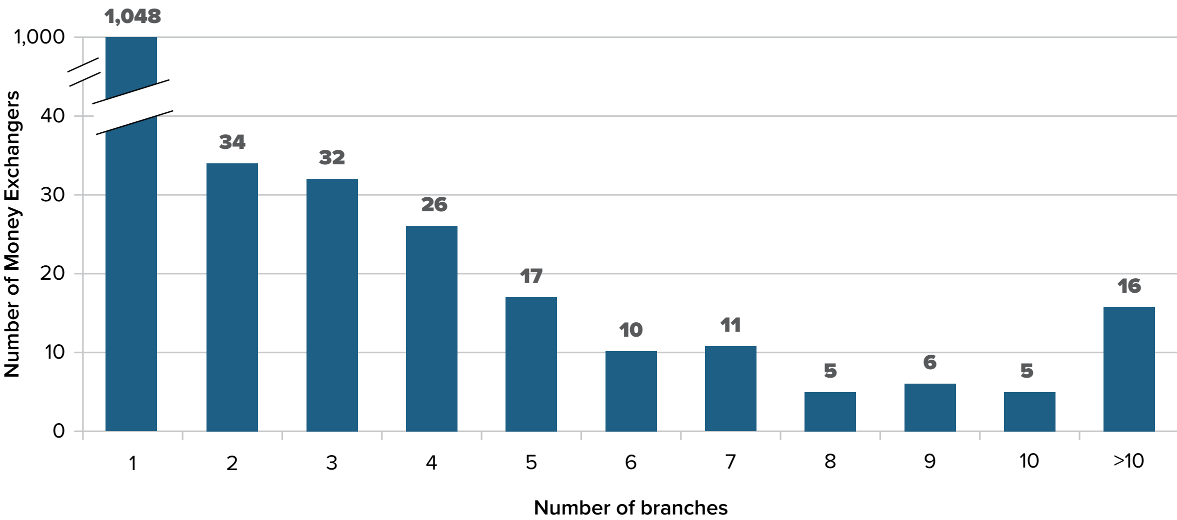
Despite these advancements, Somali financial intermediaries, particularly MTBs, have encountered challenges such as de-risking in international markets. Like Yemeni banks, Somali banks are perceived as high-risk for Money Laundering and Terrorist Financing. Issues surrounding Know Your Client (KYC) regulations, relatively weak oversight of MTBs, and the absence of reliable identification systems persist. Without further progress in strengthening AML/CFT frameworks, Somalia risks being cut off from international markets, hindering the flow of remittances, investment, and official development assistance.

The government and its international partners should work to develop a regulatory framework for money exchangers designed to improve transparency, combat illegal activities, and promote financial stability and integrity. Yemeni institutions should continue their efforts to strengthen the monitoring of money exchangers, recognizing them both as sources of systemic fragility and potential drivers of future development. Recent efforts by CBY-Aden that established a monitoring and risk assessment tool for money exchangers is a critical step towards increases transparency. CBY Aden has also been providing training and support to money exchangers to improve their compliance with regulatory standards and enhance their ability to operate safely and securely. Moreover, progress by CBY-Aden to support some of the large money exchangers' process of applying for banking license is a step towards long term integration of money exchangers into financial intermediation activities. After the conflict has been resolved, certain money exchangers may possess the scale and technological capabilities to effectively reach the country's largely untapped depositor base and meet the demand for savings accounts and other basic financial services. Yemeni institutions should proactively facilitate this transition and establish the groundwork for a level playing field that mitigates fragility and encourages healthy competition. Efforts to stabilize the exchange rate through economic reforms and financial assistance can also reduce volatility and ease reliance on informal exchange markets.

The waning economic importance of traditional banks has given rise to a shadow banking

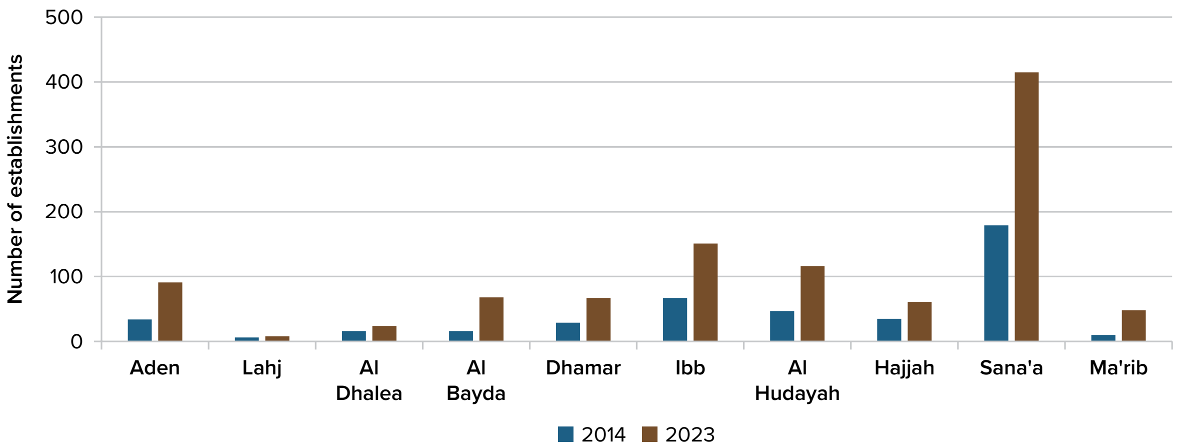
sector led by money exchangers. These companies play a vital role in facilitating international money transfers, which makes their operations critical to sustaining the flow of imports, exports, and remittances. Moreover, given the disconnect between banks in the north and south, money exchangers have stepped in to transfer funds across zones of control. The number of money exchanges operating in Yemen and the extent of their branch networks have both increased rapidly in recent years (Figure 40 and Figure 41). The number of money exchangers in Sana'a rose from 179 in 2014 to 415 in 2023, while the number in Aden rose from 34 to 91.

Figure 40 Distribution of Money Exchangers



Source: Author's calculation based on from the Central Bank of Aden

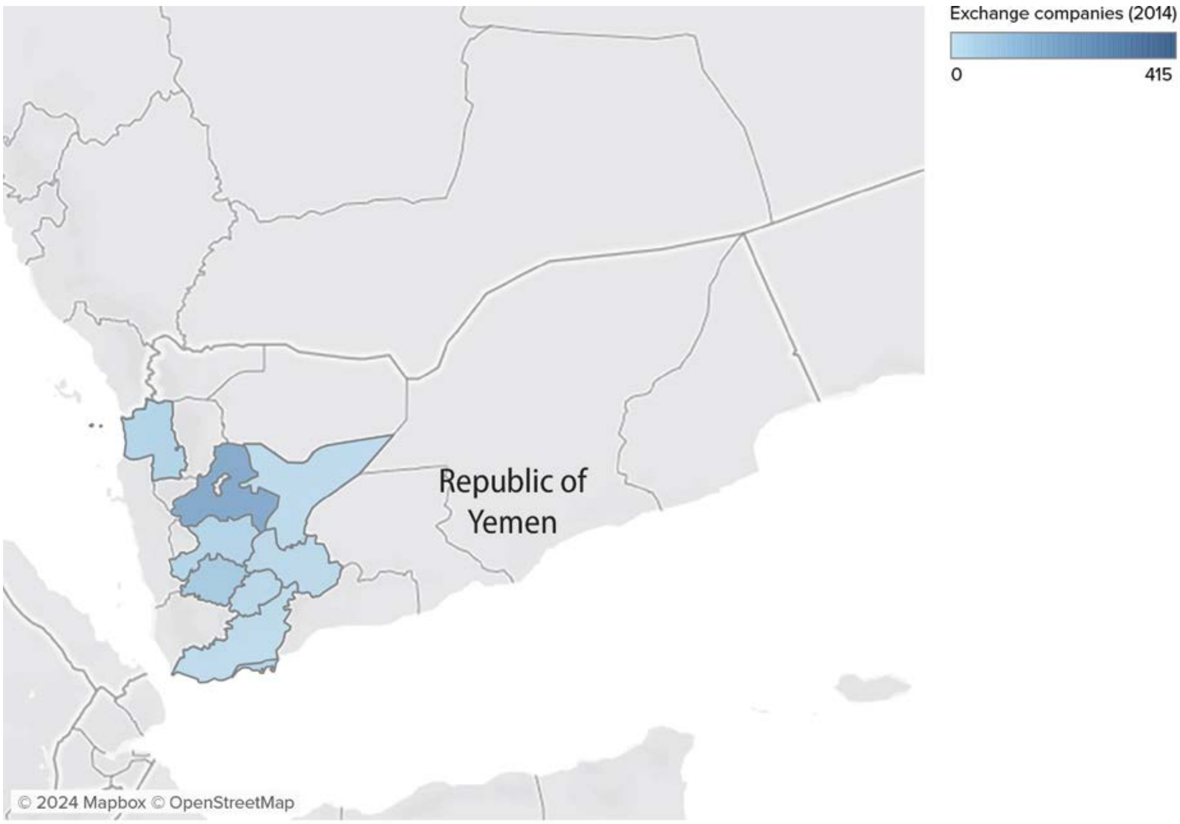
Figure 41 Geographical Distribution of Money Exchangers



Source: Author's calculation based on data from the Sana'a Center for Strategic Studies

After expanding their operations dramatically since the onset of the conflict, money exchangers are now the second most important financial intermediaries in Yemen. When the conflict began, bank customers fled to cash. The banking sector's liquidity dried up, while exchangers benefited from the cash economy by facilitating international and domestic remittances, exchanging currency, and reportingly offering clients' savings vehicles and access to international trade finance. As a result, the number of money exchangers increased dramatically (Figure 42 and Figure 43). According to official figures, as of 2023 there are 96 companies, 233 institutions, and 68 agencies registered with the CBY-Aden, and over 170 companies registered with the CBY-Sana'a. Since 2015, money exchangers have progressively expanded their reach and increased their ability to take deposits and provide credit.[38] They now offer many of the major financial services that Yemeni banks used to provide, including trade financing.

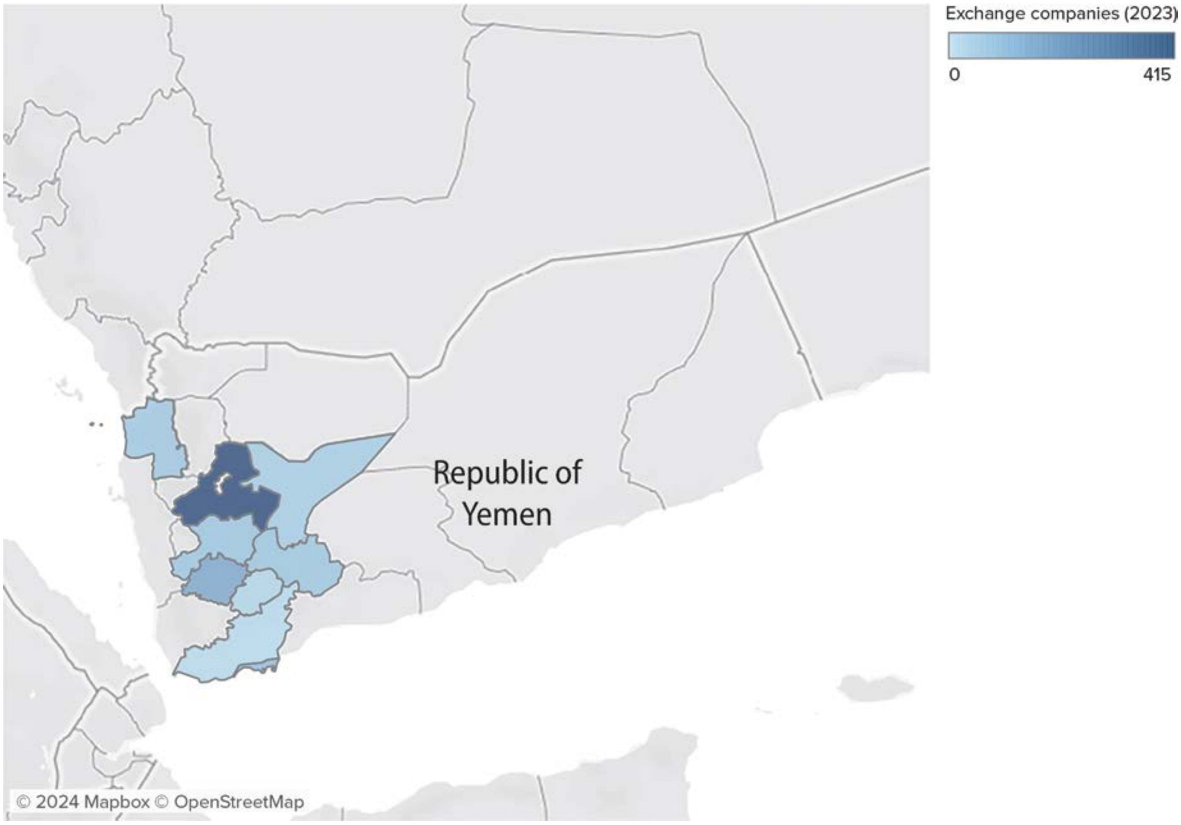
Figure 42 Number of Money Exchangers, 2014



Source: Author's calculation based on data from the Sana'a Center for Strategic Studies

38 A growing amount of anecdotal evidence supports this finding.

Figure 43 Number of Money Exchangers, 2023



Source: Author's calculation based on data from the Sana'a Center for Strategic Studies

Many money exchangers are unlicensed and operate through multi-company networks. The number of licensed exchange companies fell from 605 in 2014 to 550 in 2017, but an estimated 800 unlicensed exchange companies entered the market. These unlicensed companies often operate under the umbrella of larger licensed exchange companies, either informally or as agents, forming a tiered network that can reach even the most isolated parts of the country, with limited supervision/regulation or authority to address non-compliance with existing laws and regulatory obligations.

Money exchangers were part of Yemen's financial sector long before the conflict. Exchange companies are governed by Republican Decree Law No. 19 of 1995. According to Article (14), a bank may allow a money exchanger to (i) buy and sell foreign currency, (ii) accept transfers from abroad and buy and sell travelers' checks and bank checks issued by foreign and domestic banks, and (iii) conduct other business approved by the bank, though a money exchanger may not take deposits or offer bank accounts.

Money exchangers operate networks that extend within and across the IRG and DFA zones of control. Some companies operate exclusively within areas under the jurisdiction of the CBY-Sana'a, while others—especially newly licensed firms—work entirely in regions controlled by the CBY-Aden. Consequently, the CBY-Sana'a and the CBY-Aden oversee two different associations of exchange companies. A third group of money exchangers conducts business in both areas, and most exchange companies engage in interregional transactions facilitated by remittance networks such as the Al-Najm and Al-Imtiaz networks (Box 7).

Prior to the conflict, a single Yemeni Money Exchangers Association headquartered in Sana'a catered to all registered companies and institutions in the country. In 2019, as the bifurcation of Yemen's monetary policy deepened, companies that were based in the south and operated primarily or entirely under the jurisdiction of the CBY-Aden formed a new exchange association. By representing the interests of their members, the two associations have helped protect formal exchange companies and institutions from asymmetric competition from the informal market. The associations lobby their respective authorities and the international community to address the challenges faced by money exchangers, and they have worked to improve AML/CFT compliance in the subsector.

Money exchangers have adapted to overcome the constraints imposed by the conflict. In 2015, money exchangers started building their own local and regional financial networks to compensate for the disruption of bank transfers. However, the market became increasingly fragmented after the establishment of the CBY-Aden, and interoperability between money exchangers deteriorated. To address this issue, about 22 exchangers decided to launch a joint network as part of a project supported by the CBY-Aden. This initiative aimed to improve interoperability among exchange companies while enhancing oversight.

The authorities are aware of the growing economic footprint of money exchangers and have started updating their regulatory frameworks for the subsector. The CBY-Aden recently increased the minimum capital requirement for establishing a new exchange company and limited the opening of new branches within a given geographical area. In the first quarter of 2023, the CBY-Sana'a introduced its own set of regulations designed to ensure the stability and integrity of the exchange market by mitigating risks associated with the oversaturation of exchange companies and the proliferation of potentially harmful financial schemes. Moreover, in February 2024 CBY-Aden introduced critical regulations requiring all money exchange companies and transfer networks to conduct transfers through the "Unified Money Network". The Unified Money Network was established after a CBY-Aden resolution in November 2020 aiming to regulate the payment transactions of the growing number of money exchangers under one payment system. The payment system enables CBY-Aden to monitor remittances and payment transfers across the north and the south.

Some important money exchangers have transformed or are in the process of becoming banks, highlighting the continued evolution of the financial sector despite its extremely challenging context[39]. These money exchangers became banks by leveraging technology and reaching the scale

39 This statement is backed by a growing amount of anecdotical evidence. Among money exchangers who became banks is the Al-Kuraimi microfinance Islamic bank and Al-Qutaibi microfinance Islamic bank. Among the money exchange companies that are currently in the process of finalizing obtaining microfinance bank's licenses is Bin Dowal money exchange company.

necessary to diversify their services, expand their customer base, and compete with established banks. The conversion of money exchangers into microfinance banks is a positive development for Yemen's financial sector, which is becoming better equipped to channel funds into the real economy. Given that CBY regulations prohibit any non-banking financial institutions from accepting deposits from customers, CBY-Aden has prioritized enforcing its regulations on large money exchangers to apply to banking licenses or return collected deposits back to clients. The transformation of money exchangers into banks can also improve financial inclusion, as these institutions are often able to reach underserved or unbanked populations and can help stimulate competition and innovation.

Some exchange companies have been sanctioned by foreign governments for their involvement in illicit trading. In 2016, the United States added two Yemeni money exchangers, Al-Omgy and Brother Exchanger, to the Treasury Department's sanctions list for allegedly funneling money to the militant Islamist group Al-Qaeda in the Arabian Peninsula. In mid-2021, the US Treasury Department also imposed sanctions on the Swaid & Sons Exchange company for its dealings with Iran. These sanctions highlight the importance of ensuring transparency and monitoring AML/CFT compliance with international laws and regulations for financial institutions and market players.

Box 7 The Al Emtiaz Exchange Network

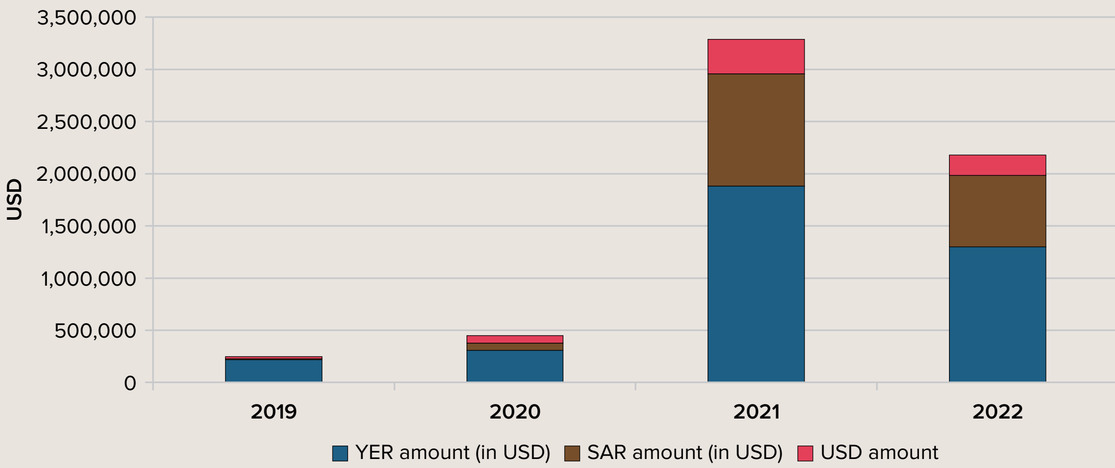
Early in 2023, a list of unclaimed remittances from one of Yemen's largest remittance networks, Emtiaz Express, was leaked to social media. Emtiaz Express is a money exchangers network owned by Al-Montab money exchange company, one of the 25 largest exchange companies in Yemen, with assets estimated at YER 13.7 billion.[40] The unclaimed remittances were denominated in Yemeni rials, Saudi rials, and US dollars, but Yemeni rials accounted for 60 percent of the total value, indicating that most of the transfers were domestic (Figure 44). The list identified 1,927 unclaimed transfers among individuals and firms. A subsequent social media campaign disclosed that other companies had comparable lists, and the story drew the attention of local and international media.

Emtiaz Express did not publicly comment, but it posted on its social media account an invitation for all owners of unclaimed remittances to visit their nearest branch and claim their funds. Other money exchangers followed suit, and the CBY-Sana'a also published a similar message emphasizing the need to share the transfer number with the recipient. Commentators noted that remittance senders do not always provide the correct details, such as the recipient's name and mobile number, which either prevents the funds from reaching the intended recipient or prevents the recipient from claiming the funds. At the urging of the CBY-Sana'a, Emtiaz Express and other major money transfer networks created online tools to help people locate their remittances through a name search. The CBY-Aden also instructed exchange companies to report unclaimed transfers after two months.

40 Source: Data from CBY - Aden

Box 7 The Al Emtiaz Exchange Network *(Continued)*

Figure 44 Value of Unclaimed Remittances



Source: Authors' calculation based on data gathered from social media

The incident exposed very large variations in transaction size, confirming that money exchangers are highly liquid companies. In addition to individuals, importers and other businesses also utilize these services instead of the banking sector. The amounts that can be transferred per transaction range from as low as US$10 to over US$40,000, and there are no limits on the total number of transactions that any client can execute. However, allowing transfers between accounts owned by the same person and failing to record the correct information for the transfer are indications that the subsector has yet to adopt international quality standards and appropriate AML/CTF safeguards.

The incident started a national discussion about exchange companies and the central bank's role in supervising them. While numerous unclaimed transfers could reflect a high rate of good-faith errors by system users, it could also indicate the misuse of the transfer system by the money exchangers. Moreover, the share of unclaimed remittances in total remittances sent through networks like Emtiaz Express is unknown, and the potential stability and integrity risks they pose to the financial system are impossible to estimate.

THE FINANCIAL FOOTPRINT OF MONEY EXCHANGERS

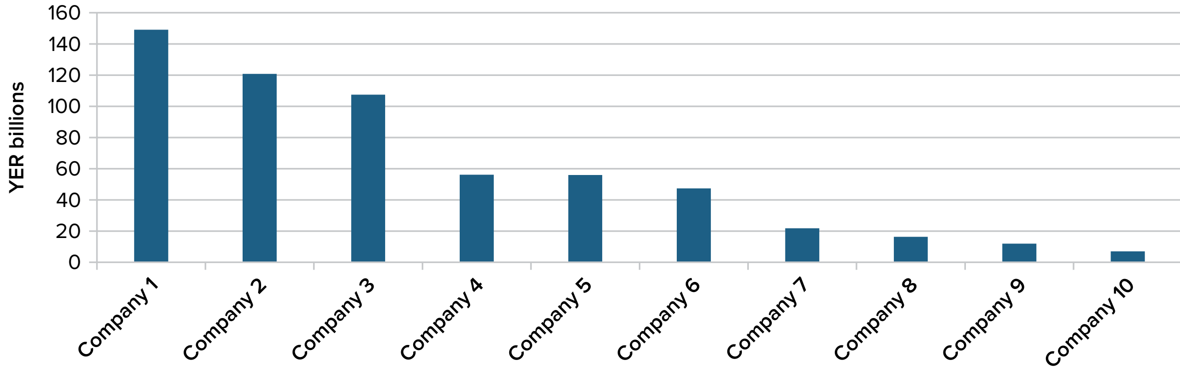
The diminished economic role of traditional banks has led to the emergence of a shadow banking sector made up of money exchangers, both formal and informal. Money exchangers help ensure a steady flow of FX liquidity, which is crucial to sustain imports and stabilize the economy. As the divide between the banking systems in IRG- and DFA-controlled areas has widened, exchange companies have increasingly functioned as vital intermediaries for transferring funds and remittances domestically, making them a lifeline for Yemenis who need to send and receive money between zones of control. To meet the rising demand for their services, money exchangers have significantly expanded their presence across Yemen. Unfortunately, the absence of effective rule of law-based supervisory/regulatory systems has contributed to increased vulnerabilities of this growing sector to the safety and stability of the financial sector.

Recent studies of money exchangers in Yemen have highlighted the lack of comprehensive and verifiable data, and this analysis adopts an innovative approach to overcome data constraints. In a significant departure from previous studies, this analysis examines the financial statements of 10 of Yemen's largest exchange companies, all based in the IRG controlled part of Yemen, which together represented about 40 percent of the total assets of all formal money exchangers operating in the country in 2023. This novel dataset was obtained directly from these entities by the CBY-Aden. The financial statements were used to study the size, revenue sources, and risk indicators of the money exchangers and compare their performance against those of the traditional banking sector. Additional information provided by the CBY-Aden on the prudential monitoring of the sector was used to assess the risk exposure of money exchangers and generate insight into how to monitor their operations more effectively.

The size of the money exchange companies is estimated based on the obtained financial statements and on an assessment of the sample companies' market share in international transfers.[41] The assessment of market share is based on a database of daily international transfers by 141 money exchangers. Comparing data on remittance transactions from 114 companies registered at the CBY-Aden with data from the financial statements of the ten companies indicates that the latter represents 30-50 percent of the assets for all money exchangers. Based on this estimate, the asset size and revenue size of these 10 companies (Figure 45 and Figure 46) can be used to extrapolate the market's total assets and revenue. This approach suggests that the assets of all money exchangers combined vary between YER 1.4 and 2 trillion in 2023.

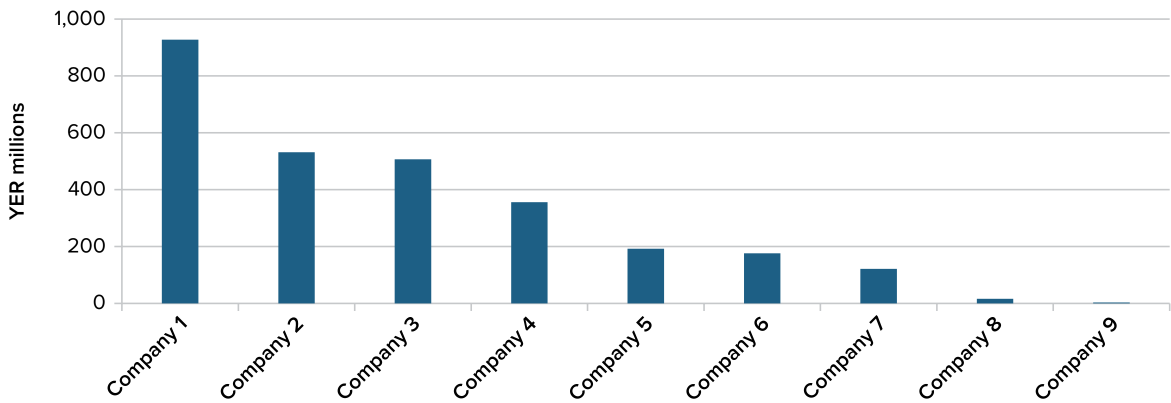
41 The identity of Money Exchanger Companies has been anonymized.

Figure 45 Assets of Money Exchangers



Source: Authors' calculation based on data from CBY-Aden.

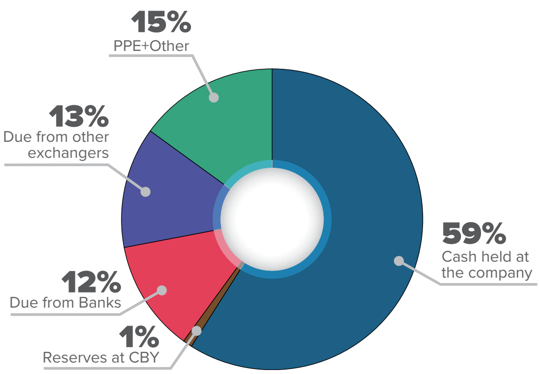
Figure 46 Revenues of Money Exchangers



Source: Authors' calculation based on data from CBY-Aden

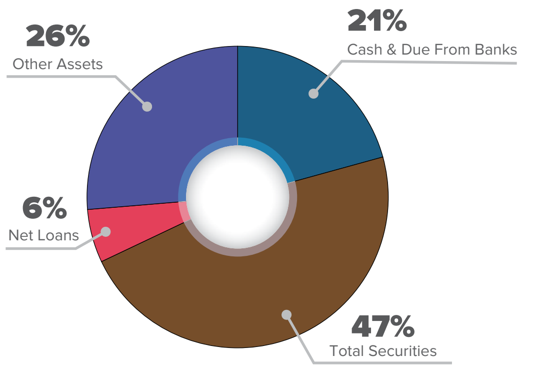
Money exchangers' main advantage over the banking sector is their easy access to liquidity. While the assets of the ten largest exchange companies represent only 6 percent of the assets of the banking sector, the value of the cash held by exchange companies equals 52 percent of the value of the cash held by the banking sector (Figure 47 and Figure 48)[40]. As many banks were forced to freeze some or all of their customers' deposits due to the liquidity crisis sparked by the conflict, money exchangers became a credible alternative for households to send and receive remittances and for firms to obtain the foreign exchange necessary for trade. Moreover, amid the ongoing liquidity shortage in DFA-controlled areas, money exchangers' access to large volumes of cash has become crucial to the survival of the local economy.

Figure 47 Asset Composition of Money Exchangers



Source: Authors' calculation based on data from CBY-Aden

Figure 48 Asset Composition of Banks

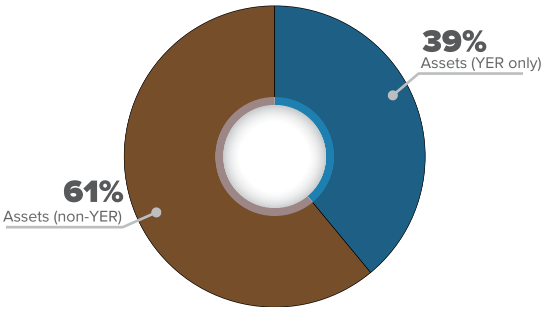


Source: Authors' calculation based on data from CBY-Aden

In addition to their ample liquidity, exchange companies more than compensate for the banking sector's negative net foreign assets position. Money exchangers have direct access to foreign currency, and among most individual companies' foreign assets exceed foreign liabilities (Figure 49 and Figure 50). Money exchangers' assets are overwhelmingly denominated in foreign currency, but the same is true for only half of their liabilities, resulting in a positive net foreign asset position of about YER 60 billion (Figure 51). While the combined assets of the top ten exchange companies represent only 6 percent of the banking sector's total assets, their positive net foreign assets position represents 17 percent of the net foreign assets of the banking sector (Figure 51 and Figure 52).[42]

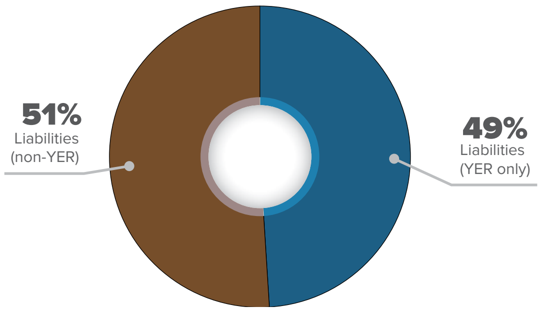
42 According to estimates by CBY-Aden, the value of the total assets of the banking sector is lower. If this estimate is used, the assets of money exchangers and their cash holdings would increase relative to those of the banking sector, rising to 12 percent and 64 percent, respectively.

Figure 49 Assets of Money Exchangers



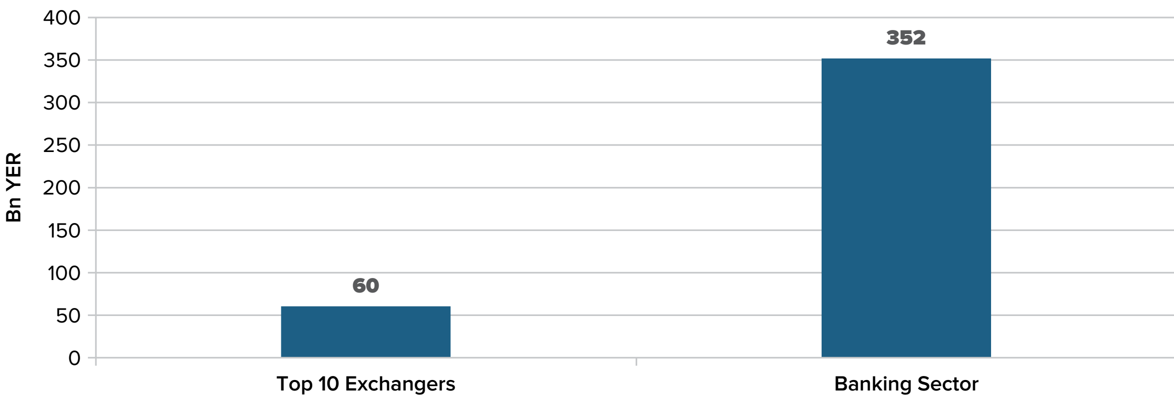
Source: Authors' calculation based on data from CBY-Aden

Figure 50 Liabilities of Money Exchangers



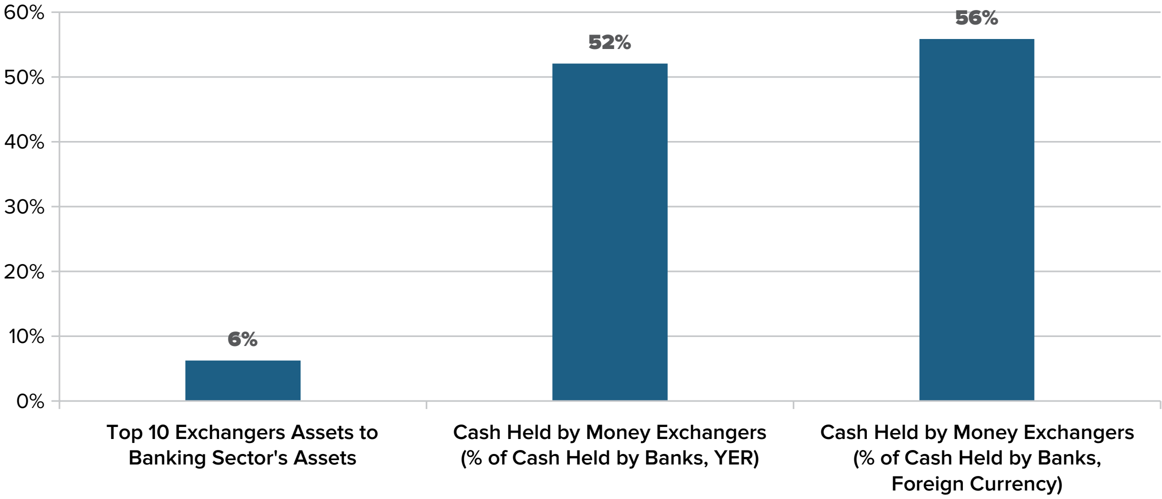
Source: Authors' calculation based on data from CBY-Aden

Figure 51 Net Foreign Assets of Money Exchangers and Banking Sector



Source: Authors' calculation based on data from CBY-Aden

Figure 52 Money Exchangers and the Banking Sector



Source: Authors' calculation based on data from CBY-Aden

Despite their access to foreign currency, money exchangers have not supplanted the banking sector's role in facilitating trade payments. International and domestic money exchangers more than offset the banking sector's net negative inflow of foreign-currency transfers (Figure 55, Box 8). This pattern indicates that money exchangers complement traditional banks and provide the banking sector with the necessary liquidity to meet the economy's demand for foreign currency (Box 8).

Box 8 Recent Trends in Cross-Border Payments

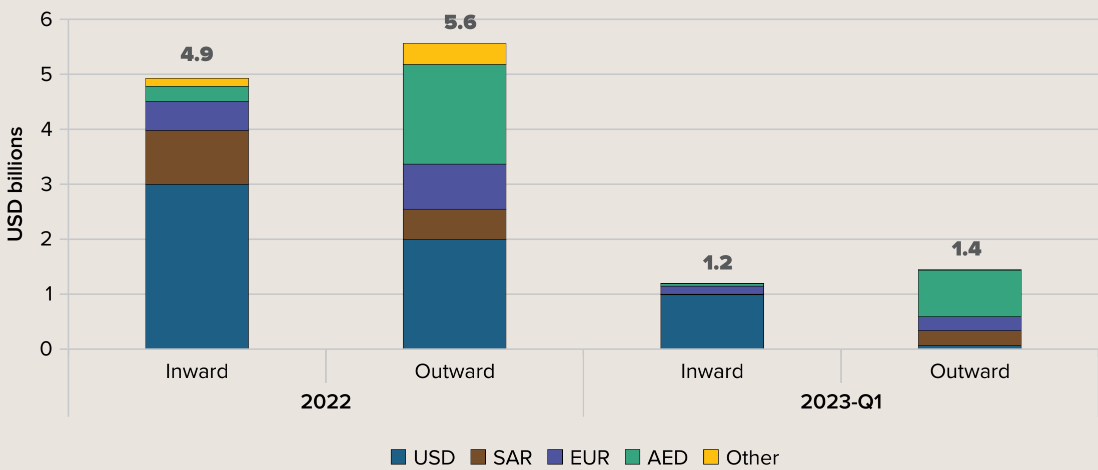
With the decline in oil exports, remittances and other international transfers have played an increasingly crucial role in financing Yemen's external deficit. Global transfer companies like Western Union and MoneyGram, along with local *hawala* networks, play a pivotal role in facilitating cross-border transactions. Even before the conflict, these companies and systems were an essential aspect of the financial system in Yemen's largely cash-based economy.[43] During the conflict, Yemen's banking system became increasingly isolated from the global financial framework, and these traditional and global transfer channels became increasingly important, especially given their established connections with Saudi banks and other regional banks.[44] The key advantages both of global transfer companies and local *hawala* agents are their relatively low fees and extensive networks. Nevertheless, it is vital that such *hawala* networks are brought under formal regulation/supervision to avoid such channels being used for criminal purposes, such as laundering funds.

43 ACAPS Analysis Hub, 2021
44 Ibid.

Box 8 Recent Trends in Cross-Border Payments *(Continued)*

In 2022, Yemen's banking sector processed US$4.9 billion in inbound transfers and US$5.6 billion in outbound transfers. As of Q1 2023, inbound payments through the banking sector had reached US$1.2 billion, while outbound payments stood at US$1.4 billion. Most inbound transfers were in US dollars, followed by Saudi rials, Euros, and United Arab Emirates dirhams. After the banking sector, the second largest channel for international transfers in Yemen is global transfer companies such as Western Union and MoneyGram. Inbound transfers through Western Union and MoneyGram totaled US$1.1 billion in 2022 and had reached US$400 million as of Q1 2023. Outbound transfers through global transfer companies are less common, totaling just US$200 million in 2022 and US$50 million in Q1 2023 (Figure 53 and Figure 54). While the banking sector recorded a net outbound flow of US$632 million in 2022, global transfer companies posted a net inbound flow of US$945 million.

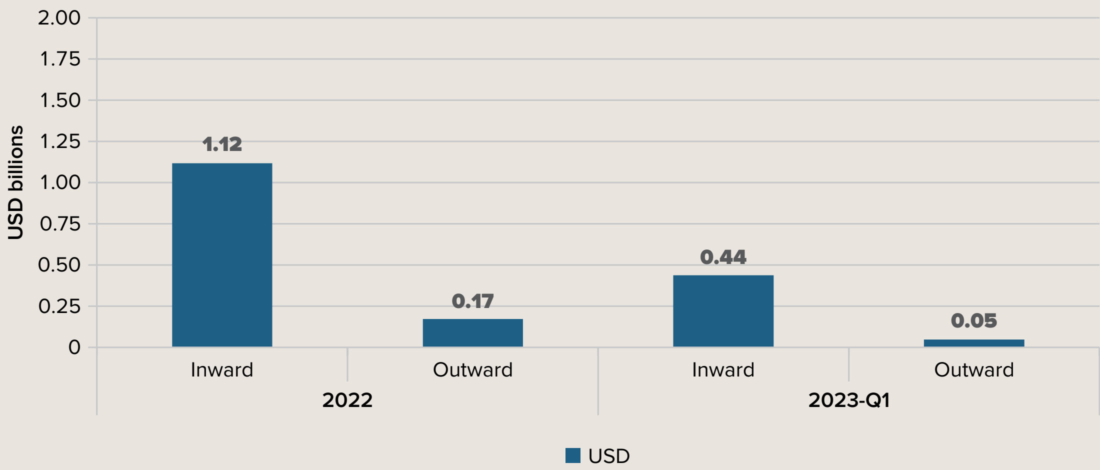
Figure 53 Transfers – Banking Sector



Source: Authors' calculation based on data from CBY-Aden

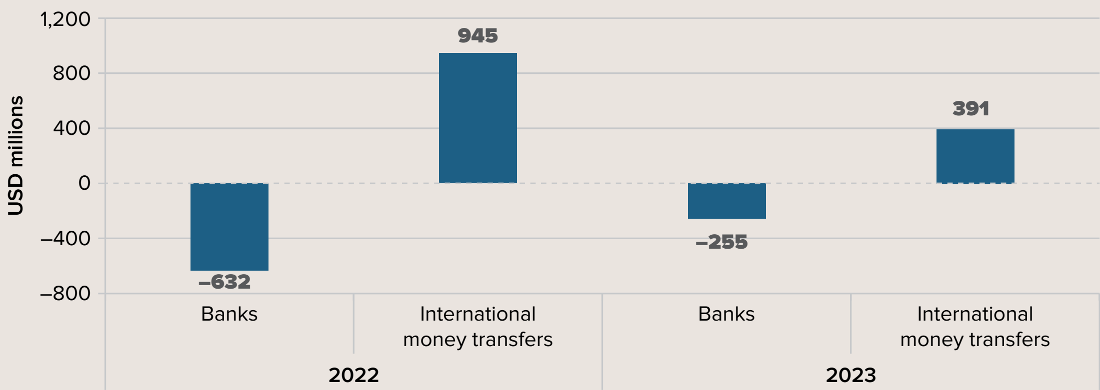
Box 8 Recent Trends in Cross-Border Payments *(Continued)*

Figure 54 Transfers – Global Transfer Companies



Source: Authors' calculation based on data from CBY-Aden

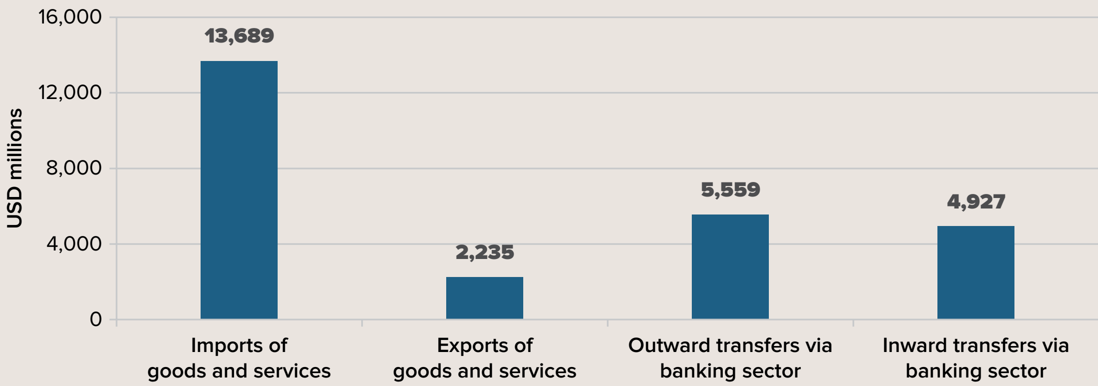
Figure 55 Net Transfers



Source: Authors' calculation based on data from CBY-Aden

Box 8 Recent Trends in Cross-Border Payments *(Continued)*

Figure 56 Trade Balance

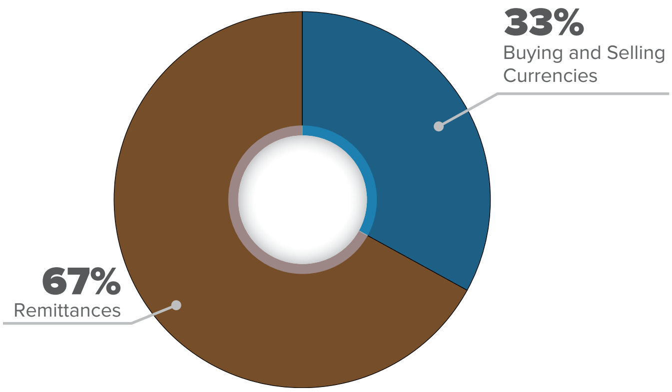


Source: Authors' calculation based on data from CBY-Aden and the IMF

The balances of payments for the banking sector and the global transfer companies reflect two separate underlying economic activities. While the banking sector's inbound and outbound transfer flows represent components of the national trade balance (i.e., payments for exports and imports, respectively), the flows of the global transfer companies consist primarily of inbound remittances. As a result, the net positive inbound transfers received through global transfer companies more than offset the net negative inbound transfers received by the banking sector, underscoring the fundamental role of remittances in sustaining consumption among Yemeni households while maintaining the stability of the country's trade balance (Figure 55 and Figure 56).

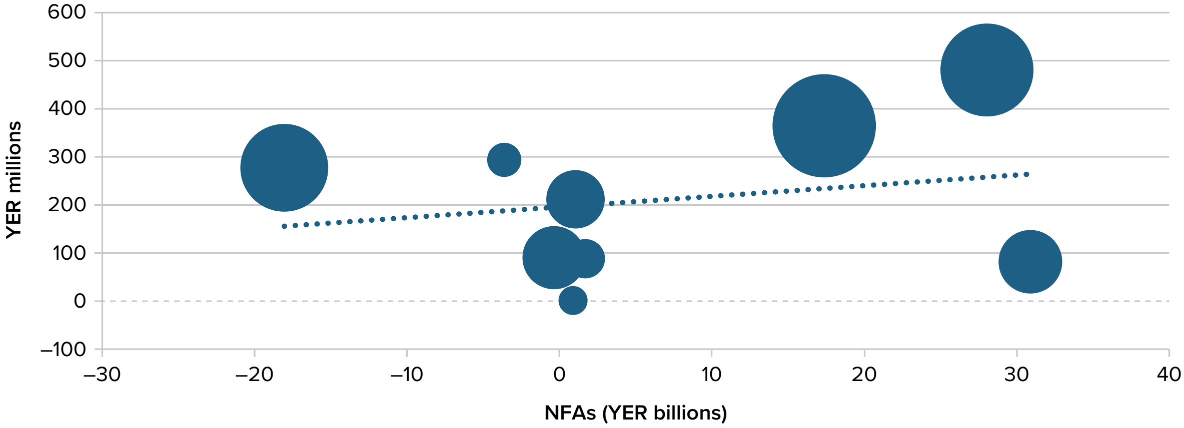
Consistent with the applicable laws and regulations, money exchangers' income statements show that their revenue derives from fees charged for processing remittances and commissions from buying and selling currencies. Processing remittances provides two-thirds of the subsector's total revenue (Figure 57). Across companies, obtaining more revenue from either source is correlated with having a greater net foreign assets position, regardless of the company's asset size (Figure 58 and Figure 59). Smaller money exchangers tend to have a larger share of net foreign assets or foreign currency liquidity in their total assets compared to larger money exchangers, which may indicate that the latter aggregate resources from the former. The composition of an exchange company's revenue affects its profitability. Revenues from currency trading vary considerably across exchange companies (Figure 60), and processing remittances appears to be less profitable than currency trading, as revenues from remittances as a share of total revenues is negatively correlated with money exchangers' Net Profit Margins (Figure 61).

Figure 57 Money Exchangers Revenue Composition



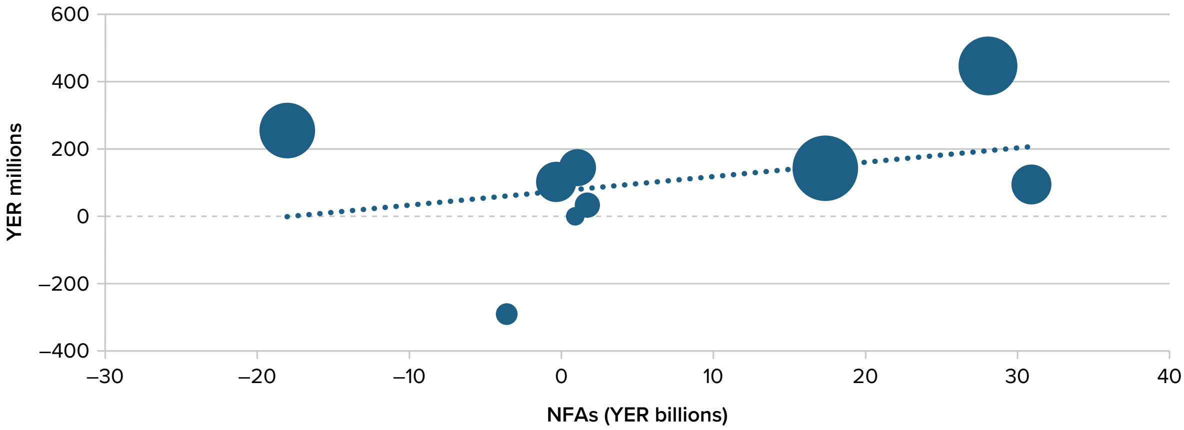
Source: Authors' calculation based on data from CBY-Aden

Figure 58 Revenues from Remittances



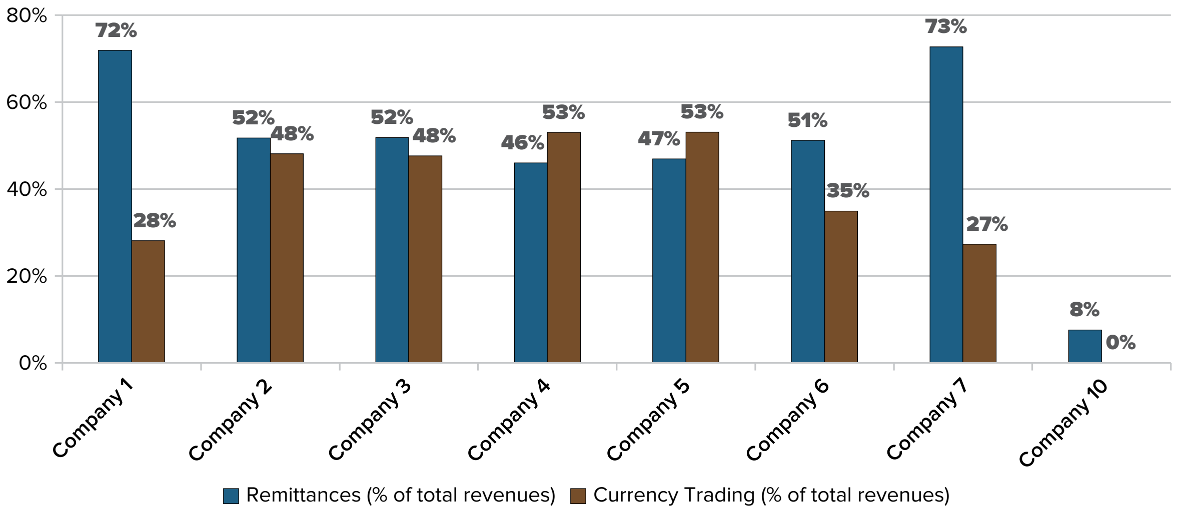
Source: Authors' calculation based on data from CBY-Aden. The size of the circle represents the total assets of the money exchanger, with larger circles indicating higher asset values.

Figure 59 Revenues from Currency Trading



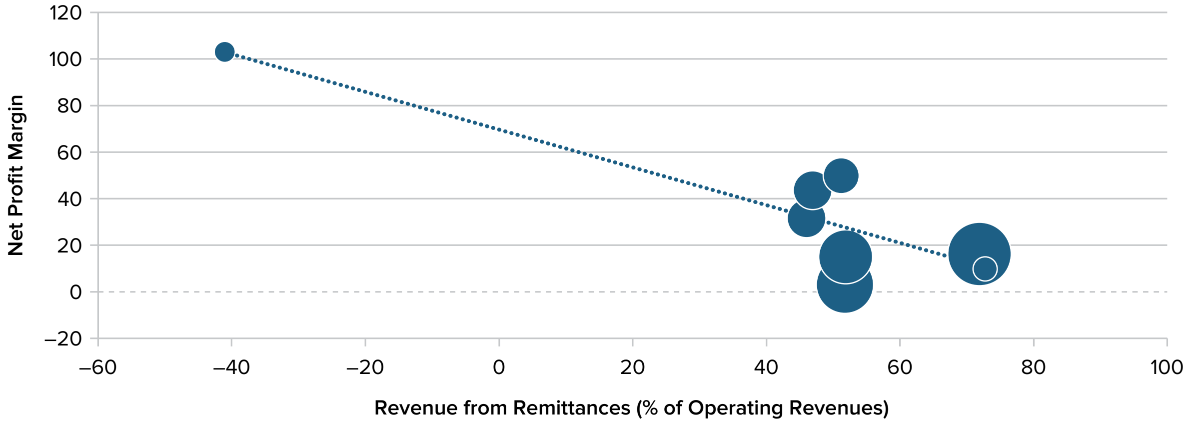
Source: Authors' calculation based on data from CBY-Aden. The size of the circle represents the total assets of the money exchanger, with larger circles indicating higher asset values.

Figure 60 Revenues Composition



Source: Authors' calculation based on data from CBY-Aden

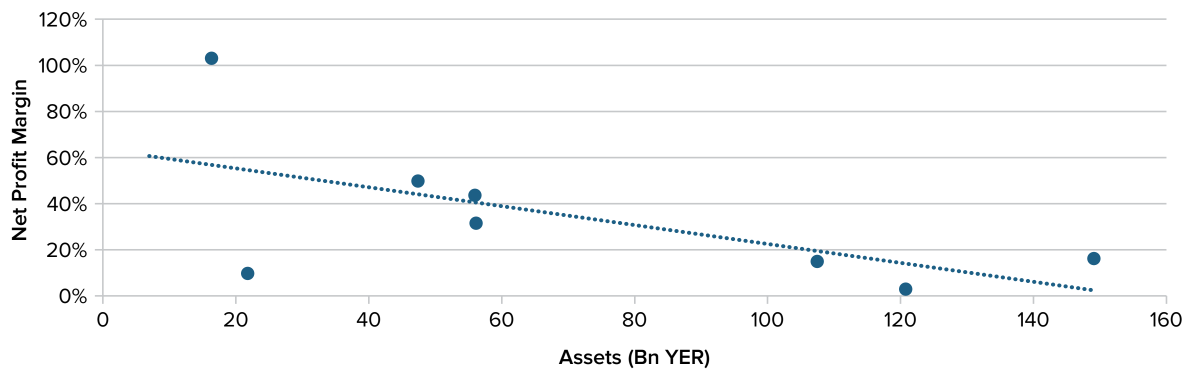
Figure 61 Revenues from Remittances & Profitability



Source: Authors' calculation based on data from CBY-Aden. The size of the circle represents the total assets of the money exchanger, with larger circles indicating higher asset values.

The average profitability of the largest 10 money exchangers exceeds that of the banking sector, even though money exchangers keep most of their assets in cash, which tends to yield a lower return than the more structured portfolio of a typical bank. Due to data limitations, the profitability of a sample of 10 money exchangers in 2023 was compared to that of a sample of seven banks in 2020, which held a combined 75 percent of the banking sector's assets. The analysis reveals that the elevated profitability of money exchangers may reflect the state of financial repression that prevails in Yemen, as artificially low interest rates have weakened the profitability of intermediation by the banking sector. However, the uneven profitability of different exchange companies, and the inverse correlation between net profit margins and asset size (Figure 62), indicate that money exchangers do not benefit from economies of scale, as the cost of operating a large company with multiple branches and complex security measures outweighs the increase in revenue.

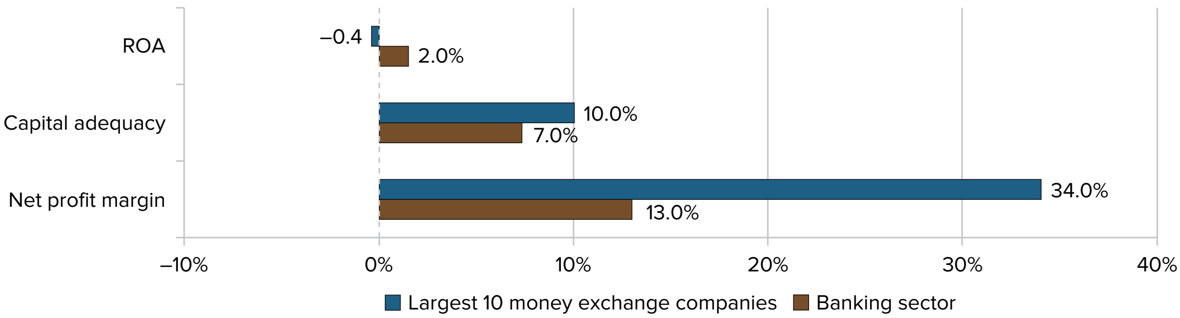
Figure 62 Net Profit Margin of Money Exchangers



Source: Authors' calculation based on data from CBY-Aden

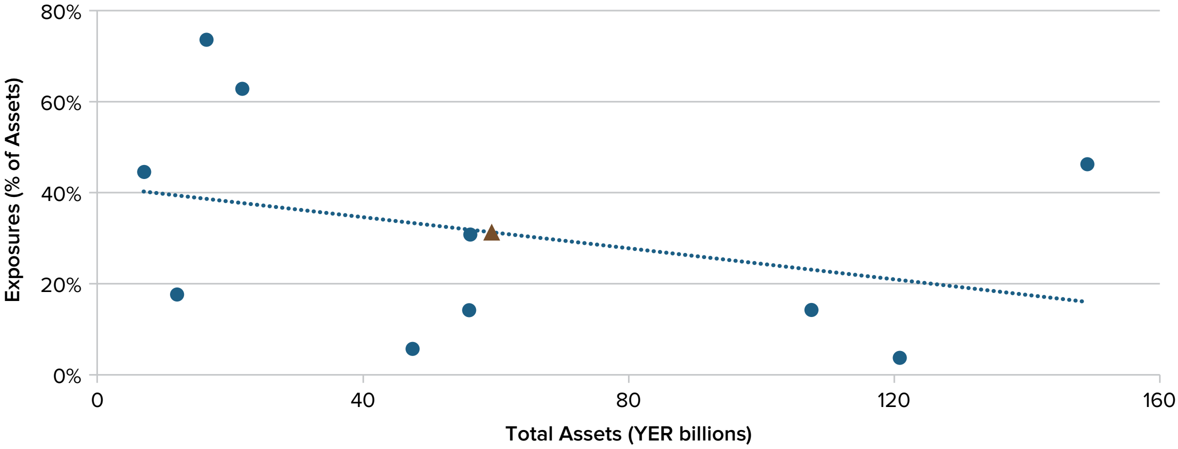
Exchange companies enjoy considerable liquidity and profitability advantages, yet the money-exchange subsector exhibits critical signs of vulnerability. Despite their profitability, money exchangers seem to be highly inefficient in terms of returns on assets, as their business model requires large amounts of cash to enable ongoing currency trading and facilitate remittances. Consequently, the return on assets is low across most companies, averaging -0.4 percent for the 10 largest money exchangers (Figure 63). Equity can be regarded as the accumulation of past profits, and the equity-to-assets ratio measures the proportion of a company's assets that are financed by its shareholders. Higher ratios indicate that a larger share of assets is financed internally, while lower ratios suggest that a larger share of assets is financed by debt. The low profit-to-assets ratios both of banks and money exchangers results in a relatively low capital adequacy ratio of 10 percent. While this is within the 5-15 percent range that is standard for most developing countries, given the heightened volatility of the economic situation and the security issues associated with the cash operations of money exchangers, regulators should adopt a more conservative stance and insist that exchange companies maintain a higher equity-to-assets ratio.

Figure 63 Profitability of Money Exchangers vs. Banks



Source: Authors' calculation based on data from CBY-Aden

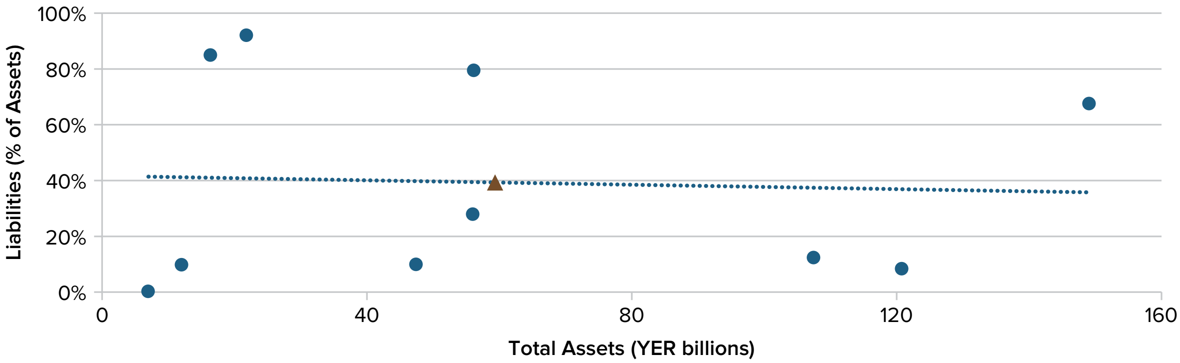
Figure 64 Top 10 Money Exchangers' Exposures to Banks and Money Exchangers



Source: Authors' calculations based on data from CBY-Aden. The triangle represents the average of the data points, indicating the mean values for both total assets and exposures.

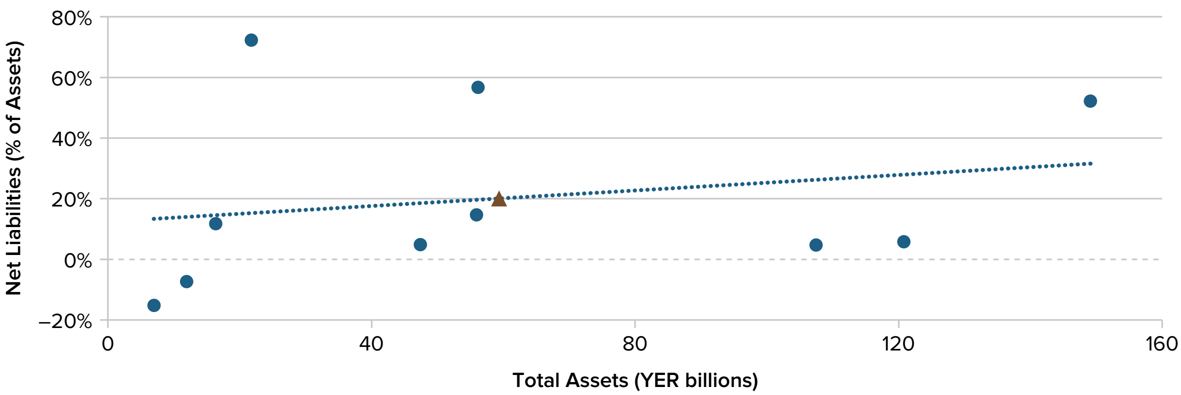
Money exchangers maintain extensive connections with banks and with each other. Exposure to banks and other money exchangers represents about 30 percent of the assets of the average money exchanger, and their aggregate exposure is similar (Figure 64). Money exchangers are somewhat more exposed to each other than they are to banks (Figure 65 and Figure 66). Larger money exchangers appear to be less exposed both to banks and to other money exchangers relative to their smaller peers in terms of assets but not liabilities, and larger companies also tend to rely more heavily on funding from banks. These findings provide further evidence that the money-exchange subsector is a tiered network organized around large exchange companies. Although these large companies tend to have lower profit margins and may not benefit from economies of scale, their asset size seems to create other market opportunities, such as the ability to pool resources from smaller exchangers and access the formal banking sector.

Figure 65 Top 10 Money Exchangers’ Liabilities to Money Exchangers



Source: Authors’ calculations based on data from CBY-Aden. The triangle represents the average of the data points, indicating the mean values for both total assets and liabilities.

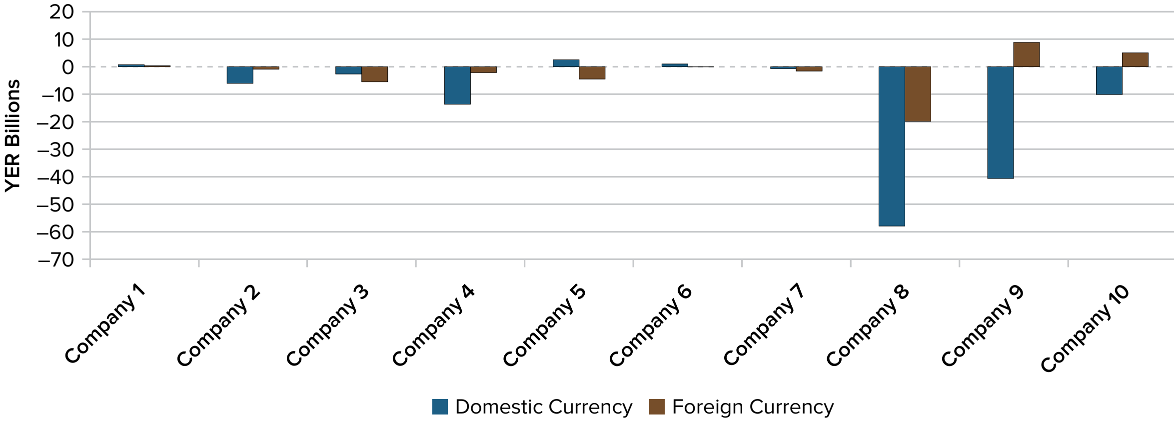
Figure 66 Top 10 Money Exchangers’ Net liabilities to Money Exchangers



Source: Authors’ calculation based on data from CBY-Aden. The triangle represents the average of the data points, indicating the mean values for both total assets and net liabilities.

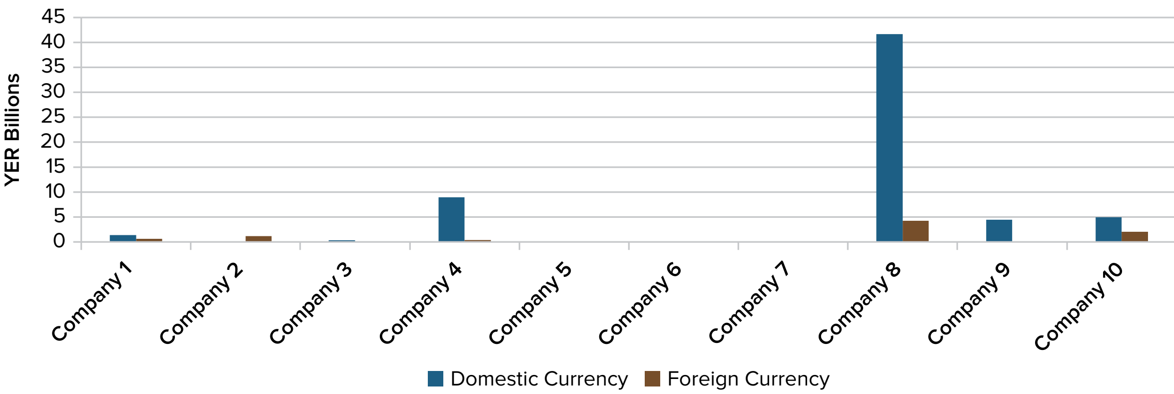
The fragile risk indicators described above, coupled with the evident interconnectedness among money exchangers and between some money exchangers and the banking sector, indicate the potential threat of contagion. While close links between money exchangers and banks can provide the banking sector with liquidity and facilitate access to foreign currency for trade purposes, a stability or integrity shock that affects money exchangers could threaten the stability of the banking sector (Figure 67). As the CBY-Aden and CBY-Sana'a increase their oversight of money exchangers, regulators should take steps to address the risks posed by contagion, especially given the observed fragility of the money-exchange subsector and low levels of capital adequacy among domestic banks (Figure 68).

Figure 67 Top 10 Money Exchangers' Exposures to Money Exchangers



Source: Authors' calculation based on data from CBY-Aden

Figure 68 Top 10 Money Exchangers' Exposures to Banks



Source: Authors' calculation based on data from CBY-Aden

The CBY-Aden employs a prudential risk-monitoring framework to detect potential stability risks in the money exchangers sector. The growing importance of money exchangers and a rising number of cases of fraudulent behavior have prompted the CBY-Aden to collect monthly data on the capitalization, leverage, profitability, liquidity indicators, exposure indicators, and liabilities risks of money exchangers (Table 3). A weighting system is then used to compute the overall operational and aggregate risk rating. Each risk category is assigned a weight (the sum of the weights is 100), and capital and liquidity have the highest weights (25 each). The weights are then distributed across individual indicators within categories (e.g., the sum of the weights for all capital indicators is 25). Using predetermined thresholds, the value of each indicator for a given money exchanger is classified as low risk (1), medium risk (2), or high risk (3). The risk assessment for each indicator is the product of the weight and the risk appraisal. The overall risk rating is obtained by standardizing the score, which is divided by 100 (the sum of the weights). Two overall scores are provided: (i) an operational risk rating that sums the risk scores for all indicators except those for liability risk and (ii) an overall risk rating that considers all risk indicators.

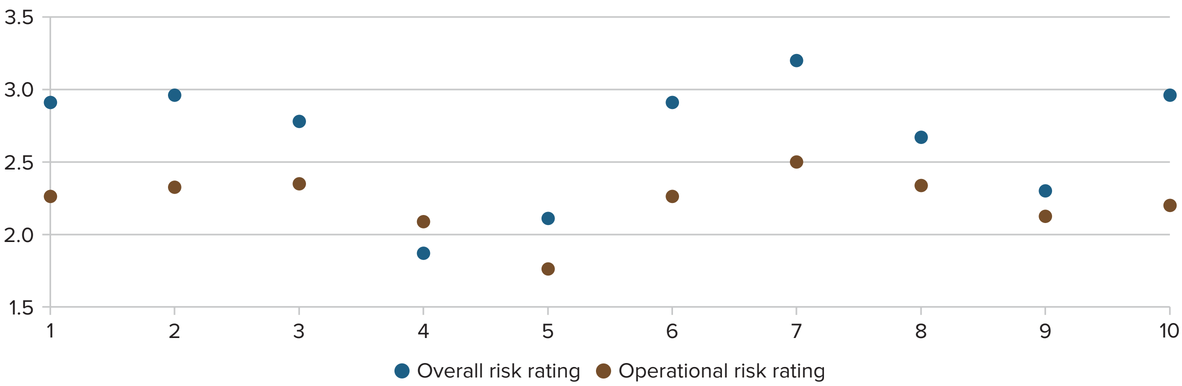
Table 3 The CBY-Aden's Risk-Monitoring Framework for Money Exchangers

Category	Indicator
Capital	Net Working Capital/ Owner's Equity
	(Net Working Capital-Other Liabilities)/ Owner's Equity
	Reserves/ Owner's Equity
	Total Assets/ Net Working Capital
	(Net Fixed Assets + Intangible Assets)/ Net Working Capital
Leverage	Leverage Ratio (Debt+ Other Liabilities / Owner's Equity)
	(Debt + Other Liabilities)/ Total Assets
Profitability	Return on Assets (ROA)
	Return on Equity (ROE)
	Operating Expense/Total Assets
	Retained (Undivided) Earnings/ Owner's Equity
Liquidity	Current Assets/ Current Liabilities
	Current Assets/ Total Assets
	Cash/ Total Assets
	Cash/ Net Working Capital
Exposure	Due from All Exchange Houses/ Net Working Capital
	Total Cash in foreign Currencies / Total Assets
Liabilities risk	Other Liabilities/ Total Liabilities
	Other in Other Liabilities/ Total Assets

Source: Adapted from CBY-Aden

The CBY-Aden's prudential risk-monitoring methodology reveals that money exchangers are financially fragile. Data from a sample of ten money exchangers operating in IRG-controlled areas at the end of May 2023 indicate that their overall risk is very high. Seven out of the 10 money exchangers had an overall risk rating above 2.5, indicating severe risk exposure (Figure 69). Two more had values above 2, indicating medium risk, and only one had a relatively low level of risk exposure. Operational risk ratings were less extreme, as nine money exchangers had an operational risk rating between 2 and 2.5 (medium risk), while one had an operational risk rating between 1.5 and 2.

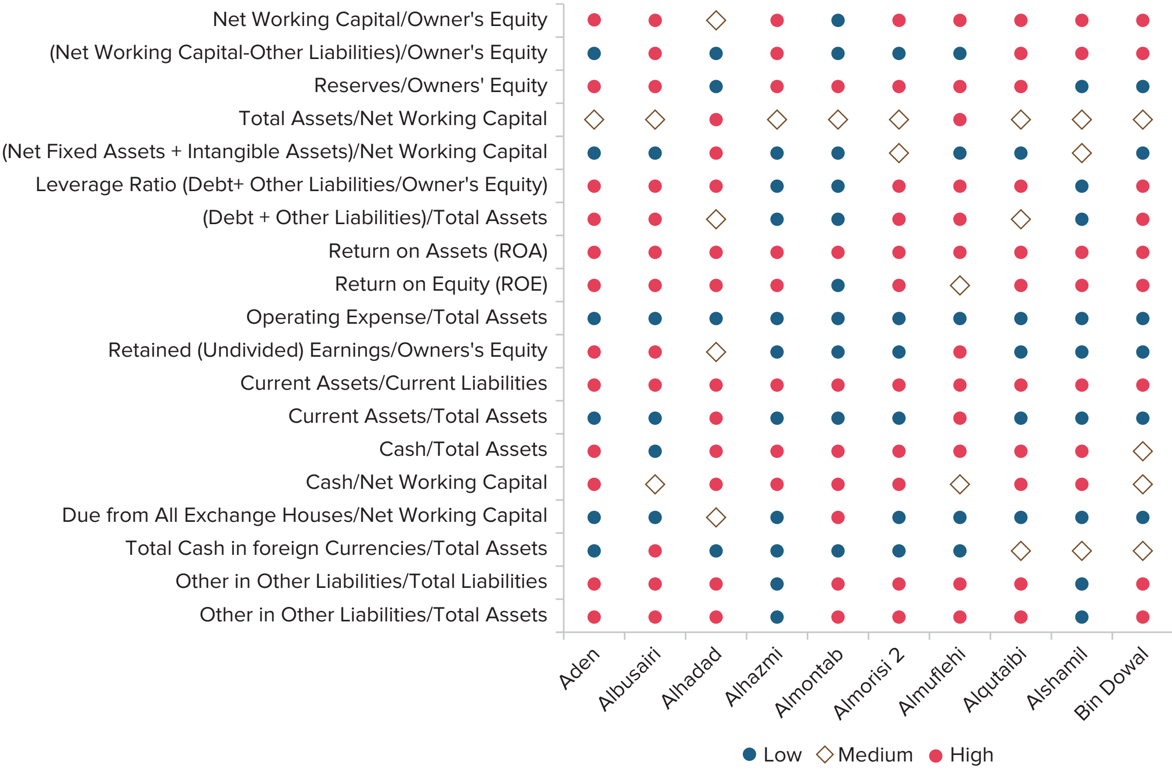
Figure 69 Risk Assessment of Money Exchangers, May 2023



Source: Adjusted based on data from CBY-Aden
Note: The overall risk rating and the operational risk rating are computed by CBY-Aden

Liability risks and liquidity mismatches were the most important sources of structural vulnerability among money exchangers. Combining both indicators of liability risk gives an average score of 2.6, the highest for all risk categories, followed by liquidity indicators with an aggregate score of 2.5. The promise of on-demand convertibility of less liquid investments into cash creates structural imbalances in the current assets-to-liabilities ratio, and this indicator showed a high-risk level for all 10 exchangers (Figure 70). Meanwhile, the cash-to-total-assets ratio was assessed as too low for eight of the 10 money exchangers, and profitability was weak relative to capitalization. All 10 exchangers had an insufficient return on assets, and eight had an inadequate return on equity. Exposure risk was the only consistently low-risk category, with an aggregate indicator score of 1.4.

Figure 70 Risk Matrix for Money Exchangers, May 2023



Source: Adjusted based on data from CBY-Aden
Note: Risks are assessed as low, medium, or high by CBY-Aden based on pre-established thresholds.

The stability threats highlighted by the risk-monitoring framework should inform preventive actions to mitigate risk among money exchangers and should be expanded to include a consideration of money laundering and terrorist financing risks. The assessment partly reflects the specific business model of money exchangers, with its emphasis on currency trading and money transfers. Some of the risk categories, such as capitalization and liability risk, have high weights, yet the greatest structural vulnerabilities are liquidity and leverage mismatches.[45] Exchange-rate risk is not assessed, but a net open position in foreign exchange relative to capital is a common indicator of financial soundness.[46] Moreover, it is unclear whether the monitoring framework is used to enforce supervisory actions designed to limit risk exposure in the money-exchange subsector.

45 The assignment of a high-risk multiplier to indicators of liability risk, in particular, appears arbitrary and may not be suitable for assessing risks among money exchangers. See, e.g., the discussion in the BIS 2021 quarterly report regarding how to regulate nonbank financial institutions. https://www.bis.org/publ/qtrpdf/r_qt2112_foreword.htm

46 IMF, 2019. Financial Soundness Indicators Compilation Guide.

POLICY RECOMMENDATIONS FOR THE MONEY EXCHANGERS

In the short term, it is imperative for the Central Bank of Yemen-Aden to recognize and preserve the pivotal role of money exchangers in ensuring liquidity within the economy. These entities have become increasingly prominent in the financial landscape, particularly in the transfer of remittances. Money exchangers, serving as a resilient channel for the Yemeni financial sector, function as indispensable economic actors bridging the formal and informal economies. Recent history underscores that several successful Yemeni banks had their origins as money exchangers. This pattern highlights a potentially advantageous trajectory within the business model of money exchangers, paving the way for some to potentially evolve into fully-fledged banks in the future.

Presently, Yemen lacks a comprehensive macroprudential and AML/CFT regulatory framework that encompasses the role of money exchangers alongside the formal banking system. It is essential to eliminate this gap by developing a robust regulatory framework that acknowledges and addresses the unique dynamics of money exchangers. Particular attention should be paid to the risks associated with the widespread presence of unlicensed and unregulated money exchangers. The regulatory body should establish a set of incentives and a clear pathway for these unlicensed entities to obtain formal licenses, and take action to enforce such requirements, including shutting down those persons/entities operating without the appropriate license.

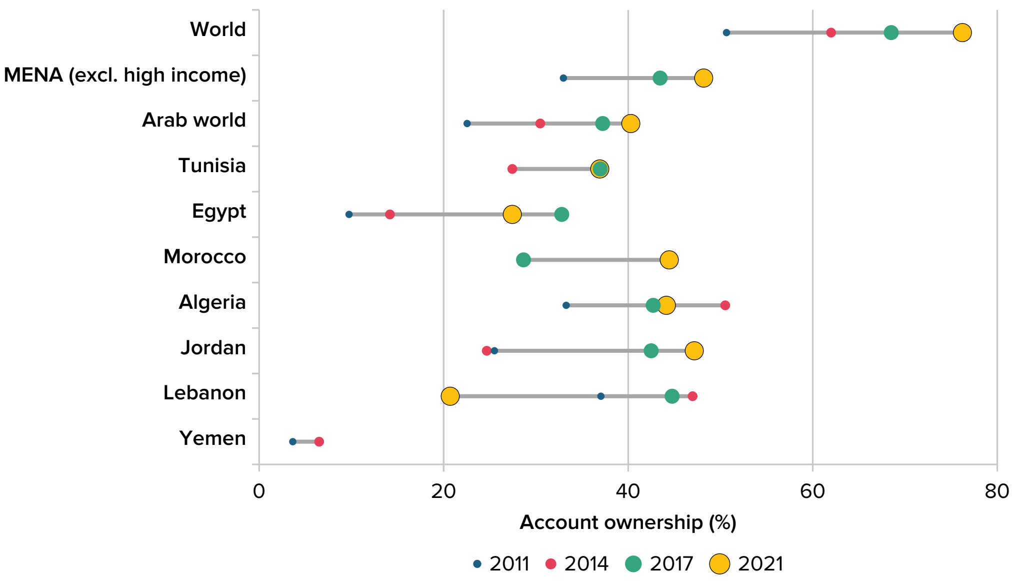
To harness Yemen's full potential, the Central Bank of Yemen-Aden should also adopt and implement appropriate AML/CFT regulatory frameworks in line with international integrity standards. Firstly, this should include authorities taking action to deepen their understanding of the financial integrity and ML/TF risks within the money exchanger sector, to ensure that supervisory activities are targeted at the highest risk entities. This understanding should extend to examining the intricate connections not only between money exchangers and banks but also among different money exchangers. Secondly, the Central Bank should conduct outreach to the private sector to ensure that institutions have the capacity to conduct customer due diligence controls and to identify ultimate beneficial owners. Finally, the Bank should ensure that it has effective and legally binding powers and resources to be able act and sanction institutions in cases of non-compliance.

Chapter 4. Access to Finance

FINANCIAL INCLUSION AMONG HOUSEHOLDS

Yemen has long struggled to expand financial inclusion. Before the conflict, Yemen already lagged regional and peer-group averages on key indicators of household financial inclusion such as account ownership and savings rates. Yemen's account-ownership rate rose from 3.7 percent in 2011 to 6.4 percent in 2014, yet it remained far below the average of 30 percent for the Arab world (Figure 71).[47] A 2022 study[48] found that about 8.8 percent of the population owned an account of any type, including an e-wallet or other digital account. World Bank data[49] indicate that about 21 percent of Yemenis had positive savings in 2014, of which less than 1 percent were deposited in financial institutions. By contrast, the average share of savers in Arab countries was 38 percent, and 8.8 percent of savings were deposited in financial institutions. Yemen's household financial inclusion indicators likely worsened during the conflict, though data constraints prevent a thorough analysis.

Figure 71 Household Account Ownership in the Middle East and North Africa



Source: World Bank Global Findex Database (2021)

47 World Bank Global Findex Database (2021)
48 Small and Micro Enterprise Promotion Service, *Digital Payments Study in Yemen* (2023)
49 World Bank Global Findex Database (2021)

The international literature suggests that while access to financial services can strengthen resilience among households, as a matter of development policymakers should focus on expanding financial inclusion among firms. In a fragile context, access to savings accounts, remittances, aid channels (Box 9), and other financial products beyond credit can improve households' ability to withstand economic shocks and manage uncertainty. Remittances remain especially vital to household consumption in Yemen and are projected to reach US$4.6 billion in 2022, equal to 35 percent of the country's import needs.[50] Household financial inclusion can also foster the growth of microenterprises. Nevertheless, the direct provision of financial services to the population may not be the most efficient means through which finance can reduce poverty and income inequality.[51] Instead, policymakers should prioritize measures to foster access to finance among firms, while household financial inclusion will likely improve as a byproduct of broader financial development and economic growth.

Box 9 Unconditional Cash Transfer Program in Yemen Supporting Households' Livelihoods

A World Bank-financed unconditional cash transfer (UCT) program has been providing life-saving payments to the poorest one-third of the population in Yemen since 2017. Initially implemented by the government of Yemen through the Social Welfare Fund, the program was discontinued after the outbreak of the civil war in late 2014. Currently, UNICEF, in partnership with the Social Fund for Development (SFD), is delivering the UCT program, with 17 payment cycles completed by the end of 2023, reaching 1.42 million households across the country. Key achievements of the program, as highlighted by the Third-Party Monitoring (TPM) in Payment Cycle 17 (December 2024), include a high percentage of respondents (99%) reporting receiving the correct amount of cash payments and 98% expressing satisfaction with the UCT. The program continues to be delivered across all districts in Yemen. To address the loss of the real value of the UCT benefit and respond to the COVID-19 crisis, benefit top-ups have been implemented. These top-ups have been financed through savings from the Emergency Crisis Response Project (ECRP, the initial project) and direct contributions from sources like the UK's Foreign, Commonwealth and Development Office. UNICEF has introduced several improvements to the program. These include payments through private financial institutions, the establishment of a comprehensive and secure Management Information System (MIS) for real-time monitoring of payments and grievances, and the implementation of a robust Grievance Redress Mechanism (GRM) to address beneficiary concerns. The new iteration of the project, The Emergency Social Protection Enhancement and COVID-19 Response Project (ESPECRP) has a third additional financing forthcoming.

50 IMF, "Yemen 2022 Economic Developments" (2022)
51 World Bank, *Finance for all?* (2007)

Box 9 Unconditional Cash Transfer Program in Yemen Supporting Households' Livelihoods *(Continued)*

However, the program also faces several challenges. The depreciation of the Yemeni rial, particularly in the south of the country, has led to a decline in the adequacy of the cash transfer, from 25% of the minimum consumption basket to about 10%. To mitigate this, the benefit level was fixed in dollars and then converted to rials at market rates before each payment cycle. Updating the beneficiary list is another challenge, as it has not been revised since before the war. This may result in some vulnerable families being excluded from accessing the UCT. Accessibility is another concern, with some respondents having to travel long distances or endure lengthy wait times at payment sites, particularly in southern governorates like Aden and Lahij. To address this, the program has initiated a pilot project for digital payment options in eight districts, with plans for further expansion in 2024 and beyond to enhance accessibility and promote financial inclusion. The World Bank & UNICEF are exploring options to provide behavioral change communication to boost financial literacy in areas where digital payments are introduced.

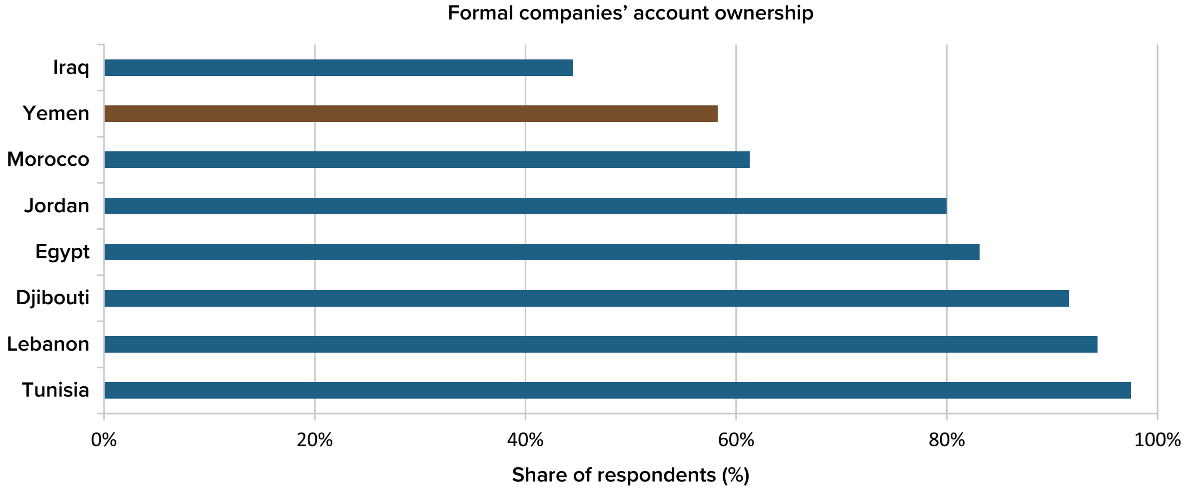
The UCT program in Yemen presents a significant development investment opportunity for development partners, donors, and aid agencies. Efforts to address the challenges and improve the program's effectiveness will contribute to reducing food insecurity and malnutrition among the most vulnerable populations in Yemen.

FINANCIAL INCLUSION AMONG FIRMS

In line with households' levels of financial inclusion, Yemeni firms have very low rates of account ownership and limited access to credit. In 2022, about 58 percent[52] of formal firms and just 18 percent of informal firms had a bank account, well below the levels of peer countries (Figure 72). Rates of account ownership among firms are uneven across Yemen and have broadly declined since 2014 (Figure 73). Banks and financial institutions are concentrated in city centers, while an estimated 61 percent[53] of the population lives in rural areas, and the resulting logistical challenges hinder financial access. However, there is no clear correlation between population density and financial access among firms at the governorate level. Bank credit to the private sector fell from 7.9 percent of GDP in 2008 to 2.4 percent in 2021, far below the regional average of 32 percent of GDP (Figure 74). Bank intermediation in Yemen was very limited before the conflict and has deteriorated since. Among the countries for which the data is available[54], only Sierra Leone and South Sudan fare lower than Yemen in 2021.

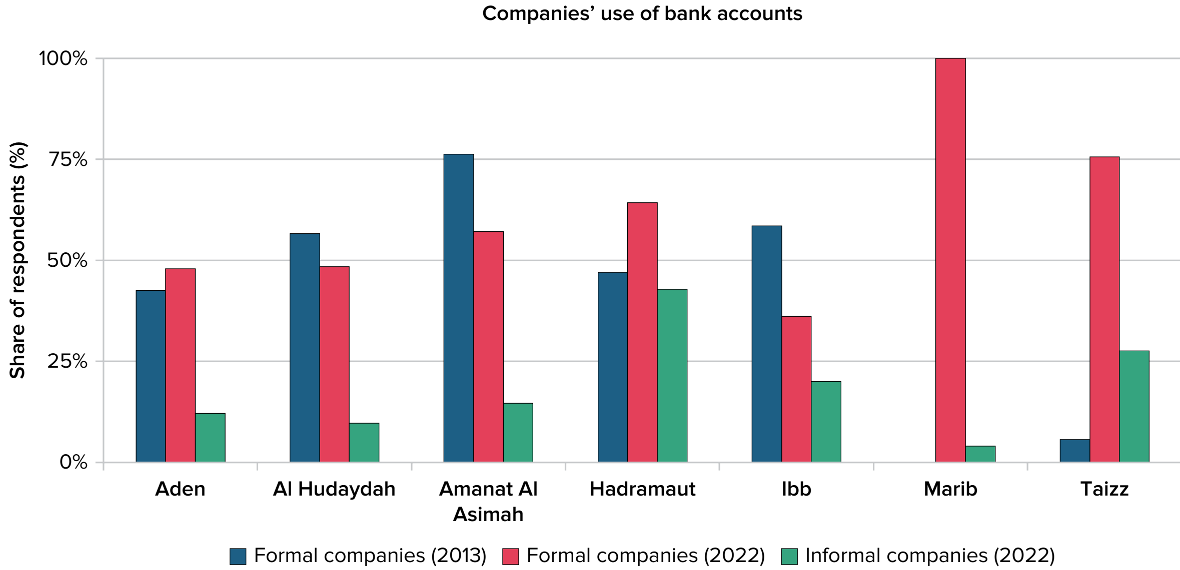
52 World Bank Enterprise Survey
53 https://www.macrotrends.net/countries/YEM/yemen/rural-population
54 World Development Indicators

Figure 72 Account Ownership among Formal Firms, Yemen, and Comparators



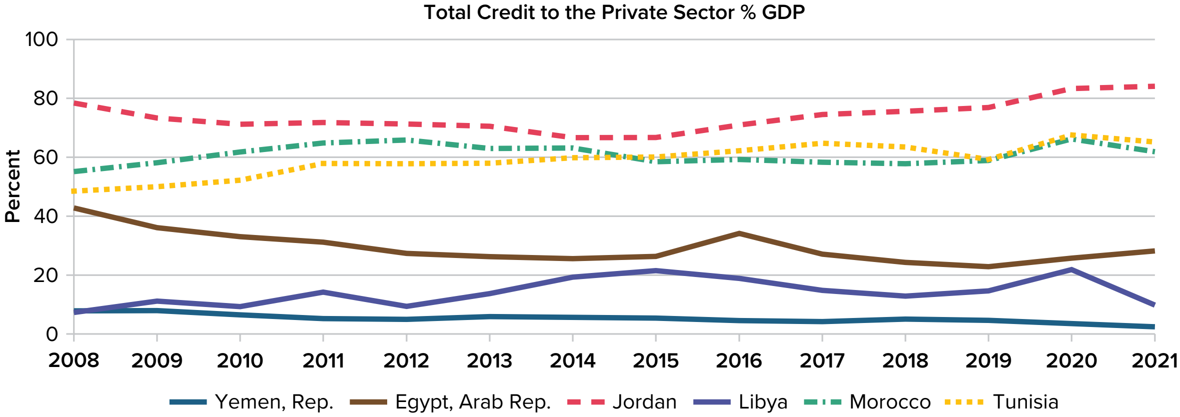
Source: World Bank Enterprise Surveys and 2022 Yemen Enterprise Survey

Figure 73 Use of Bank Accounts by Firms across Sectors and Areas, Yemen



Source: 2022 Yemen Enterprise Survey

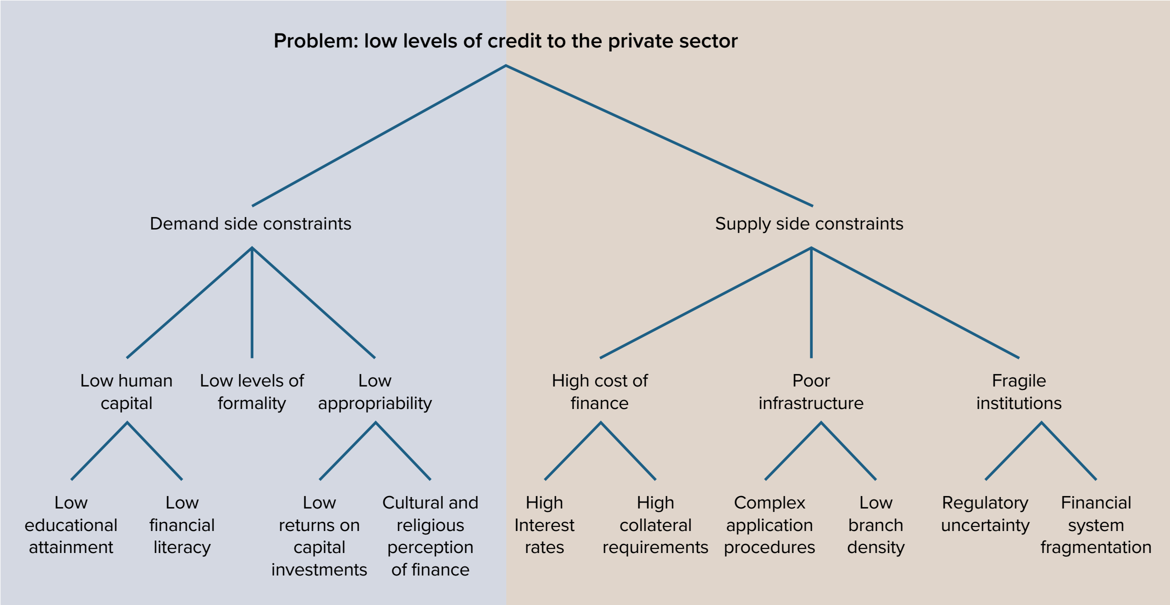
Figure 74 Total Bank Credit to the Private Sector, Yemen, and Comparators



Source: Authors' calculation based on data from the IMF and CBY-Aden

Expanding access to credit among firms will be vital to strengthen macroeconomic stability and lay the groundwork for a robust recovery. Stronger financial systems can promote firm growth, increase value addition, mitigate risks, and facilitate the entry of new firms. The following section analyzes constraints on financial inclusion among firms in Yemen, especially access to credit. It begins by evaluating constraints on the demand side, including informality, inadequate human capital, and low appropriability, then explores supply-side constraints such as high financing costs, weak financial infrastructure, inadequate financial products, and regulatory constraints (Figure 75).

Figure 75 The Structure of Constraints on Credit Access Among Firms



ESTIMATING YEMEN'S FINANCE GAP

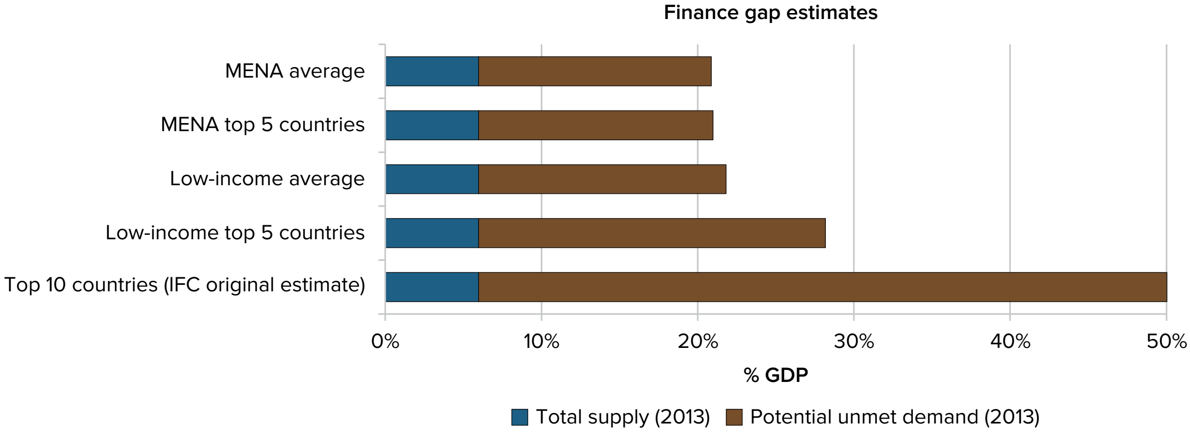
Estimating the total demand for credit among firms and comparing it to the actual supply of credit can indicate the extent to which lack of financing constrains the development of the private sector. Using a cross-country regression, the IFC estimated the total supply of credit to small and medium enterprises (SMEs) in Yemen at 1.7 percent of GDP in 2013.[55] Combining this estimate with data from the CBY-Aden on commercial-bank credit to the private sector and on the outstanding loans of the 10 largest microfinance institutions suggests that the supply of credit to firms totaled no more than 6.0 percent of GDP in 2013 and fell to 2.7 percent in 2021. By contrast, estimates of the demand for credit in 2013 range from 20 to 53 percent of GDP (Table 4 and Figure 76). Demand for credit among Yemeni firms is estimated based on information from the 2013 World Bank Enterprise Survey in Yemen and the World Bank's Doing Business Indicators.[56] Following the IFC's original methodology, an "ideal" debt-to-sales ratio[57] is estimated, along with an estimated "ideal" debt level for Yemeni firms.[58] This approach indicates that the gap between credit supply and demand in Yemen's private sector is 1.7-3.7 times larger than the average for peer countries (Figure 77).

55 International Finance Corporation, *MSME Finance Gap: Assessment of The Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets* (2018) https://smefinanceforum.org/
56 Sales are not reported in the 2022 Yemen Enterprise Survey.
57 These are: Australia, Canada, Denmark, Germany, Ireland, Israel, New Zealand, Switzerland, the United Kingdom, and the United States.
58 See Appendix II for further details.

Table 4 Potential Demand for Credit among Firms, Yemen, and Comparators

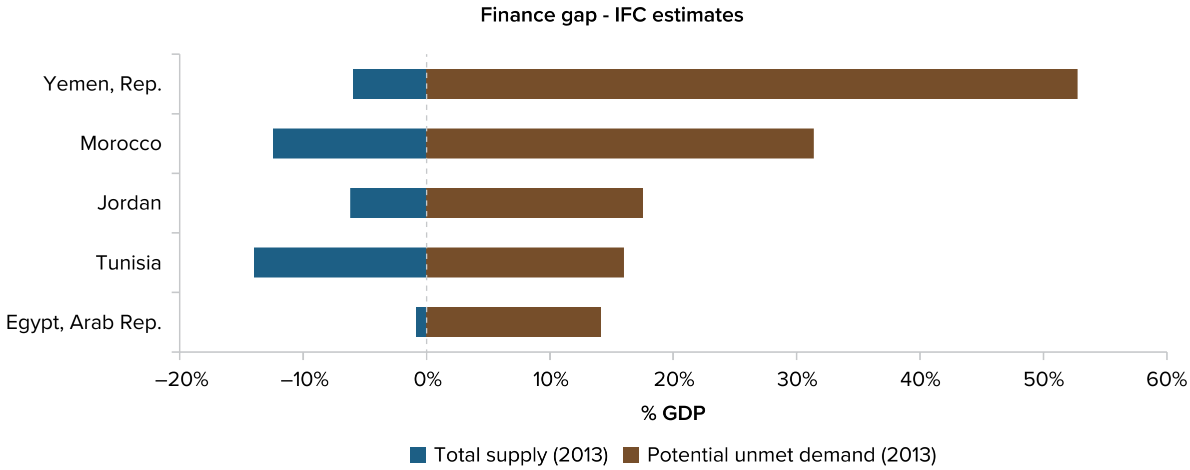
Benchmark group	Potential demand for credit estimates (% GDP)
Top 10 countries (IFC original estimate)	53%
Low-income top 5 countries	28%
Low-income average	22%
MENA top 5 countries	21%
MENA average	20%

Figure 76 Estimated Finance Gaps, Yemen and Comparators, 2013



Source: IFC SME Finance Forum and authors' calculations

Figure 77 Estimated Finance Gaps Using IFC Methodology, Yemen, and Comparators, 2013

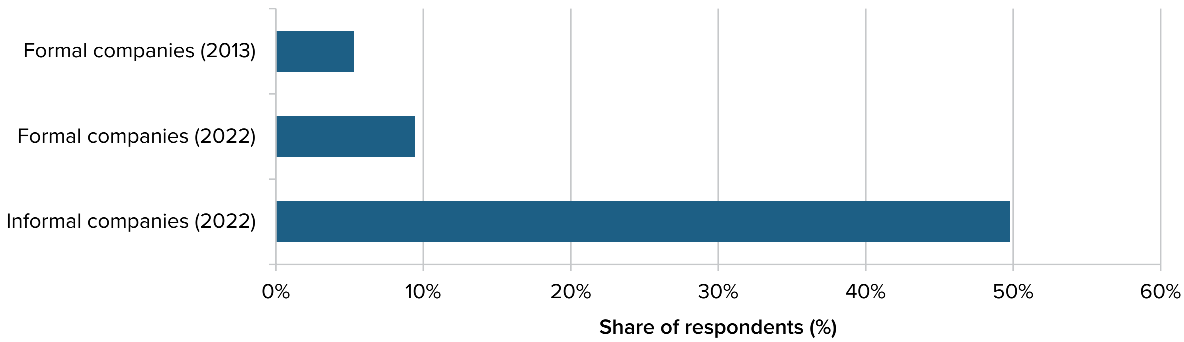


Source: IFC SME Finance Forum and authors' calculations

CONSTRAINTS ON FIRMS' ACCESS TO CREDIT

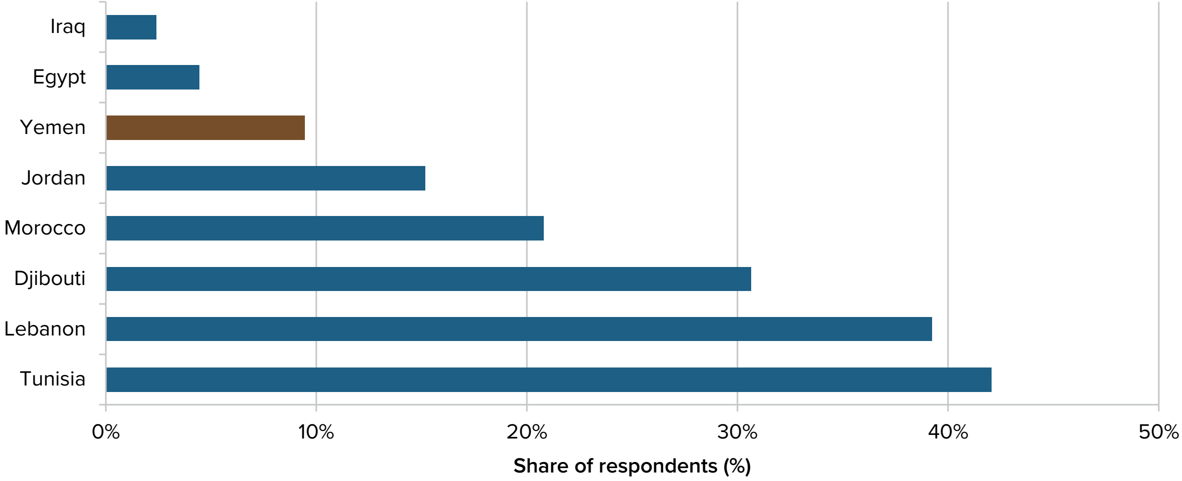
Few firms in Yemen report having access to credit. In the World Bank Enterprise Surveys, the share of firms that reported having a loan or line of credit increased from 5.3 percent in 2013 to 9.5 percent in 2022, less than half the regional average of 24 percent (Figure 78 and Figure 79). Informal firms were 50 percent less likely to report having a loan or a credit line. Moreover, just 1.3 percent of informal firms reported working with a microfinance institution and most likely obtained their loans from informal sources, such as friends and family or money lenders. Formal firms may have been less willing to disclose financing from informal sources.

Figure 78 Firms that Report Having a Loan or Line of Credit, Yemen



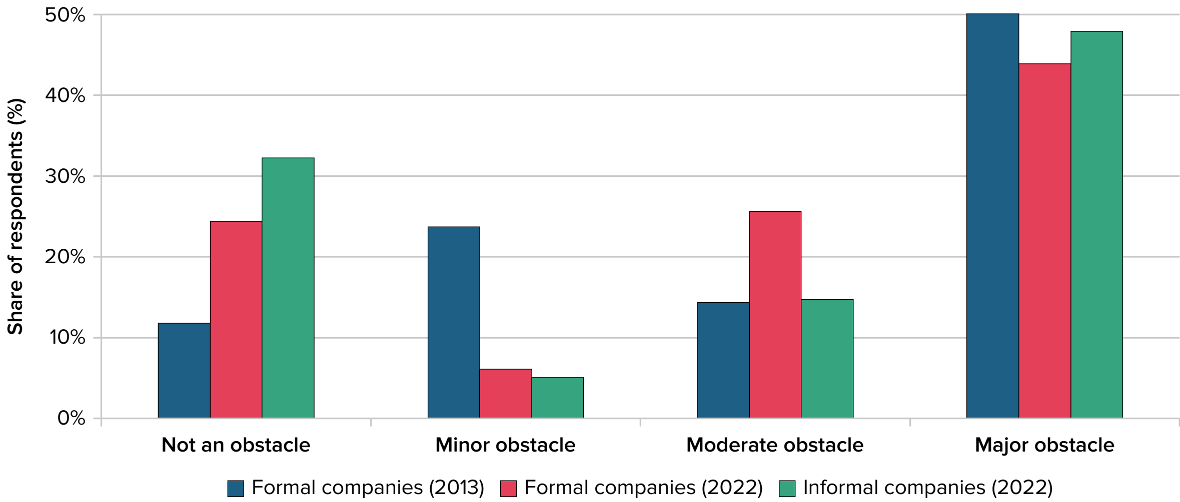
Source: Yemen Enterprise Surveys (2013, 2022)

Figure 79 Firms that Report Having a Loan or Line of Credit, Yemen, and Comparators



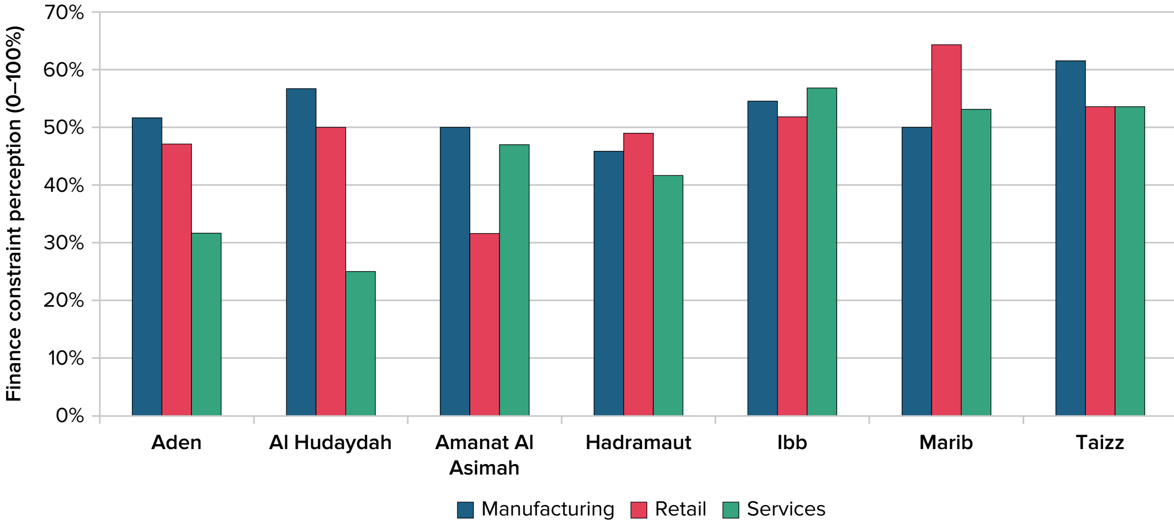
Source: World Bank Enterprise Surveys, 2022 Yemen Enterprise Survey

Figure 80 Perception of Access to Finance as an Obstacle among Yemeni Firms



Source: Yemen Enterprise Surveys (2013, 2022)

Figure 81 Perception of Access to Finance as an Obstacle among Yemeni Firms by Area and Sector

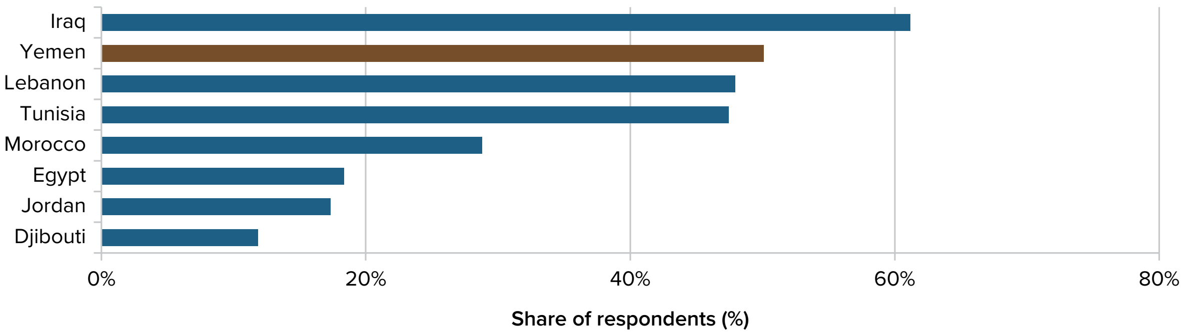


Source: 2022 Yemen Enterprise Survey

Most Yemeni firms describe themselves as financially constrained. About half of all firms, both formal and informal, cite inadequate access to finance as a major obstacle to doing business, with no significant change observed between 2013 and 2022 (Figure 80). While 24 percent of formal firms and 32 percent of informal firms did not list access to finance as an obstacle to doing business, the issue may have been overshadowed by more serious challenges stemming from the conflict.

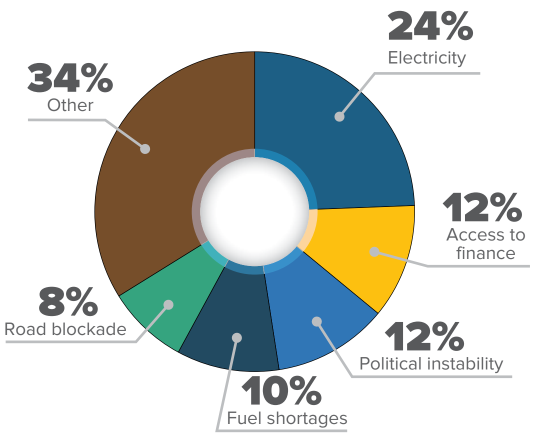
Access to finance remains a top concern across sectors and geographic areas. The manufacturing sector, which is typically capital-intensive, appears more financially constrained than agriculture or services (Figure 81). Moreover, 50 percent of Yemeni firms report finance as a major constraint, well above the regional average of 32 percent (Figure 82). When asked which constraints weigh most on their operations, formal and informal firms both list access to finance among the top five (Figure 83 and Figure 84), behind electricity access and instability.

Figure 82 Share of Firms Citing Finance as a Major Constraint on Doing Business, Yemen, and Comparators



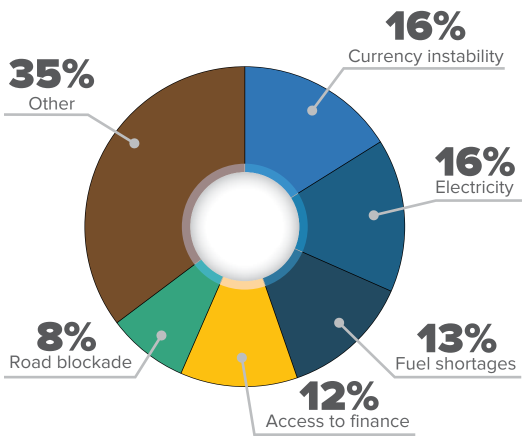
Source: World Bank Enterprise Surveys, 2022 Yemen Enterprise Survey

Figure 83 Top Constraints on Doing Business Cited by Formal Firms in Yemen



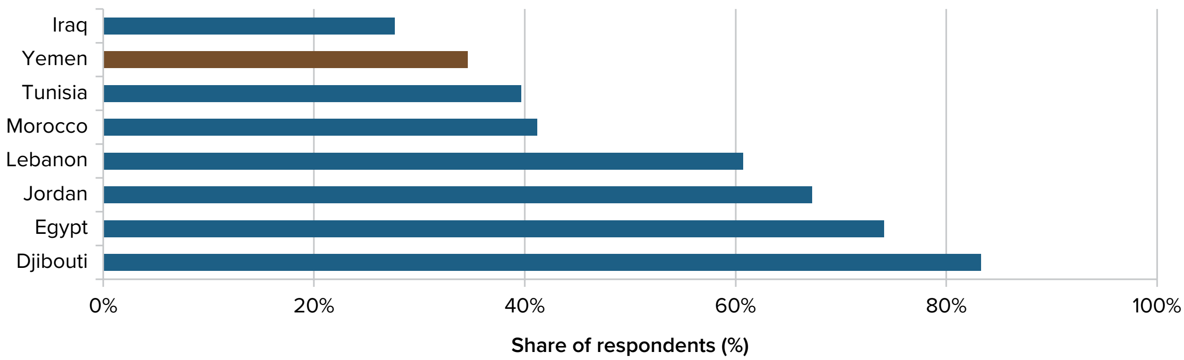
Source: 2022 Yemen Enterprise Survey

Figure 84 Top Constraints on Doing Business Cited by Informal Firms in Yemen



Source: 2022 Yemen Enterprise Survey

Figure 85 Share of Firms that Report Not Needing a Loan, Yemen, and Comparators



Source: World Bank Enterprise Surveys, 2022 Yemen Enterprise Survey

Although lack of financing is a major concern for firms in Yemen, not needing a loan was the most common reason formal firms cited for not applying for a loan. However, just 35 percent of formal firms in Yemen reported not applying for a loan because they did not need one, whereas the regional average is far higher at 59 percent (Figure 85). This finding suggests that supply-side challenges, not weak demand, drive low levels of credit uptake in Yemen. Inadequate financial infrastructure likely imposes a serious constraint on the supply side: Yemen scored 0 out of 8 on indicators of the depth of credit information in the 2019 World Bank's Doing Business Index, far below the regional average of 4.55.

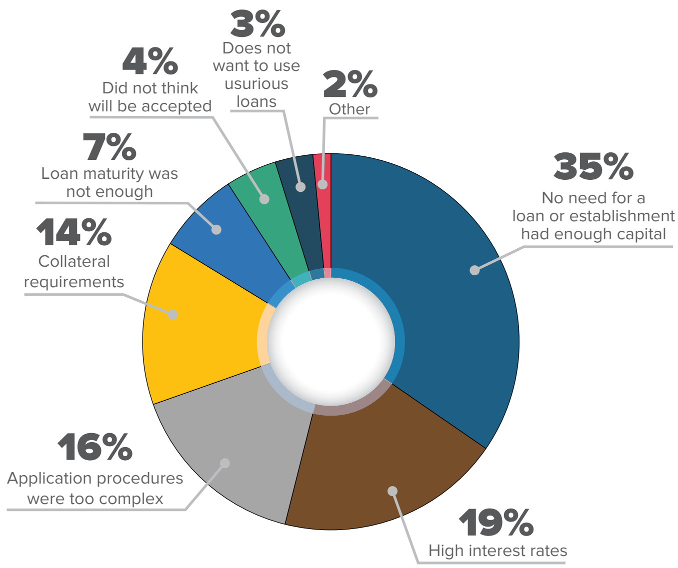
Yemeni firms face among the highest lending interest rates in the region. Among firms having reported needing credit, high interest rates were the main reason cited for not applying for a loan (Figure 86). 19 percent of firms considered interest rates too high. As of 2013, the latest datapoint available for Yemen, the average lending interest rate reached as high as 22 percent, far above peers in the region (Figure 87). Other reasons for not applying for a loan include supply-side factors such as large collateral requirements and short loan maturities, as well as demand-side issues such as potential applicants believing they would not qualify for a loan or declining to apply for what they perceived to be usurious loans. Nonetheless, these reasons were cited by only a small share of firms (Figure 86).

Complex application procedures in the context of limited financial literacy appear to be a serious barrier to financial access. By contrast, complex application procedures and low levels of financial literacy pose a serious challenge, as Yemeni firms appear to have more difficulty navigating the loan process than firms elsewhere in the region (Figure 88). In 2015, a global survey conducted by Standard & Poor's Ratings Services reported that financial literacy among adults was just 13 percent, placing Yemen at the bottom among 140 countries worldwide. The ongoing conflict in Yemen is likely to have exacerbated the already low levels of financial literacy in the country as 40 percent of households in Yemen have experienced the loss of their primary source of income. The SFD has taken action to address this issue, but its reach remains limited with about 600 beneficiaries attending awareness and training as part of their switch to mobile money in 2023[59].

59 World Bank, "Yemen government to person payment landscape assessment – in facilitation of piloting digital payments via the UCT" (2023)

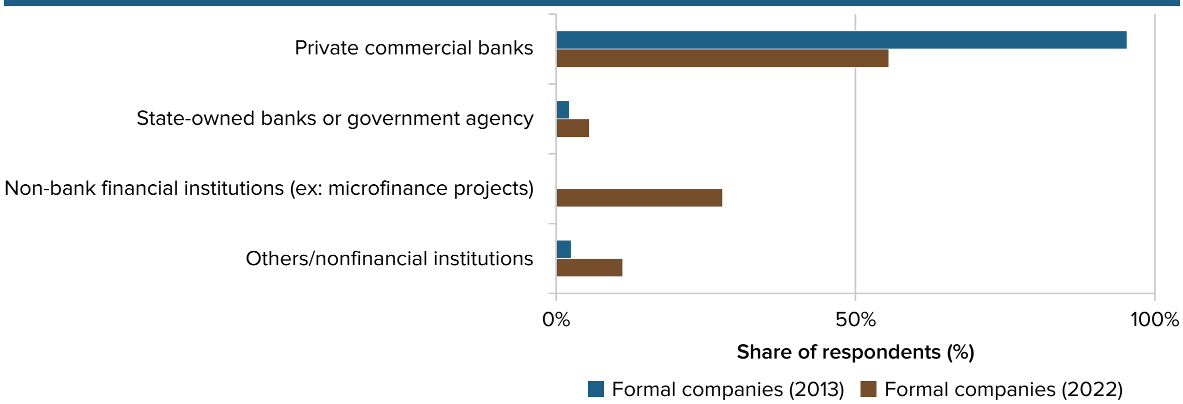
Financial institutions should streamline their requirements while engaging with the public sector and development partners to increase financial literacy through public outreach. Financial literacy appears to be the only major constraint on the demand side, allowing firms, policymakers, and other stakeholders to focus their efforts (Table 5).

Figure 86 Main Reasons Cited by Yemeni Firms for Not Applying for a Loan



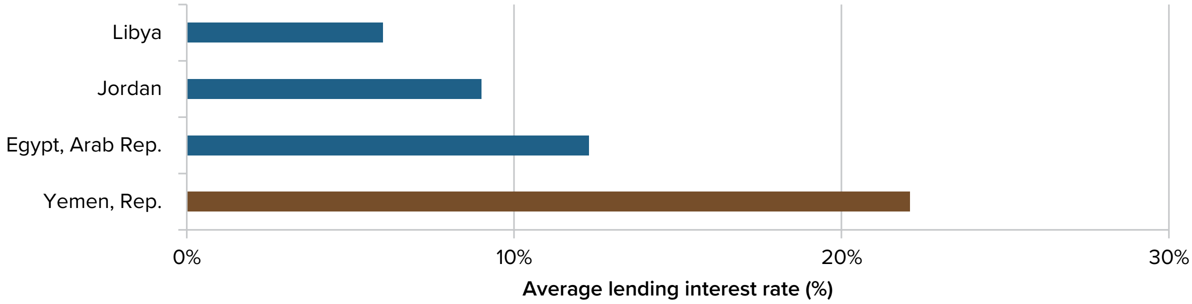
Source: 2022 Yemen Enterprise Survey

Figure 87 Perceived Complexity of Credit Application Procedures among Firms, Yemen, and Comparators



Source: Yemen Enterprise Surveys (2013, 2022)

Figure 88 Lending Interest Rates – Peers Comparison



Source: IMF, International Financial Statistics

Table 5 Summary of Constraints on Firms' Access to Credit

Demand side			Supply side		
Low human capital	Low levels of formality	Low appropriability	High cost of finance	Poor infrastructure	Fragile institutions
Low educational attainment		Low returns on capital investments	High interest rates	Complex application procedures	Regulatory uncertainty
Low financial literacy		Cultural and religious perception of finance	High collateral requirements	Low branch density	Financial system fragmentation

In recent years, the Yemeni authorities have worked toward improving companies' access to finance. In a recent survey, 2.1 percent of firms reported having received support from the Yemen Loan Guarantee Program (YLG), The Small and Micro Enterprise Promotion Service (SMEPS), Amal Bank, or a similar support program. The YLG was launched in 2017 to provide guarantee services to SMEs. As of 2022, the YLG issued more than 5,700 guarantees bearing on a total amount of 10.7bn YER[60]. SMEPS and Amal Bank guarantees tend to target underserved populations, such as women entrepreneurs. However, commercial banks are reluctant to provide these guarantee schemes to their clients as they face increasingly long delays in recovering funds from defaulted loans backed by such guarantees. In addition, the CBY-Aden and CBY-Sana'a are both moving towards digitizing payments. The former recently launched a project to digitize the salaries of more than 1.6 million state employees, which it plans to expand to encompass the private sector. During the initial phase, 1.6 million bank accounts will

60 Yemen Loan Guarantee, https://www.ylg-yemen.org/what_we_do

be opened, significantly contributing to financial inclusion while strengthening oversight of the public payroll. The planned digitization of payments will significantly enhance financial inclusion for Yemeni households. Given the country's struggle with high levels of institutional fragmentation, the provision of essential economic services, such as payments to civil servants, has been severely impacted. Implementing digital payment systems can help mitigate these challenges and ensure more efficient and accessible financial services for the population (Box 10).

Box 10 Yemen's Institutional Fragmentation and the Payment of Civil Servants

An ongoing World Bank Civil Service Payroll assessment in the Government of Yemen[61] illustrates the challenges of the institutional fragmentation and long-reaching disruptions the country is facing along multiple dimensions as a result of the conflict. The smooth functioning of the payments to civil servants is obviously a crucial issue for the Yemeni economy and will be a key indicator of the restoration of normal social conditions. From the supply side, the disruptions of payment to civil servants has direct repercussions on the provision of basic services to the population, such as health and education, while on the demand side the lack of payment has further strained living conditions for the Yemeni population. The World Bank assessment (in progress) covers institutional responsibilities, reviews the Civil service lay and pertinent laws and assesses the impact of the country's fragmentation on the civilian workforce, on data systems, and on payroll management and payments in IRG areas.

The public sector wage bill has historically represented a major and growing fiscal expenditure for Yemen prior to the conflict. The wage bill doubled between 2005 and 2010, and its growth was 50% higher than revenue growth between 2008-2014. In 2014, the wage bill amounted to 42% of the country's revenues and a third of all Yemeni households received public sector salaries. The public sector employed an estimated 1.2 million workers, almost equally split between what are today's IRG- and DFA-controlled areas (52% and 48%, respectively). Of these 1.2 million workers, about 50% were civilians, and of these latter about 60% were employed in the education and health sectors. Today, the payment of civil servants faces serious disruptions in both the Internationally Recognized Government (IRG) area and that under the Houthi control, or De-Facto authority (DFA), the wage bill has become unaffordable, and institutional and operational integrity are weak.

Low Affordability

In the IRG areas the wage bill is currently unaffordable mostly due to the collapse in government revenues, and to the rampant inflation that since the outset of the conflict has

61 World Bank, Strengthening Institutions for Service Delivery in Yemen, Payroll Assessment, draft.

Box 10 Yemen's Institutional Fragmentation and the Payment of Civil Servants *(Continued)*

ballooned the wage bill in nominal terms. By 2020, salaries accounted for 77% of revenues and 45% of government expenditures in the IRG – a strong increase for a smaller pool of workers, since the IRG does not pay civil servants in DFA areas. IRG has managed to pay its civil servants' basic salaries (but not their allowances, with the notable exception of a 30% cost of living allowance approved in 2019 in light of the inflation). However, the wage bill only pays for civil servants who were in the system in 2014, as there has been no retirement nor formal recruitment into the civil service since then. Other budget lines, and revenues collected directly by spending units are used to pay contract workers hired outside normal hiring process and scrutiny. In the Houthi-controlled part of the country, the DFA has been unable to service the civil servants' payroll monthly but has instead resorted to periodic payments of half the salary. The DFA has also added new employees directly into the civil service lists, which is also outside normal hiring procedures.

Weak institutional and operational integrity

There was no integration of payroll and personnel records by 2014, and the situation only worsened with the conflict, with the displacement of the Ministry of Civil service to Aden and the loss of the Employee' database and Biometric identification system. Today, there is no central payroll or register of public officials[62], no centralized management system supporting human resource management or payroll calculations, no integrated financial management system. Payroll integrity is thus weak, as there is no automated payment calculation, limited (if any) verification of the integrity of the paylists, and a generalized insecure handling of payment instruments. Salary payments are no longer made to accounts held by employees in commercial banks and are either paid in cash via a teller at the spending unit, over the counter at an exchange house, or at the post office. Risks of errors and abuse in using manual verification of identities and cash payments are substantial.

THE RISE OF ALTERNATIVE CREDIT PROVIDERS

The quality of Yemen's financial infrastructure was already low prior to the conflict. In 2014, Yemen had 6.4 ATMs per 100,000 inhabitants, about 2.8 times less than the average for Arab countries.[63] The number of point-of-sale (POS) locations experienced a nearly 32% decline in 2016, dropping to 200 devices compared to the 1,500 POS in 2014. However, by 2018, this trend reversed,

62 The relocation of the Yemen Ministries from Sana'a to Aden implied that the IRG lost access to data and data infrastructure when they moved to Aden, including the employee database and the biometric database, which complicates the correct identification of the beneficiaries.

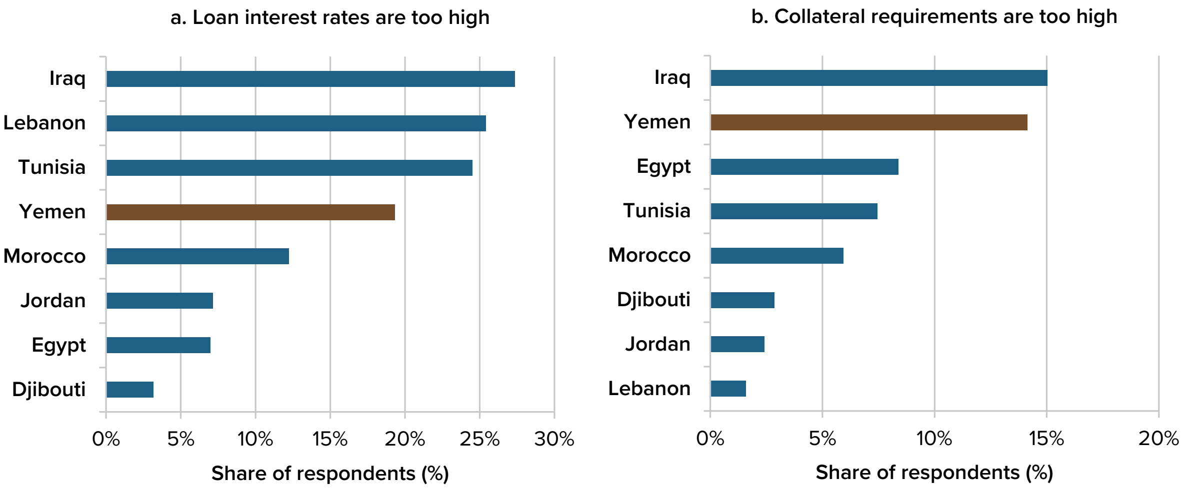
63 IMF, Financial Access Survey.

with the figure tripling to reach 817 in 2019.[64] Financial infrastructure was broadly underdeveloped, and although most of the population lives in rural areas, access points for banking and other traditional financial services were concentrated in major cities.

The conflict further weakened Yemen's already fragile financial system and eroded public trust in banks and other traditional service providers. Bank branches were forced to close or suspend operations due to security concerns, limiting the ability of firms and households to conduct everyday financial transactions, access credit, or save money. Commercial banks have also had to cope with the fragmentation of central bank authority, and the need to comply with conflicting regulations further disrupted their operations, increased costs, and reduced trust in formal financial institutions.[65]

As commercial bank deposits declined, banks reduced their lending activities. The volume of cash outside the banking sector increased from 26 percent in 2014 to 51 percent in 2019[66]. Facing a sharp decline in funding, elevated risk, and mounting regulatory uncertainty, commercial banks increased financing costs and collateral requirements. The supply of credit to the private sector decreased faster than GDP, reaching an all-time low of 2.4 percent of GDP in 2021. In 2022, 19 percent of formal firms considered interest rates to be too high, above the average of 14 percent for selected peer countries. In addition, 14 percent of formal firms cited excessively high collateral requirements, more than double the peer-group average of 6 percent (Figure 89).

Figure 89 Key Reasons Cited by Firms for Not Applying for a Loan



Source: World Bank Enterprise Surveys, 2022 Yemen Enterprise Survey

64 World Bank, "Yemen government to person payment landscape assessment – in facilitation of piloting digital payments via the UCT" (2023)
65 ODI-Acaps, "Impact of Conflict on the Financial Sector in Yemen: Implications for food security" (2021)
66 Small and Micro Enterprise Promotion Service, *Digital Payments Study in Yemen* (2023)

As banking operations contracted, microfinance institutions and banks, money exchangers, and fintech providers stepped into the gap. The share of formal firms using commercial bank financing dropped from 95 percent in 2013 to 56 percent in 2022, while the market share of nonbank financial institutions rose from nearly zero in 2013 to 28 percent in 2022 (Figure 90). Informal firms mainly rely on their own savings and loans from relatives to meet their financing needs, but 16 percent use informal money lenders, and 1.3 percent access microfinance institutions (Figure 91). In 2022, 59 percent of formal firms reported using exchange companies as their main intermediary, while only 20 percent continued using commercial banks (Figure 92).

E-wallets and other digital payment services also increased in popularity, both in the North and in the South, facilitated by the CBYs' regulatory rules on digital payments. The effort of CBY-Sana'a to restrict the use of printed notes in controlled zones accelerated the usage of e-money. As of 2020, an estimated 800,000 individuals had mobile money accounts.[67] A 2019 study conducted by the Yemen Microfinance Network found that 72 percent of females and 80 percent of males employed mobile banking for bill payments. These digital payment solutions have enabled vulnerable households to benefit more simply from unconditional cash transfer programs rolled out by the World Bank and partners (Box 10). They also contribute to improving the population's financial literacy. To enable the rollout of payment systems, CBY-Aden has conducted important regulatory reforms since 2019, followed by CBY-Sana'a, providing the country with a comprehensive regulatory framework on payment systems on par with developed countries. The missing cornerstone is now on the infrastructure side. CBY-Aden endeavors to find funding to facilitate daily operations, enable interoperability between payment systems and thus increase their adoption (Box 11).

Box 11 Regulations and Initiatives Led by CBY-Aden to Improve Payment Systems in Yemen

The CBY plays a multifaceted role, acting as a regulator, overseer of payment infrastructure, operator of payment systems, and a catalyst for reducing cash dependency. Starting 2019, CBY-Aden has implemented a series of initiatives to reform and enhance payment systems in the country. Collaboration with Pragma led to the creation of a dedicated payment system department, SWIFT activation for near-same-day settlements, and the development of regulations for e-money and consumer protection. CBY-Aden aimed to align with international best practices issuing regulations on payment systems for both bank and non-bank actors.

Looking forward, CBY-Aden is focused on infrastructure development, including proposals for an automated clearing house (ACH) and real-time clearing system (RTCS), pending financing. Licensing non-bank payment service providers (PSPs) is also a priority, with efforts to improve Know Your Customer (KYC) check quality. Memorandums of Understanding (MoUs) have

67 Institute of Banking Studies, *Electronic Payment Services in Yemen, Challenges and Opportunities* (2020)

Box 11 Regulations and Initiatives Led by CBY-Aden to Improve Payment Systems in Yemen *(Continued)*

been pursued to enhance collaboration with non-bank PSPs, covering areas such as IT, risk, banking, and regulation. Training sessions have also been conducted to address various aspects, including scaling up activities, cybersecurity in payments, and business continuity challenges, with stakeholders displaying significant interest.

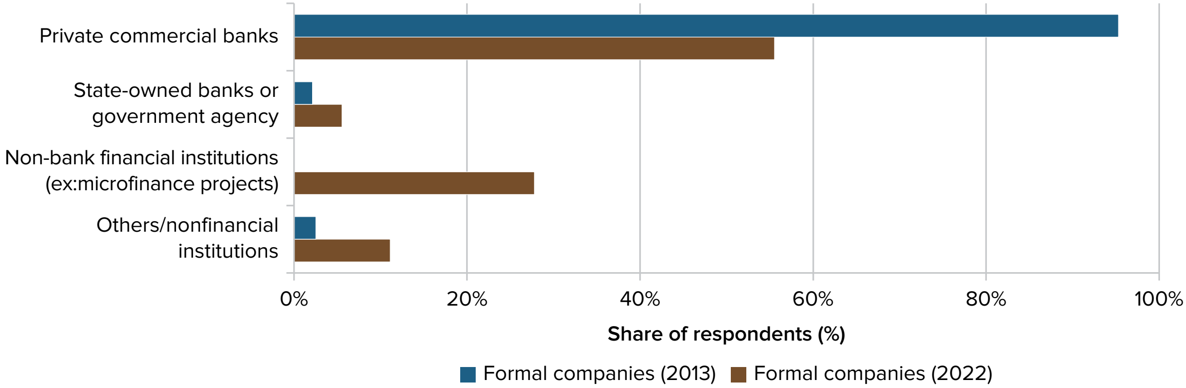
Recent developments include Yemen joining the international platform Buna, operated by the Arab Monetary Fund (AMF), aimed at facilitating remittances and cross-border payments. Despite encountering political challenges, the roll-out of electronic payments of salaries for public servants has made significant progress, with conditions imposed by the AMF playing a pivotal role. In the current state of PSP licensing, commercial banks in Aden are relatively active, with three offering e-wallets as of December 2023. The licensing process for digital payment providers is ongoing, with local and international players in the pipeline. Non-bank PSPs are actively participating, with three in advanced stages, and two from Sana'a applying to provide e-wallets in Aden.

In comparison with CBY Sana'a, regulatory frameworks are similar and infrastructure levels remain comparable between the two regions, but differences exist in the use of e-rial (to curb banknote deterioration) instead of e-wallets. PSPs in Sana'a face encouraging results but are not authorized to operate in Aden without investing in separate infrastructures located in the South.

The role of microfinance players has grown rapidly in recent years, to the point that, in 2021, they supplied 9 percent of total credit to the private sector (Figure 93). Microfinance institutions (MFIs) provided average interest rates of 19 percent as of 2021[68], compared to commercial banks' rate of 22 percent as of 2013 (Figure 88). Given the macroeconomic environment, it is likely that commercial banks' interest rates increased since then. Most microfinance institutions have a non-profit mission. 13 out of 15 MFIs are backed by the SFD, which lends them capital at a 0 percent rate and allows them to provide comparatively more advantageous terms than other lenders. However, this funding mechanism provides little room for competition between MFIs and limits their growth to the funds that the SFD is able to mobilize from international lenders and donors. Hence, the rapid growth that MFIs were able to sustain over the last years is likely to tap off. To keep the microfinance institutions' sector viable, the SFD should explore different funding options, such as incentivizing commercial banks to lend to MFIs as part of a wholesale lending mechanism.

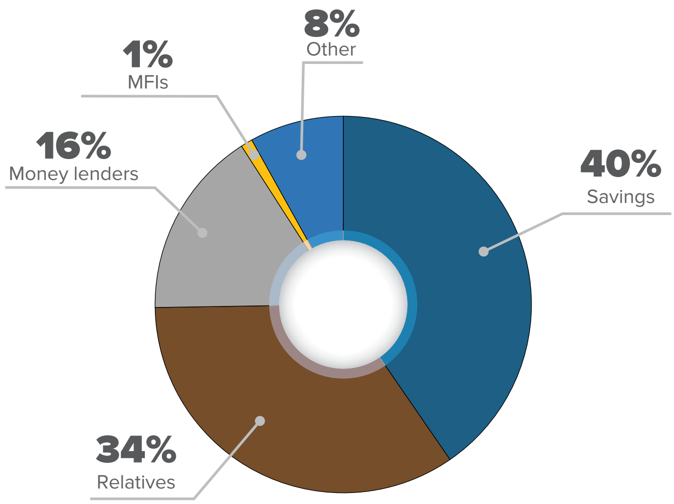
68 Yemen Microfinance Network, *Impact Assessment of Microfinance Services in Yemen* (2021)

Figure 90 Sources of Financing Among Formal Firms



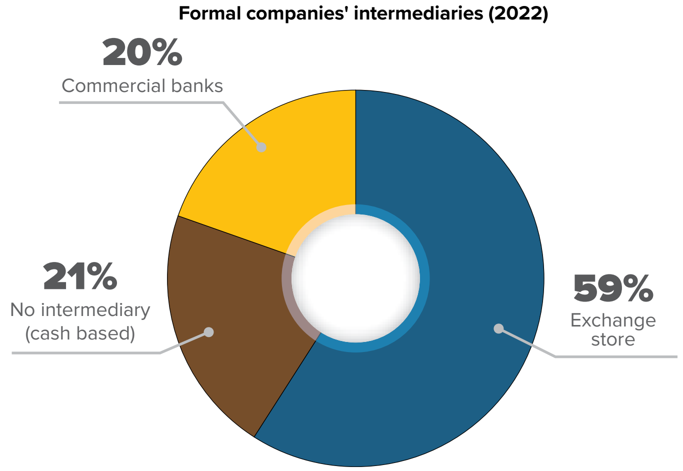
Source: Yemen Enterprise Surveys (2013, 2022)

Figure 91 Sources of Financing among Informal Firms in Yemen, 2022



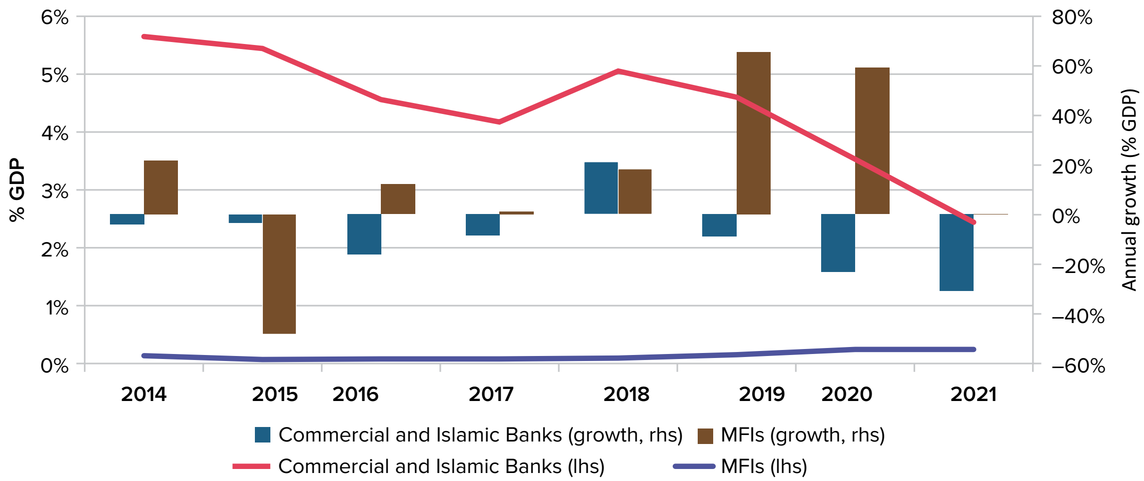
Source: 2022 Yemen Enterprise Survey

Figure 92 Financial Intermediaries Used By Formal Firms



Source: 2022 Yemen Enterprise Survey

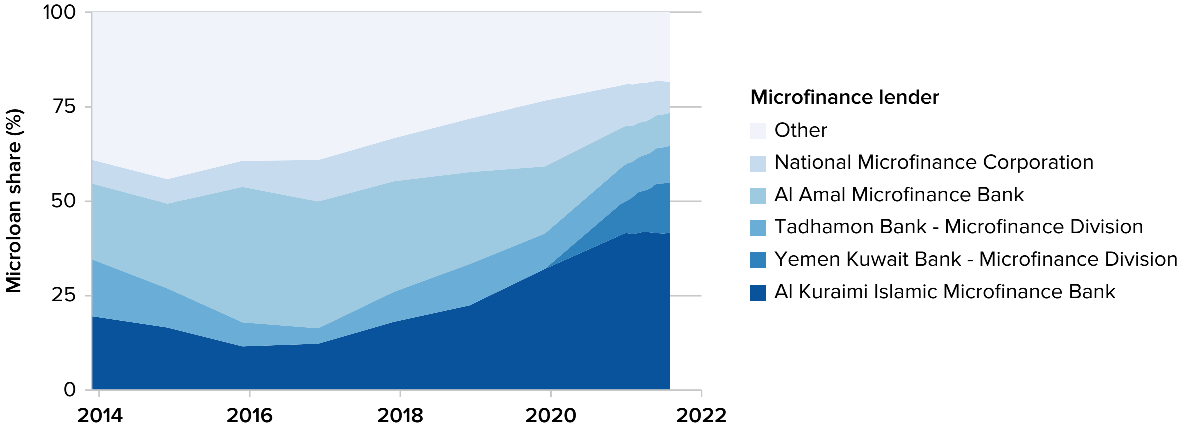
Figure 93 Credit to the Private Sector from Commercial Banks and Microfinance Institutions



Source: authors' calculations based on the data from Yemen Microfinance Network

The microfinance subsector has gradually shifted its orientation from pursuing nonprofit development objectives to embracing a profit-driven model.[69] Given the funding constraints faced by MFIs, private actors have increasingly entered the microfinance sector, including dedicated microfinance banks and microfinance branches of conventional banks. CBY-Aden has provided technical support to commercial and islamic banks who are interested in entering the microfinance market by establishing SME lending units and by investing in capacity building and training to shift from asset and collateral-based lending to cash-flow-based lending, which benefits more SMEs. Private microfinance banks (MFBs) now surpass older nonprofit institutions such as the National Microfinance Institutions, founded in the early 2000s as a joint venture between the Yemeni government and the private sector (Figure 94).

Figure 94 Top Five Microfinance Institutions by Share of Microloans in Yemen

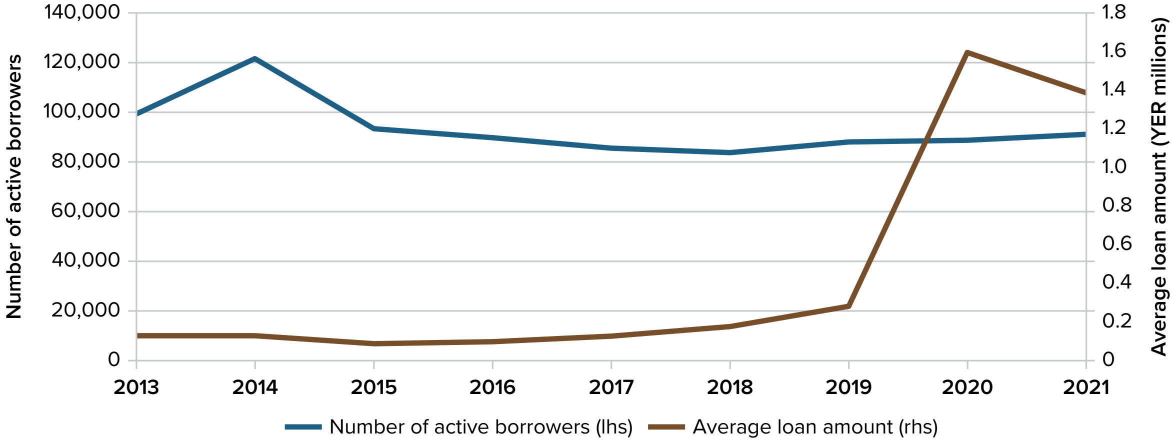


Source: Authors' calculations based on data from the Yemen Microfinance Network

Despite the entry of new players, the microfinance market remains very concentrated, with the top five actors representing more than three-quarters of all outstanding microloans. In 2021, total outstanding microloans reached 0.24 percent of GDP. The microfinance subsector's growth appears to be driven by larger loan amounts rather than a net increase in the number of borrowers, which has remained broadly stable at 80,000 – 90,000 (Figure 95). Yemen Kuwait Bank's entry into the microfinance market has driven up the average loan amount, as its average loan is YER 9 million, whereas the second largest microfinance institution, Al Kuraimi, has an average loan of just YER 1.8 million (Figure 96). While the microfinance sector's growth seems to have slowed in 2021, microfinance institutions have succeeded in de-risking their portfolios. The median portfolio risk fell from 54 percent in 2017 to 10.5 percent in 2021, which may reflect the entry of for-profit institutions that place a greater emphasis on containing their risk levels (Figure 97).

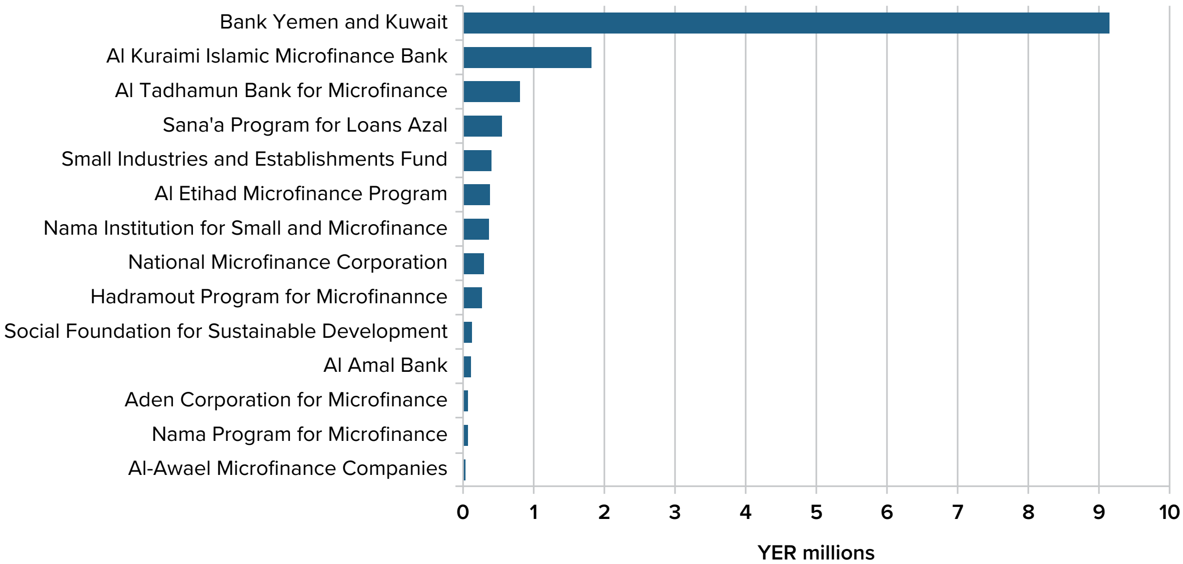
69 Yemen Microfinance Network, *Impact Assessment of Microfinance Services in Yemen* (2021)

Figure 95 Average Microloan Size and Number of Active Borrowers



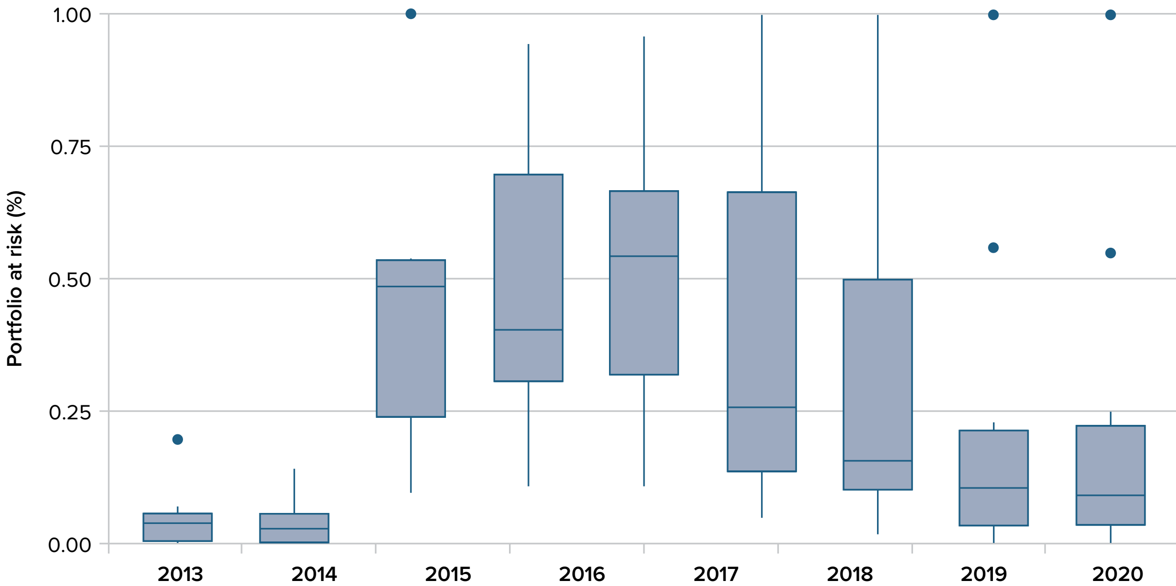
Source: Authors' calculaton based on data from the Yemen Microfinance Network

Figure 96 Average Microloan Size Per Microfinance Institution



Source: Authors' calculation based on data from Yemen Microfinance Network

Figure 97 Evolution of Microfinance Portfolio at Risk Distribution



Source: Authors' calculation based on data from the Yemen Microfinance Network

Besides commercial banks diversifying into the microfinance sector, 22 exchange house groups have applied to receive MFB licenses, of which more than 5 received approval by the CBY-Aden. Exchange houses hold deep liquidities but their entering the lending business will require them to transform their activities and rapidly acquire the know-how to manage SME lending (establishing risk management entities, infrastructures, etc.). Although MFBs' credit ceiling is set to 1,000 USD, commercial banks face increasing competitive pressure, especially to serve smaller SMEs. As a result, commercial banks have started to adapt their offers by engaging in more marketing, repricing their existing products, and issuing more attractive products tailored to SMEs such as short-term loans, asset finance loans, factoring, vendor financing, and asset leasing on selected assets produced by banks' shareholders' family groups. This healthy competition should serve SMEs' access to finance. Once new MFBs have proven their ability to provide microcredit in a stable and responsible manner, the Central Bank should encourage the larger ones to apply for fully-fledged banking licenses to extend the competitive pressure to larger segments of the lending market.

POLICY RECOMMENDATIONS TO IMPROVE ACCESS TO FINANCE

Introducing a Deposit Guarantee Scheme. Firms' low access to finance seems mostly driven by supply-side constraints that bear on the economy. The freezing of the payments on government debt is negatively affecting the ability of banks to raise deposit funding, translating into lower access to credit for the private sector. In the short term, macroeconomic and political stability remains the most pressing issue. However, the Central Bank of Yemen should take action to bring down regulatory uncertainty and send trust signals to financial actors. In this regard, after the end of the conflict, the introduction of a deposit guarantee scheme may help in restoring trust in the banking system.

Promoting digital financial services. Given the challenges posed by limited physical banking infrastructure, the Central Bank should keep investing in the promotion and expansion of digital financial services. This includes continuing efforts to develop the payment infrastructure to encourage the use of mobile banking, digital wallets, and online payments while ensuring consumer protection with fair and transparent regulations. The recent development of fintech products is encouraging as they provide consumer-centric experiences and increase the competitive pressure on the legacy players. Supporting the rise of digital financial solutions can significantly enhance access to financial services for households and firms, especially in rural areas where traditional banking is scarce. The Central Bank should however strike the right balance between facilitating the emergence of new players and ensuring the financial sector stability.

Supporting the supply of credit to the economy. Firms' low access to finance seems mostly driven by supply-side constraints that bear on the economy. In the short term, macroeconomic and political stability remains the most pressing issue. However, the Central Bank of Yemen should take action to bring down regulatory uncertainty and send trust signals to financial actors. To keep supporting microfinance institutions' growth, the SFD should explore different funding options, such as incentivizing commercial banks to lend to MFIs as part of a wholesale lending mechanism. The Central Bank should also improve the efficiency of credit guarantee schemes for SME loans. A credit guarantee firm could be created under the Central Bank with all commercial banks as shareholders to align incentives. International donors' experience in establishing similar initiatives in the region could be leveraged to provide technical assistance.

Enhancing financial literacy and reducing the complexity of credit. Even though most of the constraints bear on the supply side, the perceived complexity of procedures seems to prevent a large share of companies from applying for credit. Building on the SFD's effort to train vulnerable populations in digital finance tools, the Central Bank may incentivize financial actors to provide e-trainings to their customers and streamline application procedures. The provision of financial education, entrepreneurship training, and awareness-raising workshops can strengthen firms' capacity to deal with financial institutions and enhance their business impact.

Conclusions

Recent literature on Yemen's economy and financial sector has highlighted the constraint of available and verifiable data. This report relies on new datasets and alternative data-gathering methodologies to bypass this data constraint. The innovative data-gathering methodologies enabled the team to compile credible data on Yemen's sovereign domestic debt and financial statements for commercial banks, microfinance institutions, and money exchange companies. These novel datasets allowed the team to understand the business models of the different players in Yemen's financial sector, the emergence of new players since the start of the conflict, and gauge the impact of the conflict on the financial sector's stability and characteristics.

Similar to the growing body of literature on Yemen, this report finds that economic fallouts from the conflict have distorted efficient allocation across the economy, with all of Yemen's financial sectors players facing some form of structural vulnerability. The implications of the domestic and foreign currency liquidity crisis and the bifurcation of monetary and regulatory authority are affecting all the financial sectors' stakeholders, to varying degrees. This report adds to the body of literature on Yemen through the analysis of the impact of said fallout on the different financial institutions.

The Yemeni financial sector defies simple categorization. It's an ecosystem marked by historical and recent fragilities, but also by resilience and adaptability. The report tries to explore this multifaceted reality and complexity. The heterogeneity of actors within the traditional commercial banking sector, as well as the interconnectedness of the banking sector with Money Exchangers, are two key findings of the report. The recent approval of the so-called "anti-usury" law, threatens to have devastating consequences, further exacerbating the fragility of the financial sector. Given the likely insolvency of several banks, consolidation in the banking industry might be unavoidable, with the resolution and liquidation of banks excessively tied to the sovereign. It is crucial for both international and national stakeholders to work together closely, developing a unified strategy to deter the Houthi authorities from enacting the law. A cohesive approach needs to be forged, underscoring the severe humanitarian and economic implications of this legislation.

The Central Bank has a primary role in ensuring macrofinancial stability and financial integrity. Building on its reform momentum and the renewed policy dialogue between the IRG, DFA, and other factions, the Central Bank of Yemen-Aden should establish a framework for mediating with the Central Bank in Sana'a. Both institutions should focus on conducting a comprehensive review of rule-of-law based legal/regulatory foundations to improve credible financial supervision/regulation which incorporate universally recognized principles of regulatory integrity, transparency, and accountability. This should include ensuring effective enforcement and the ability to apply administrative sanctions to address non-compliance of supervised entities. Although an end to the conflict will be the single most important contributor to the restoration of macro-financial stability and improved financial integrity, cooperation between the two central banks could help alleviate regulatory uncertainty while improving the quality of monetary policy. Initially, collaboration between the two central banks should focus on establishing data-sharing agreements and harmonizing exchange-rate policy.

Improving the degree of financial inclusion in Yemen is not just a matter of economic development; it's a fundamental step toward empowering marginalized communities and fostering overall societal progress. Access to basic banking services, digital financial tools, and financial education is crucial. The Yemeni government's role, supported by a robust regulatory framework set by the Central Bank, will be paramount in ensuring that these services reach every corner of the country. Basic banking services such as savings accounts, checking accounts, and payment services allow people to securely store their money and facilitate transactions. Digital financial services, such as mobile banking, digital wallets, and online payment systems, should be built to provide convenient and accessible ways for people to conduct financial transactions, especially in regions with limited physical infrastructure. Additionally, initiatives to enhance financial literacy will empower Yemeni citizens with the knowledge and skills necessary to make informed financial decisions.

A comprehensive financial inclusion strategy is essential, encompassing all aspects of financial inclusion. By focusing on providing marginalized elements of the Yemeni economy with access to basic banking services, digital financial tools, and financial education, the nation can empower its citizens, enhance financial stability, and promote economic growth. Government policies, supported by supportive regulatory frameworks, will play a vital role in creating an environment conducive to expanding financial access, ensuring that every Yemeni individual and community can participate fully in the country's economic development.

The CBY-Aden can help restore financial stability and rebuild trust in the banking sector by ensuring rule-of-law based legal and regulatory foundations exist upon which credible supervisory/regulatory processes can be considered effective. In the short term, the CBY-Aden should focus on moving swiftly to identify and resolve acute episodes of financial distress. A critical aspect involves addressing the issue of frozen commercial banks' deposits and government debt assets. The resolution of these matters will contribute to restoring trust within the Yemeni banking sector. These strategic steps are instrumental not only in enhancing liquidity conditions for banks but also in bolstering their operational capabilities and encouraging the influx of new deposits, vital for sustaining economic growth. In the long term, the CBY-Aden's should work toward ensuring prudent management of scarce liquidity during crises. Establishing a comprehensive deposit guarantee scheme should be a priority once political stability is restored. Such a scheme will instill confidence among depositors, safeguarding their funds and fostering a stable financial environment.

The key role of money exchangers as providers of liquidity to the economy should be preserved. On the basis of requisite legal/regulatory frameworks, the regulator should provide an established path for legitimately operating institutions to operate as supervised/regulated entities in accordance with prudential and integrity global standards, that include procedures for licensing or registration (as appropriate). The central bank should also deepen its understanding of the stability and money laundering and terrorist financing risks facing money exchangers and other financial institutions, to ensure that supervisory outreach is targeted at the highest risk entities. To facilitate Yemen's re-integration back into global financial markets, the Central Bank should also ensure that financial institutions comply with global Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) standards, including ensuring effective customer due diligence controls and transparency around ultimate beneficial owners of assets.

References

ACAPS (2021). The Yemeni Financial Sector: Challenges and Opportunities for Recovery.

ACAPS Analysis Hub (2021). Thematic Report: The impact of remittances on Yemen's economy. ACAPS.

Anthony B. (2020). The War for Monetary Controls Enters A Dangerous New Phase. Yemen Economic Bulletin, The Sana'a Center for Strategic Studies.

BDO Jordan and World Bank (2022), "Fiduciary Assessment of the Central Bank of Yemen", unpublished.

Central Bank of Yemen (2020). Quarterly Bulletin Economic and Monetary Developments. Issue No.1.

Central Bank of Yemen (2022). Quarterly Bulletin Economic and Monetary Developments. Issue No.9.

Central Bank of Yemen (n.d.). Quarterly Bulletin Economic and Monetary Developments. Issue No.4.

Central Bank of Yemen (n.d.-a). Monetary and Financial Developments. Issue No.9.

Central Bank of Yemen (n.d.-b). Monetary and Financial Developments. Issue No.1.

Fitch Solutions. 2023. "Fundamental Data and Analytics." Fitch Connect. Accessed September 1, 2023.

Institute of Banking Studies, Electronic Payment Services in Yemen, Challenges and Opportunities (2020)

Institute of Banking Studies. 2020. Electronic Payment Services in Yemen, Challenges and Opportunities.

International Finance Corporation. 2018. MSME Finance Gap: Assessment of The Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets. Accessed from: https://smefinanceforum.org/

International Monetary Fund (2022), "Republic of Yemen — Economic Developments", unpublished.

International Monetary Fund. 2022. "Yemen 2022 Economic Developments."

International Monetary Fund. Date Unknown. Financial Access Survey.

Not provided as a full source but indicated: Sales in Yemen were not reported in the 2022 version of the World Bank Enterprise Survey.

Not provided as a full source but indicated: These are: Australia, Canada, Denmark, Germany, Ireland, Israel, New Zealand, Switzerland, the United Kingdom, and the United States.

ODI-Acaps. 2021. "Impact of Conflict on the Financial Sector in Yemen: Implications for food security."

Reinhart C. M. and Sbrancia M. B. (2015). The Liquidation of Government Debt. International Monetary Fund WP15/7.

Sana'a Center Economic Unit (n.d.). Widening Exchange Rate Disparity Between New and Old Banknotes. Yemen Economic Bulletin, Sana'a Center for Strategic Studies.

Sana'a, Circular No. (3) of 1996 on the Minimum Ratio of Capital to Weighted Risk Assets (Capital Adequacy) (2019).

Sana'a Parliament. 2022. "Draft Anti-Usury Law." Memo to the Yemen Chamber of Commerce, September.

Small and Micro Enterprise Promotion Service. 2023. Digital Payments Study in Yemen.

The Sana'a Center for Strategic Studies (2018). The Yemen Review.

The Sana'a Center for Strategic Studies (2020). The Yemen Review Hostage in the Red Sea.

The Sana'a Center for Strategic Studies Economic Unit (2020). Battle to Regulate Banks Threatens to Rupture the Financial Sector. Yemen Economic Bulletin.

The split of the central bank of Yemen: A conflict that is costing people their lives (3; Economic Bulletin). (2020). Studies and economic media center.

UN Security Council (2023). Final report of the Panel of Experts on Yemen established pursuant to Security Council resolution 2140 (2014).

World Bank (2020). GDP Growth (annual %). World Development Indicators database.

World Bank (2020). GDP, Current LCU. World Development Indicators database.

World Bank (2020). Official Exchange Rate, LCU per USD. World Development Indicators database.

World Bank. 2007. Finance for all

World Bank. 2021. Global Findex Database.

World Bank. Date Unknown. Enterprise Survey.

World Bank. 2023. Yemen government to person payment landscape assessment – in facilitation of piloting digital payments via the UCT.

Yemen Microfinance Network, Impact Assessment of Microfinance Services in Yemen (2021)

Yemen Microfinance Network. 2021. Impact Assessment of Microfinance Services in Yemen.

Yemeni Bank Association. 2023. "Discussion on the Financial, Commercial, and Economic Implications of the Anti-Usury Law." Memo to the Yemeni Parliament, Sana'a, March.

Annex I.
Sovereign Debt Exposure

This annex explains the stress test methodology followed in Chapter II. The stress tests explore the rigidity of selected banks in Yemen. We estimate the fragility of selected Yemeni banks to their exposure to domestic public debt. We conduct two stress tests, one for shocks to the outstanding value of public debt holdings and one to shocks to revenue from interest payments on public debt.

In light of the 2023 Anti-usury law issued by the Sana'a parliament, the first direct stress test aims to identify the ratio of write-downs in public debt holdings that would deplete a bank's capital below the regulatory requirement. The direct stress test is run on the largest seven banks in Yemen, representing 75-80% of total banking sector assets as of 2019, to gauge the potential impact of the implementation of the usury law on the banking sector stability.

Assuming that the government bans full or partial interest payments on outstanding public debt, banks will have to adjust the present value of these assets on their balance sheets to reflect the decrease in present value given the decrease in periodical payments. The decrease in present value will possibly lead to write-downs or impairment charged to the value of government securities assets on the banks' balance sheets. Banks would have to evaluate their capital adequacy ratio and may need to raise additional capital to remain compliant with regulatory requirements. Thus, this exercise aims to identify the vulnerability level of different banks with respect to the risk of their capital falling below the regulatory requirement.

The balance sheet shock is represented by the write-down of the value of government securities following the elimination of interest payment from the present value of outstanding government securities. A stress test is conducted with different levels of government debt write-off ranging from 5% to 50% and simulates the impact on individual banks.

We perform the stress test on seven of the ten largest commercial banks – International Bank of Yemen, Tadhamon International Islamic Bank, Cooperative Agricultural and Credit Bank (CAC), National Bank of Yemen, Kuraimi Islamic Microfinance Bank, Yemen Kuwait Bank, Yemen Commercial Bank.

For each bank, we retrieve the following data with annual frequency: Total Capital Ratio, Risk-weighted Assets, stock of government securities, total assets, total liabilities, and total equity through the Fitch Connect database. Next, we augment this dataset with Yemen's minimum capital requirement based on Central Bank of Yemen regulations[70].

70 Sana'a, Circular No. (3) of 1996 on the Minimum Ratio of Capital to Weighted Risk Assets (Capital Adequacy) (2019).

$$\text{Capital to Assets Ratio} = \frac{\text{Total Capital (TC)}}{\text{Risk Weighted Assets (RWA)}}$$

Capital buffer is defined as the difference between the bank's Total Capital (TC) and the country's minimum capital requirement, defined as 8% of assets in Yemen. The write-down of debt would affect the total capital through decreasing assets, thus causing an equivalent decrease in equity and total capital.

We consider each bank *i* in two states: the pre-shock observed state at *t=0* and the simulated state after the shock at *t=1*. In each state, we rely on the following formula to calculate the banks' regulatory capital:

$$\text{Capital to Assets Ratio } (CAR_i^{(t)}) = \frac{\text{Total Regulatory Capital } (TRC_i^{(t)})}{\text{Risk Weighted Assets } (RWA_i^{(t)})}$$

Given that we are simulating shocks in capital due to write-downs of public debt holdings, we calculate Total Regulatory Capital at $t = 1$ as follows:

$$\textit{Total Regulatory Capital } (TRC)t^1 = \textit{Total Regulatory Capital } (TRC)t^0 \\ -\Delta \textit{ Government Securities Holdings } t^0$$

Where the change in public debt is each scenario's assume write-down ratio. We assume no impact on RWA at *t=1* given that

$$RW\,A = \sum (\textit{Assets Value}) * \textit{Risk Weight}$$

In the case of the stress test performed in Chapter 2, the risk-weighted assets after the shock is:

$$RW\,A\ t^1 = RW\,A\ t^0 - (\Delta \textit{ Government Securities Holding } t^0)$$

Given that the risk associated with domestic public debt assets tend to be 0, thus the change in the value of domestic public debt would not change RWA t=1 compared to RWA t=0. Feeding these equations into the capital to assets ratio, we obtain the following:

$$\textit{Capital Adequacy Ratio } t^1 = \frac{TRC\ t^0 - \left(\Delta * \textit{Outstanding Government Securities holdings } t^0\right)}{RW\,A\,t^1}$$

The resulting Capital Adequacy Ratio enables us to compare the different banks' ability to withstand different levels of shocks to write-down to their holding of public debt without falling below the mandatory capital requirement ratio set by the Central Bank of Yemen.

For the second stress test, we estimate the immediate effect on capital from the loss of revenue from the decrease in interest payment on government securities resulting from the implementation of the Anti-usury law.

The loss of revenue from halting interest payment would have a very serious impact on the banking sector given that interest on government securities represent the majority of sector's revenue.

In the second stress test scenario, we assume no write-down of public debt assets and rather simulate the change in Capital Adequacy Ratio due to a decrease in capital from the loss of retained earnings through decrease in other interest income following the prohibition of interest payment on government debt.

We perform the second direct stress test on the same seven banks studied in the first stress test: International Bank of Yemen, Tadhamon International Islamic Bank, Cooperative Agricultural and Credit Bank (CAC), National Bank of Yemen, Kuraimi Islamic Microfinance Bank, Yemen Kuwait Bank, Yemen Commercial Bank.

For each bank, we retrieve the following data with annual frequency: Total Capital Ratio, other interest revenue, Risk-weighted Assets, stock of government securities, total assets, total liabilities, and total equity through the Fitch Connect database. Next, we augment this dataset with Yemen's minimum capital requirement based on Central Bank of Yemen regulations[71]. We calculate Total Regulatory Capital at *t=1* as follows:

$$\begin{gathered} \textit{Total Regulatory Capital } (TRC)t^{1} = \textit{Total Regulatory Capital } (TRC)\ t^{0} - \\ \Delta\ \textit{Revenue from Interest Payments on Government Securities Holding } t^{0} \end{gathered}$$

Where the change in public debt in each scenario is the ratio of decrease in interest rate on government securities from the current level of 15%. With maintaining the assumption of not change to RWA, we feed these equations into the capital to assets ratio, we obtain the following:

$$\textit{Captial Adequacy Ratio } t^{1} = \frac{TRC\ t^{0} - (\Delta * \textit{Revenue from Interest on Government Securities Holdings } t^{0})}{RWA\ t^{1}}$$

71 Sana'a, Circular No. (3) of 1996 on the Minimum Ratio of Capital to Weighted Risk Assets (Capital Adequacy) (2019).

Annex II.
The Finance Gap

The IFC SME Finance Forum[72] has developed a methodology to estimate the private sector finance gap across the world. It consists in estimating companies' potential demand for credit and comparing it to the existing supply of credit in any given economy (equation below). The following section explains the methodology in detail and the modifications the team has adopted to compute finance gap estimates for Yemen.

$$\text{Finance Gap} = \text{Potential Demand for Credit} - \text{Existing Supply}$$

THE EXISTING SUPPLY OF CREDIT

The Financial Access Survey of the IMF[73] contains statistics about outstanding loan portfolios of almost all of the financial institutions around the world. The IFC leverages this database to retrieve the existing supply of credit *to companies* around the world. For countries where this data point is not available, including Yemen, the IFC extrapolates the existing supply of credit using a cross-country regression based on several features such as macro indicators, banking sector characteristics, and SME-specific indicators at the country level.

More precisely, these indicators are the number of MSMEs as a percentage of the total number of companies, the share of MSMEs with access to external financing, the MSME lending volume as a percentage of the total lending (sourced from the World Bank Enterprise Survey), population, GDP, a dummy variable to indicate whether the country is fragile or conflict-affected, the lending interest rate (sourced from the World Bank's World Development Indicators), the Z score, the Lerner Index (which are respectively banking sector stability and competition variables from the World Bank's Global Financial Development Database), credit bureaus movable collateral registry dummies, contract enforcement, and credit access distance to frontier (sourced from the Doing Business indicators). For country c, the estimating equation writes:

$$\begin{aligned}\text{Existing Supply of Credit}_c = {} & \Delta\ \text{MSME share of companies}_c + \beta\ \text{MSME with external funding}_c \\ & + \gamma\ \text{MSME share of lending} + \delta\ \text{Population}_c + \theta\ \text{GDP}_c \\ & + \vartheta\ \text{Fragile or Conflict}_c + \mu\ \text{Lending interest rate}_c + \pi\ \text{Z score}_c \\ & + \rho\ \text{Lerner index}_c + \sigma\ \text{Movable collateral registry}_c + \tau\ \text{Contract enforement}_c \\ & + \varphi\ \text{Credit access distance to frontier}_c + \varepsilon\end{aligned}$$

72 International Finance Corporation, *MSME Finance Gap: Assessment of The Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets* (2018) https://smefinanceforum.org/

73 International Monetary Fund, Financial Access Survey, https://data.imf.org/fas

The regression is fitted on the available data (67 countries). Then, the parameters (α, β, γ, δ, θ, ϑ, μ, π, ρ, σ, τ, φ) are used to estimate the supply of credit to companies in countries where the estimate is not available in the IMF database. Using this methodology, the IFC estimated the total supply of credit to SMEs in Yemen in 2013 at 1.7% of GDP. The latest estimate for Yemen is available as of 2013 because some variables (the number of MSMEs as a percentage of the total number of companies, the share of MSMEs with access to external financing, and the MSME lending volume as a percentage of the total lending) rely on variables of the World Bank Enterprise Survey which were last reported in the 2013 edition.

Although the IMF Financial Access Survey database does not include the supply of credit to companies for Yemen, the total supply of credit to the private sector (which includes credit to companies but also household mortgages among others) is accessible using the IMF's International Financial Statistics database along with data from the Central Bank of Yemen. Using the total supply of credit to the private sector as a macro-indicator instead of the supply of credit to companies has several advantages. First, it provides a quasi-certain limit to what the supply of credit to companies can be, whereas a fitted estimate from a regression comes with uncertainty. Second, the data is accessible beyond 2013.

The total supply of credit to the private sector is globally available in the IMF's International Financial Statistics database. The latest public data point for Yemen dates to 2013. Beyond this date, the analysis relies on data from the Central Bank of Yemen, in nominal Yemeni reals, which was divided by the nominal GDP. The Central Bank of Yemen reports credit from commercial banks only. Given the growing importance of the microfinance sector, the total outstanding loans of the top 10 microfinance institutions were also added, as they were gathered from the Yemen Microfinance Network data. As of 2013, the total credit to the private sector in Yemen stood at 6.0% of GDP (including 0.1% from microfinance institutions). The latest figure available from 2021 indicates 2.7% (including 0.25% from microfinance institutions).

THE POTENTIAL DEMAND FOR CREDIT

In the IFC's methodology, the potential demand for credit is estimated using a counterfactual scenario where companies' access to credit is fully met. This ideal scenario is built based on companies' debt levels in the best-rated countries according to the "Getting Credit" module of the World Bank's *Doing Business Indicators*, assuming that companies' demand for credit in these countries is fully met. The countries included in this list are Australia, Canada, Denmark, Germany, Ireland, Israel, New Zealand, Switzerland, the United Kingdom, and the United States.

Companies' debt level is considered to be proportional to their sales. Both debt levels and sales are available in the World Bank Enterprise survey (up to 2013 for Yemen). Given this assumption, the IFC's methodology computes target debt-to-sales ratios in the "ideal" economies listed above, then multiplies these ratios to companies' sales in other economies to derive a potential demand for debt in the scenario where these companies were located in the best-rated countries in terms of access to credit. The IFC computes different debt-to-sales ratios depending on companies' sector, maturity, and size to reflect companies' varying financial needs (Figure 98). For each country, the average debt-to-sales ratio is aggregated at the sector, maturity, and size level using Enterprise Survey data. Country sector, maturity, and size-specific averages are then further aggregated to arrive at average debt-to-sales data, by sector, maturity, and size.

The estimating calculations are outlined below, where *i* denotes a company in sector *s*, with size *z*, maturity *m*, representing weight w_i in the Enterprise Survey. Based on this methodology, the IFC estimated the potential demand for credit in Yemen at 53% of GDP in 2013[74].

$$\text{Potential Demand for Credit}_{s,z,m} = \sum_i \text{sales}_i \times w_i \times \left(\text{“ideal”} \frac{\text{debt}}{\text{sales}} \right)_{s,z,m}$$

$$\text{Potential Demand for Credit}_{s,z,m} = \sum_{s,z,m} \text{Potential Demand for Credit}_{s,z,m}$$

This paper replicates the same methodology with important departures as for the benchmark economies. Given Yemen's context, it seems unrealistic to compare it to the world's most advanced economies. Instead, Yemen should be compared to more realistic comparators in its region and income group. More specifically, this paper shows 4 different estimates of Yemeni companies' potential demand for credit using: low-income countries' average debt-to-sales ratios, MENA average debt-to-sales ratios as well as debt-to-sales ratios from the top 5 low-income countries (Rwanda, Malawi, Niger, Togo, and Uganda) and MENA's top 5 countries (Jordan, United Arab Emirates, Israel, Egypt, and Bahrain) in terms of Getting Credit score.

Using these benchmarks, the resulting estimates of the potential demand for credit range between 20% and 28% (Table 4). By construction, these estimates are lower than the IFC's since Yemen is compared to economies where companies' access to credit is more difficult than in the world's top 10 economies. One limitation that this adaptation does not overcome however is that all the estimates are valid as of 2013. Indeed, the latest available World Bank Enterprise survey for which Yemeni companies' sales are reported dates from 2013.

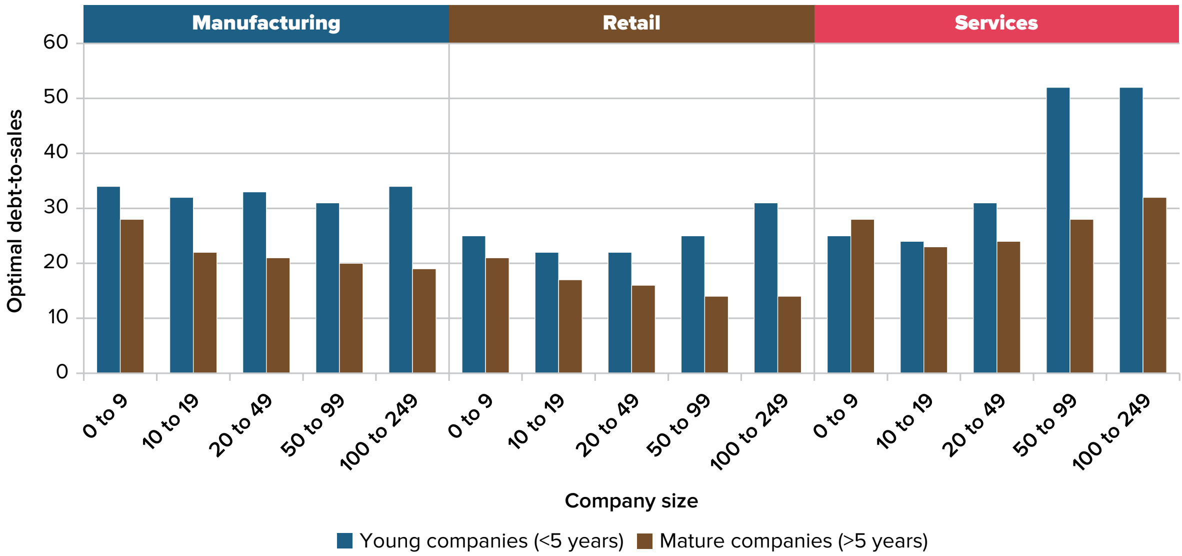
74 2013 being the latest year for which companies' debt and sales levels were reported in the World Bank Enterprise Survey.

FINANCE GAP SUMMARY

This paper adapts the IFC's methodology in two important ways. First, the total credit to the private sector, from CBY's data, is used as an upper bound estimate of the existing supply of credit, instead of relying on the output of a regression. Second, the potential demand for credit is estimated based on regional and income group peers.

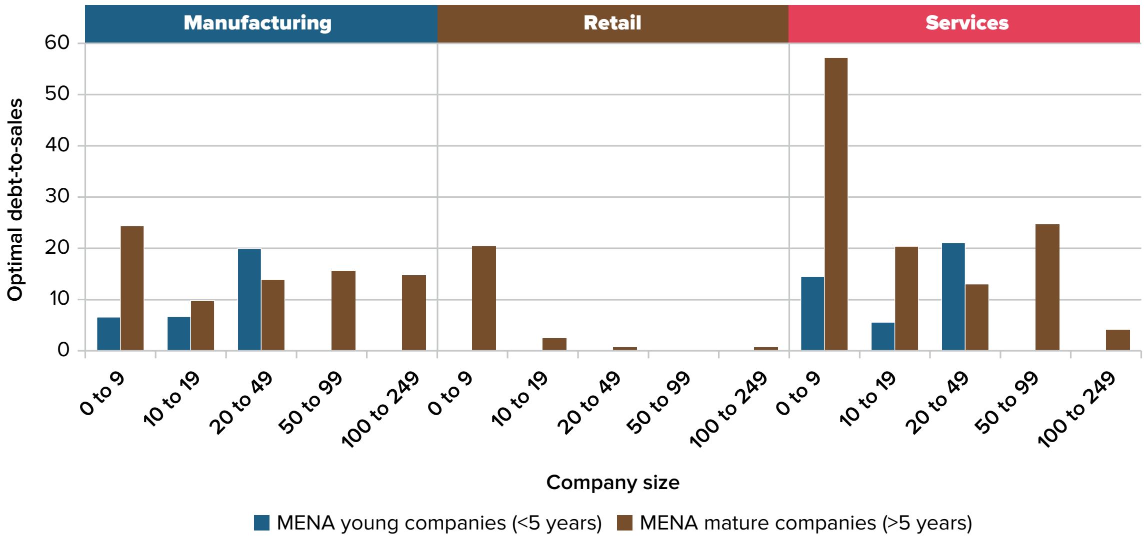
As of 2013, this paper's revised estimation of the financial gap in Yemen stands between 15% and 22% of GDP. More recent estimations of the potential demand for credit were not possible given the available data, but the potential supply of credit decreased from 6.0% to 2.7% of GDP as of 2021.

Figure 98 Companies' Optimal Debt-to-sales Ratio Per Sector, Size, and Maturity Based on Top 10 Economies



Source: Authors' calculation based on World Bank Enterprise Surveys and MSME Finance GAP.

Figure 99 Companies' Optimal Debt-to-sales Ratio Per Sector, Size, and Maturity Based on Top 5 Economies in MENA in Terms of Access to Credit



Source: Authors' calculation based on World Bank Enterprise Surveys and MSME Finance GAP.

Annex III.

The 2022 Yemen Enterprise Survey – Access to Finance

INTRODUCTION

The enterprise survey was collected towards the end of 2022 and consists of 328 formal and 217 informal enterprises or businesses. The objective of this data collection exercise was to further understand the business environment, including challenges and opportunities for growth. Face-to-face interviews were conducted with the owner or manager of the enterprise, or the person who is knowledgeable on the finances and hiring practices of the enterprise. Data was collected in September 2022.

In consultation with local partners, seven target governorates were selected as the focus of this survey due to their economic significance and private sector dynamism. These are Aden, Amanat Al Asimah, Al Hudaydah, Taizz, Hadramaut, Marib, and Ibb. The sampling approach differs for the formal and informal enterprises as outlined below:

a) Formal sector

The status of formality of the enterprise in Yemen was determined according to the legal status of registration by the authorities. Enterprises were sampled from three sources: the 2018 Rapid Assessment of Businesses (Sofan 2019), the Ministry of Interior, and/or the Chamber of Commerce of each governorate. From these sources, our local partners developed a sampling frame of 4,038 enterprises. The sampling frame was reviewed to remove duplications, and enterprises were coded according to ISIC 1-digit classifications.

To ensure that the resulting dataset captured a diverse range of characteristics, a matrix of three strata was considered: size, governorate, and main activity (manufacturing, trade and services). Enterprises were randomly selected within these strata, maintaining the same proportions as the overall sample while reaching a total of 328 enterprises with additional back-up sample in case of replacement.

Before fieldwork started, the team initiated a preparation phase were sampled firms were called over the phone and larger firms were sent letters describing the survey. This was to verify if the sampled enterprises could not be located, had closed, or declined participation. Out of 500 enterprises, 170 were determined as unreachable, and replacements were made with a randomly selected enterprise from the same strata.

b) Informal sector

All enterprises that are not legally registered nor have any type of licensing from the authorities are identified as informal enterprises. As informal enterprises are not registered, sampling from an existing list was not possible. Instead, in consultation with the local partner, 30 types of activities were identified as the main operating fields for informal enterprises. The survey team visited the main market areas within each governorate (2-4 per governorate), and after scanning the area and speaking with key interlocuters, a list of informal businesses was developed. Once enough businesses for each of the main economic activities were identified, the team randomly sampled businesses per economic activity and interviewed the first business owner that consented.

A quota of enterprises for each governorate, as well as the main activities within each governorate, was determined ahead of time, and fieldworkers attempted to reach this quota as much as possible.

Due to the diverging nature of formal and informal enterprises, two different instruments were developed to capture their different characteristics, challenges, and opportunities.

c) Qualitative interviews

In this section we provide some qualitative evidence to contextualize and explain the quantitative results. Firstly, both the formal and informal enterprise survey questionnaires included open-ended questions related to the impact of the conflict. Additionally, in-depth interviews were conducted with 20 closed businesses with the objective of understanding the reasons for closure and the challenges faced in the lead up to the business closure. When attempting to interview the sampled formal enterprises, 37 were found to be closed. The survey team attempted to interview these closed enterprises, if they were able to contact the previous owner, while maintaining a geographical balance across the seven governorates. A total of 20 owners of closed businesses were successfully interviewed.

BACKGROUND INFORMATION

Out of the 328 formal firms and 217 informal firms, most were in Amanat al Asimah and in areas under Houthi control (Figure 100). 13 out of the total businesses were in rural areas, eight from the formal sector and five from the informal sector. However, this likely reflects the sampling approach described in the previous section.

Figure 100 Governorate of the Interviewed Firms

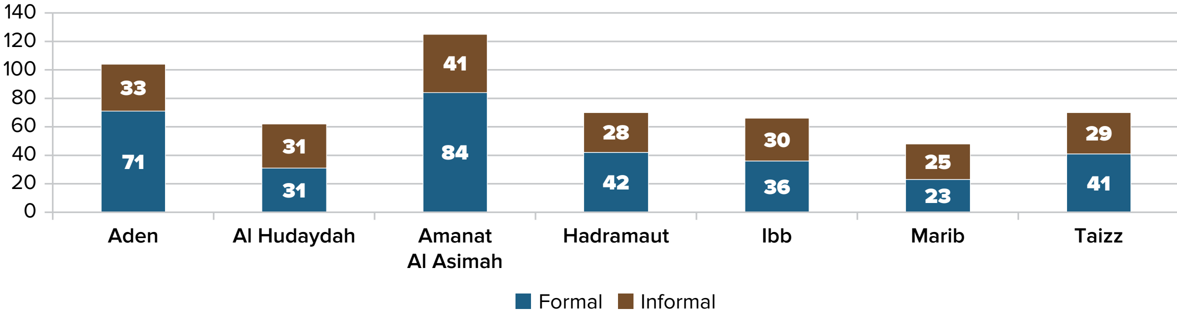
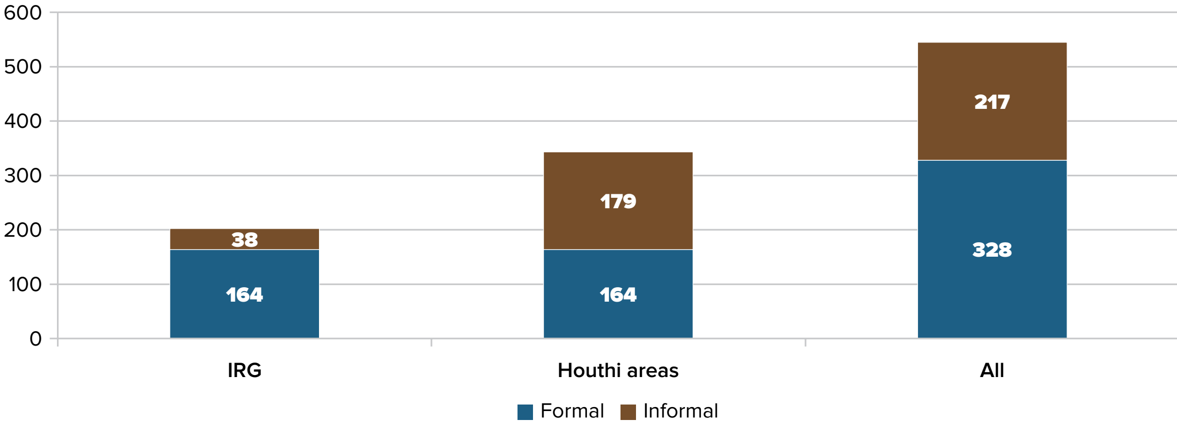
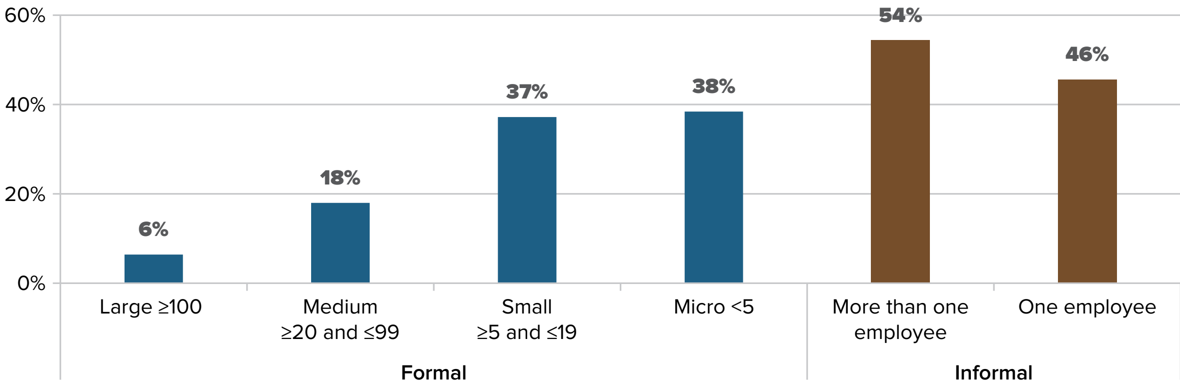


Figure 101 Location of the Interviewed Firms



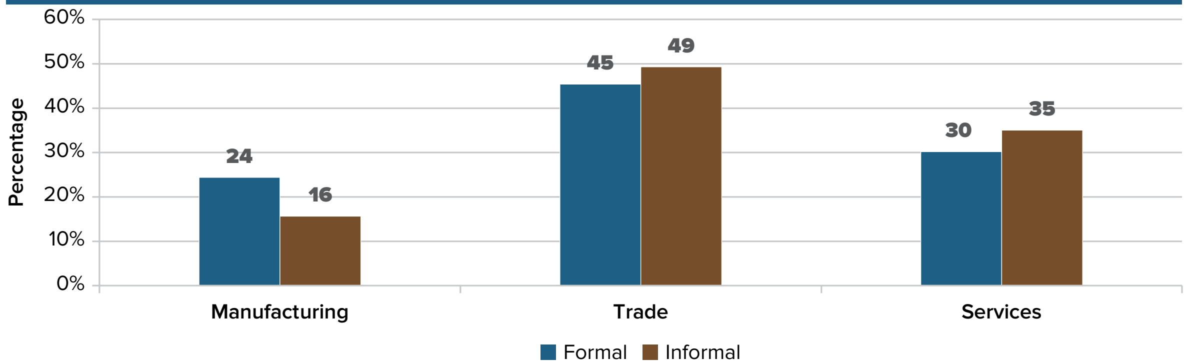
Most formal businesses were small in size, with around 76 percent being small or micro enterprises, i.e. less than 20 employees. In the case of the informal sector, just under half had one employee, while the other half usually had two employees.

Figure 102 Size of Formal and Informal Businesses



The main economic activity of most firms in the formal and informal sectors is trade, followed by services and then manufacturing.

Figure 103 Main Economic Activity



ACCESS TO FINANCE OF FORMAL ENTERPRISES

The low level of financial inclusion is due to multiple factors that can be related to poor infrastructure of the financial systems as well as the low level of financial literacy among the Yemenis. The weak regulatory framework that governs the lender and borrower rights also contributes to the low trust in the financial system. Most of the population, estimated at 61%[75], live in rural areas while banks and financial institutions are in city centers which also add another layer of difficulty.

75 https://www.macrotrends.net/countries/YEM/yemen/rural-population

In the enterprise survey 2022. It was also noticeable that the proportion of establishments that do not have bank accounts is high around 42%. Around 191 out of 328 establishments, representing 58% of total sample of the formal sector reported that having bank accounts (either checking or saving), with IRG area noticeably has more establishments owning bank accounts than the Houthi controlled area, 63% compared to 54% respectively. That means that more of the third operates out of the banking systems.

Figure 104 Account Ownership

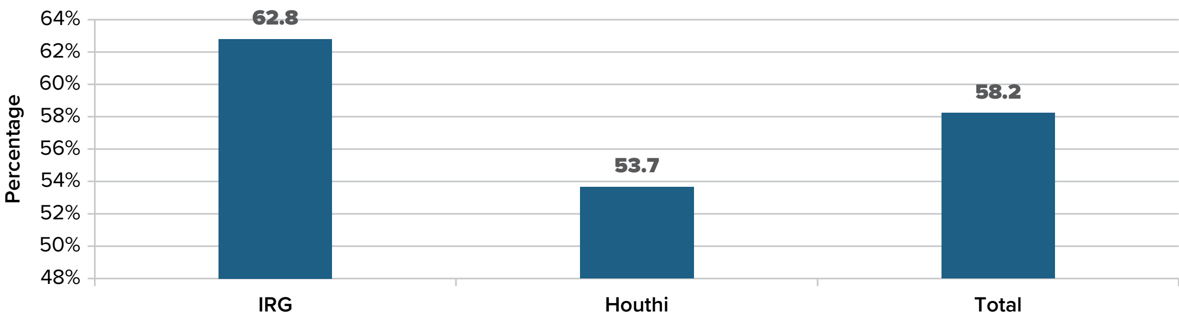
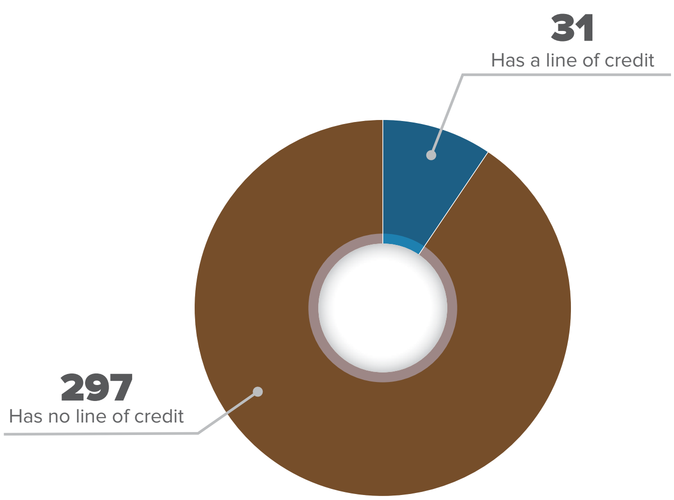


Figure 105 Number of Establishments With a Line of Credit



Small and micro size establishments represent the largest proportion of those who don't have bank accounts 31% and 57% respectively. Only 31 establishments of 328 said that they have a line of credit from financial or non-financial institutions, with IRG area having more establishments with a line of credit, around 21 establishments in IRG compared to 10 establishments in Houthi controlled areas. Most of these establishments that have loans said that they got it from private commercial banks (10 cases) or non- bank financial institutions (5 cases).

Table 6 Number of Loans, by Financial Institution

Type of financial institution granted this loan?	Freq.	Percent
Private commercial banks	10	55.56
State-owned banks or government agency	1	5.56
Non-bank financial institutions (ex: microfinance etc)	5	27.78
Others, non-financial institutions	2	11.11
Total	18	100

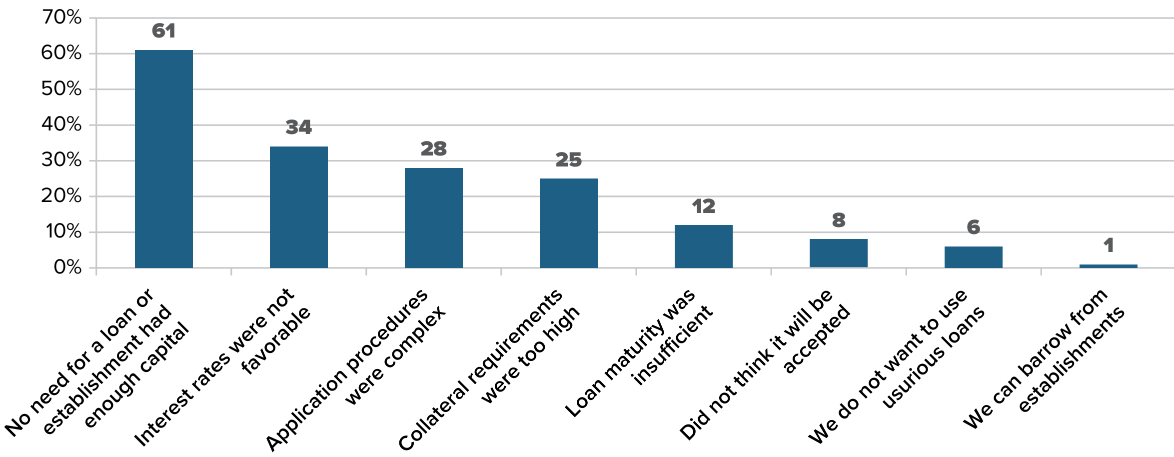
The types of collateral required mentioned by some respondents are very high in value that sometimes reaches more than 100% of total value of the loan such as a land or buildings deed under the ownership of the borrower, personal assets, or gold.

Table 7 Type of Collateral Required

Type of Collateral required	Freq.
Land, buildings under ownership of the establishment	7
Personal assets of owner (house, etc.)	2
Commercial guarantee	5
Gold	1
Total	15

When exploring the reasons for not applying for a loan, the top reason mentioned is that there is "no need for a loan". None of those who checked this reason rated "access to finance" as an obstacle at any level.

Figure 106 Reason for Not Applying for a Loan



There is also around 6% of sampled firms which refrained from taking loans for the religious belief that it is a usury transaction (which is prohibited in Islam). The combination of those two reasons are strong indication of the cultural constraints and weak financial literacy that might remain even if financing services improved, as they might refrain from seeking that service even if adequately facilitated. Around 69% believed that access to finance is a major obstacle to their operations (this ranking tabulated after excluding those that checked “no need for a loan”) when asking for the reasons of not applying. Among sixteen challenges listed, a mix conflict related challenges and pre conflict related challenges, for respondents to rank, access to fiancé remained on top of the main challenges.

Figure 107 Degree by Which Access to Finance is an Obstacle

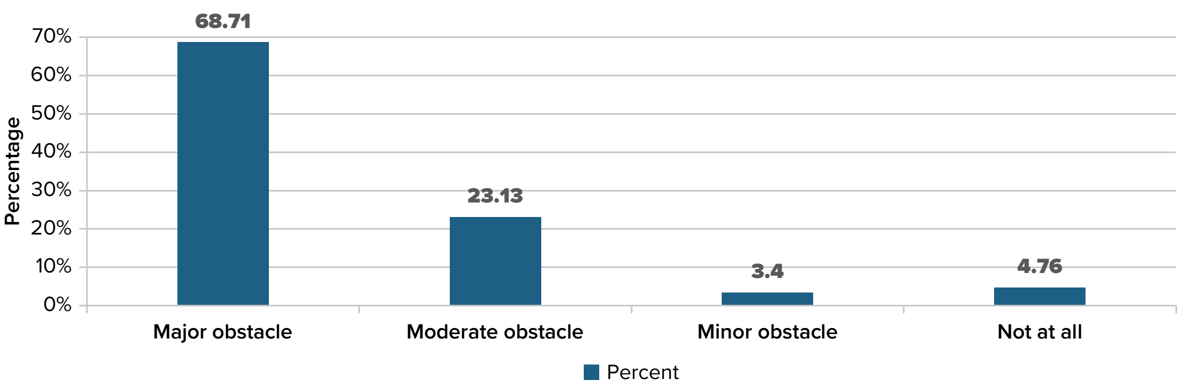
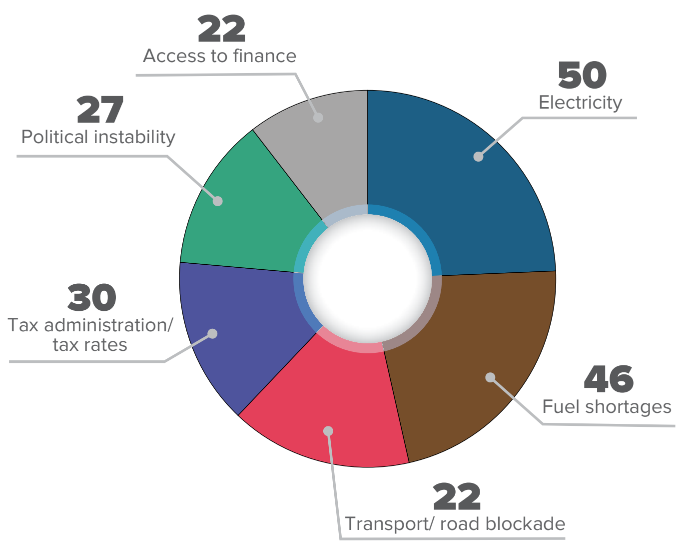


Table 8 List of Challenges to the Establishment

Challenges to your Establishment	
Electricity	50%
Fuel shortages	46%
Transport/road blockade	32%
Tax administration/tax rates	30%
Political instability	27%
Access to finance	22%
Siege	18%
Practices of competitors in informal sector	17%
Labor regulations	15%
Customs and trade regulation	14%
Corruption	10%
Access to land	7%
Business licensing and permits	6%
Inadequately educated workers	5%
Courts	1%
Crime, theft, disorder	0%

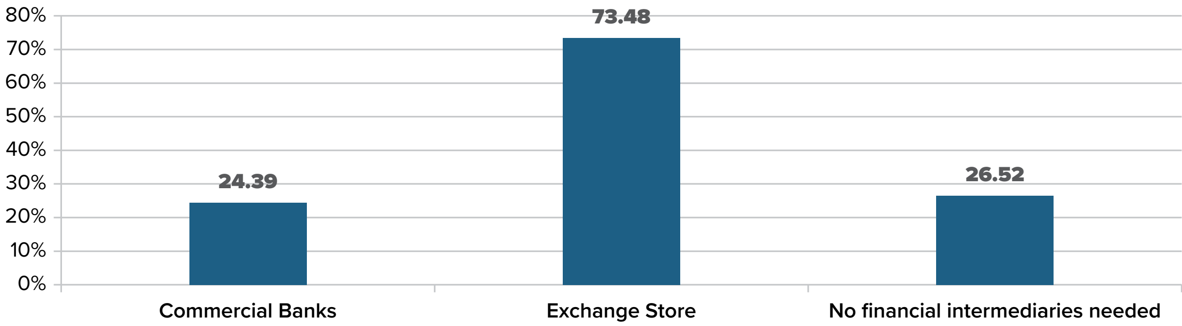
Figure 108 Challenges in Business Environment



Financial Intermediary for Establishment

After increasing the de-risking measures on the Yemeni banks as a direct impact of conflict, followed by the fragmentation of the financial system when the Central Bank YBC was divided into Sana'a CBY and Aden CBY[76], the role of money exchangers rose drastically as the main intermediary for many commercial and noncommercial transactions. In a multiple option question of what the establishments' intermediaries are, around 73% of respondents reported that the money exchange companies are their most used intermediary channel while commercial banks was checked by 24%. That should not be viewed as ranking but rather reflect the most used (common) financial intermediary. However, it is worth noticing that almost a quarter of the respondents said that no financial intermediaries are needed.

Figure 109 Financial Intermediaries Used



Sources of Working Capital

Most of the establishments reported that they rely on their internal funds or retained earnings to finance their investments. The bar chart below shows 69% (on average) spent from internal funds and retained earnings while second source of funding 17% (on average) comes as loans from informal channels such as money lenders, friends, and relatives. When comparing these numbers by control area between IRG and Houthi, there is not great difference except that establishment in Houthi controlled areas rely more on money lenders and friends to get funds for their businesses.

76 ACAPS 2022, "**THE YEMENI FINANCIAL SECTOR: CHALLENGES AND OPPORTUNITIES FOR RECOVERY**"

Figure 110 Sources of Working Capital

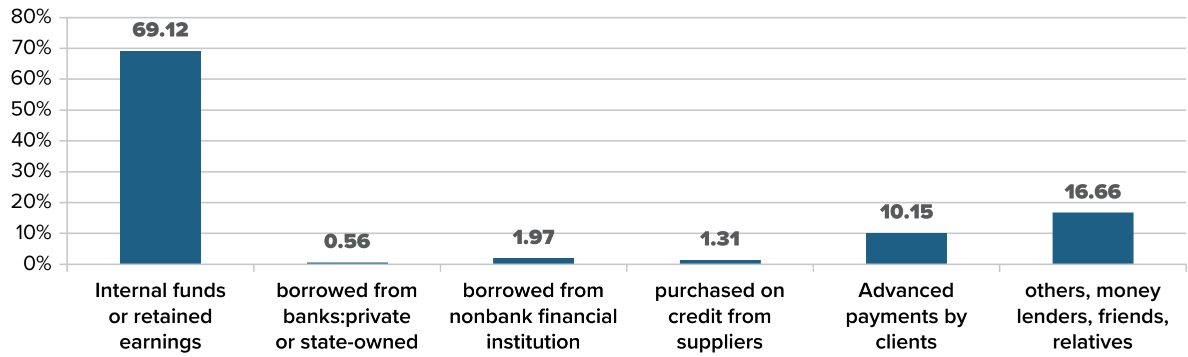
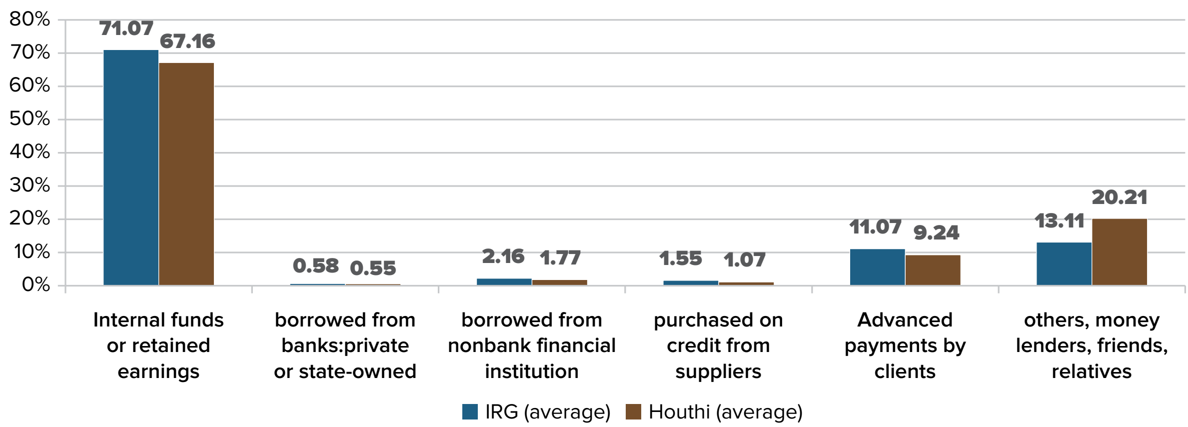


Figure 111 Sources of Working Capital



Over half of the establishments of the total sample reported losses due to currency fluctuation. It is noticeable that the affect was worse for the establishments located in the IRG areas, with 74% compared to 38% in Houthi areas.

Figure 112 Effects of Currency Fluctuations

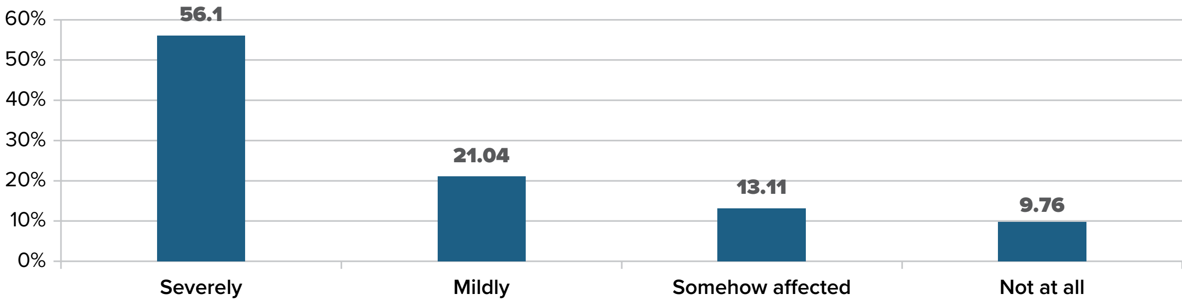
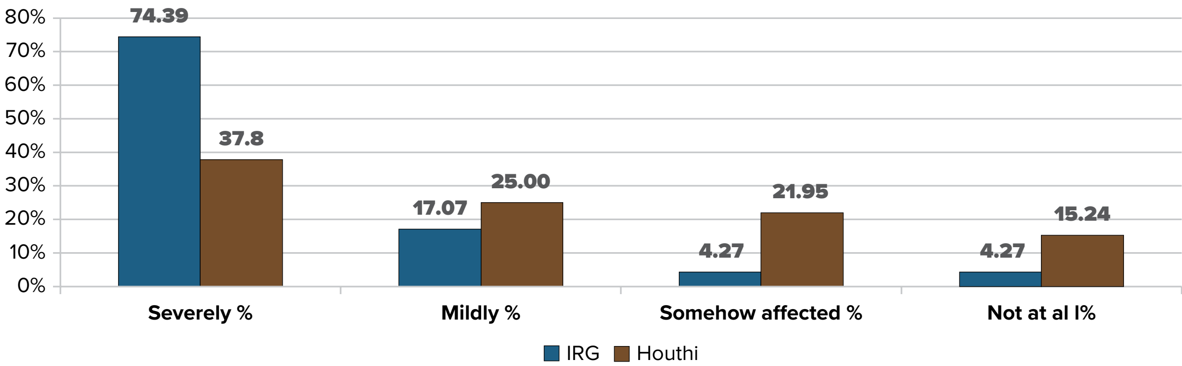


Figure 113 Effects of Currency Fluctuations



Comparison between current and Pre conflict 2015

The establishments were asked to rate several factors in a scale from (0-5), with zero not an obstacle and 5 a major obstacle. The obstacles were currency instability, inflation, Letters of Credit, tax collection and Zakat. These rating shows some factors were rated not an obstacle at all but became a financial burden on the establishments such as currency instability, inflation, and tax collection.

Table 9 Obstacle Comparison Pre- and Post-Conflict

Obstacle	Currency Instability		Inflation		Zakkat Collection	
	Current	Pre 2015	Current	Pre 2015	Current	Pre 2015
Not an obstacle	5.18	38.46	13.41	35.9	38.11	61.54
A simple obstacle	5.18	36.75	5.18	35.47	10.06	24.36
A moderate obstacle	12.8	17.52	19.51	20.94	21.34	10.68
A big obstacle	42.68	5.56	46.34	6.84	22.26	3.42
A major obstacle	34.15	1.71	15.55	0.85	8.23	0%
Total	100	100	100	100	100	100

Obstacle	Lack of Letters of Credit		Tax Collection	
	Current	Pre 2015	Current	Pre 2015
Not an obstacle	62.5	71.79	20.12	39.32
A simple obstacle	3.66	13.25	7.93	22.65
A moderate obstacle	8.84	9.83	18.9	27.78
A big obstacle	17.07	3.42	35.67	9.4
A major obstacle	7.93	1.71	17.38	0.85
Total	100	100	100	100

The increased concern of the above factors will deepen the preexistent of the mistrust in the financial systems and might also encourage establishments to resort to informal saving strategies and limit their opportunities for growth and expansion.

Access to Finance of informal Enterprises

Only 18% of total informal establishments interviewed said they have bank accounts, and only 5 establishments of which said that they have a different bank account for their business.

Figure 114 Ownership of Bank Account

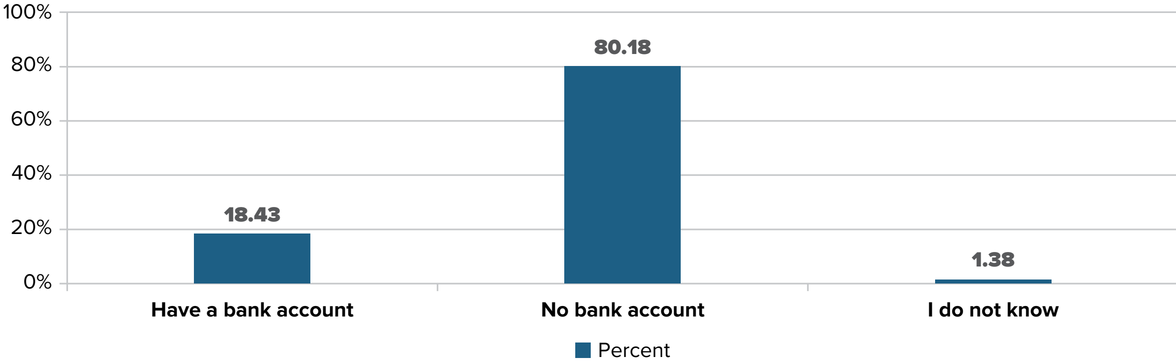
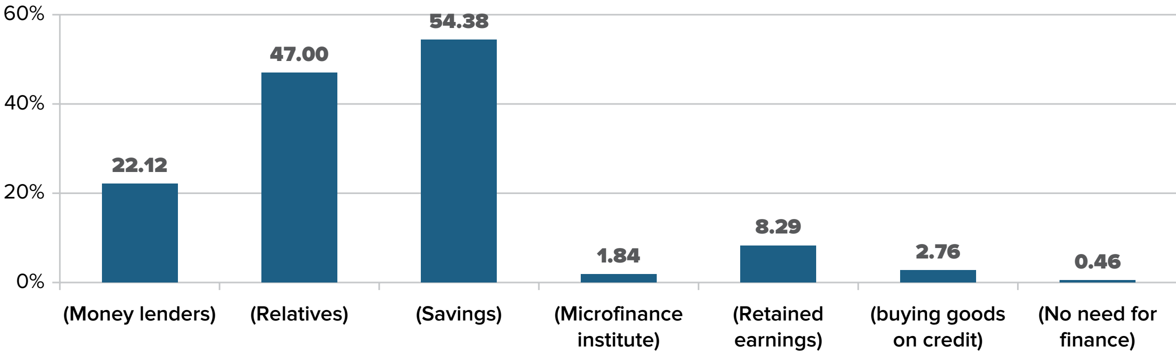


Figure 115 Owner has Loan or Debt Related to Business

Using personal savings scored the highest in the informal sector with 54.38% saying that their main source of financing for their business activities. Loans from relatives or money lenders rated second and third which reflect the informal trust network among the Yemenis.

Figure 116 Main Sources of Financing for the Business



Fifty percent of the informal establishments interviewed said they have a loan or a debt. Predicting from the bar chart above, their loans are probably from informal lenders such as friends and lenders as only 2% of the respondents said they have loans from a microfinance institute.

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP