## I. Introduction and Context

### Country Context

Yemen represents the largest development challenge as an International Development Association (IDA) country in a rich region, and is classified as the poorest country in the Middle East and North Africa Region (MENA). During the last few years, Yemen’s economy faced a range of successive crises and urgent challenges leading to the aggravation of poverty and food insecurity. These existing challenges were further aggravated following the Arab Spring that brought to the forefront, some key challenges such as; the need to create job opportunities, a level playing field, as well as a fair and transparent political and economic environment. The recent political and economic developments in the region have enhanced prospects for change and created an increased appetite for reforms.

The Republic of Yemen in 2011 experienced mass protests, violent clashes, and armed conflict...
resulted in the election of a new President and the formation of a transitional government. The poor performance of the government’s development strategy in the decades following the national reunification of 1990, driven by weak institutions and poor governance, triggered increasing social and political tension. Exacerbated by deteriorating economic conditions, these tensions culminated in 2011 with mass protests, occurring in the context of the Arab Spring. The protestors demanded better governance, representation and economic opportunities, and the protests ended up with the transition agreement brokered by the Gulf Cooperation Council (GCC). In early December 2011, a transitional government was formed, which was mandated to steer the process of constitutional changes, reform the military apparatus, manage economic recovery, and prepare for the next general election in early 2014. The transition government is working to stabilize the country within an overall complex and difficult security and economic environment.

The conflict situation caused significant disruptions in the supply and production chains and this resulted in the contraction of the economy and higher unemployment. Economic activity contracted by 10.5 percent in 2011, and is estimated to contract further by less than 1 percent in 2012, leading to higher unemployment with unofficial estimates suggesting that up to one million workers may have lost their jobs in 2011. The reduction in fuel availability, particularly diesel, further aggravated shortages in electricity and water supplies. The repeated sabotaging of the pipelines in the Marib and Ras Issa areas and continued road insecurity have led to a sharp decrease in crude oil production by about 40 percent in 2011, and a similar loss expected in 2012. The agricultural, service and industrial sectors faced significant cost increases for inputs such as irrigation, transportation and marketing, ultimately reducing production and exports.

Poverty, which was already increasing prior to the crisis, is estimated to have risen further from 42 percent of the population in 2009 to 54.5 percent in 2012. Poverty is particularly high in rural areas, which are home to about 73 percent of the population and 84 percent of the poor. Urban poverty is concentrated primarily in Sana’a and Aden and is particularly extreme in Hodeidah, Taiz, and Mukalla. An estimated 806,586 people are now considered most vulnerable due to current and previous conflicts in Yemen. At the same time, social service delivery has been dramatically affected across Yemen, leaving the vulnerability of a large part of the population unaddressed, and contributing to loss of livelihoods. The dramatic and immediate negative impact of the 2011 crisis on individuals’ health and wellbeing can be directly traced to Yemen’s chronic under-development, particularly with regard to basic social services.

Fiscal policies since 2011 were geared to contain the deficit. Revenues have declined for several reasons, including the halt in oil production during the 13 month stoppage of the Marib-Hodeidah oil pipeline, and the depressed economic activity, and the resistance of many to paying taxes during this time of political uncertainties. The 2012 fiscal deficit is projected to reach about 11 percent of the Gross Domestic Product (GDP) excluding grants (5.5 percent of GDP including grants). The public expenditures program in 2012 is struggling with numerous risks, domestic (security) and international (food prices, oil prices). While capital expenditures are still far too low to generate recovery (estimated around 3 percent of GDP), the Government is hoping to keep the expenditures for petroleum subsidies constant in 2012. Raising revenues is politically impossible; large oil grants from Saudi Arabia (amounting to almost 6 percent of GDP) have been keeping the Government financially afloat in 2012, especially during the first half of the year. In addition, critical social expenditures are often competing with other expenditures (salaries and security).

The Yemeni Riyal exchange rate came under high pressures in 2011 leading the Central Bank of Yemen (CBY) to adopt a number of policies and measures that included the reduction of its foreign reserves to respond to the basic commodities imports bill. Despite the stabilization of the official exchange rate of the Yemeni Riyal at about 213.85 YR/USD (this rate was used by CBY to finance basic commodities and the Ministry of Finance transactions), the parallel market rate ranged between
235–240 YR/USD contributing to the rise of imports prices and higher inflation. However, since early 2012, the exchange rate has stabilized at around 214 YR/USD. The real exchange rate has shown a gradual and nonlinear appreciation of 166 percent over the last two decades, reducing the competitiveness of the non-hydrocarbon sector and putting the small export sector at an increasing disadvantage. While this outcome has helped improve consumer welfare, especially through lower or more stable food prices, it was achieved at the expense of job creation and the productive sectors. Inflation is on a declining path, and is projected to drop to 11 percent at year end-2012.

Monetary sector was significantly affected by the uncertainties of the 2011 crisis. The banking system balance sheet contracted due to the large deposit withdrawals of both local and foreign currency deposits. Overall, monetary growth was flat as the surge in domestic assets was mainly caused by the increased CBY overdraft to finance the budget deficit, coupled by another surge in the declining of net foreign assets. Credit to the private sector fell by 17 percent due to the weakened credit demand as well as banks’ reluctance to lend during the crisis. The scarcity of foreign reserves has curtailed trade financing, a primary banking service, and has put a dent in financial institution operations. Although the banking service sector is small in Yemen (assets total about 40 percent of GDP), the near standstill afflicting the sector has hampered normal economic operations.

**Sectoral and Institutional Context**

The financial system in Yemen is dominated by the banking sector as is the case in most developing countries. There are 18 banks operating in Yemen, four of which are state-owned banks (Cooperative and Agricultural Credit Bank, National Bank of Yemen, Yemen Bank for Reconstruction and Development, and Housing Bank), four are Islamic banks, four are conventional banks and two are specialized microfinance banks. The banking system is small, as assets are about 40 percent of GDP, much less than comparable countries. Yemen is still a largely cash economy with local currency holdings nearly twice the average ratio for 17 comparator countries.

CBY has established an Islamic Sukuk unit for Islamic financing that is compliant with Shari’ah principles and the legal environment. The CBY unit made its first successful Sukuk issuance in 2011 and has continued to do so in 2012. The government has identified the issuance of Sukuk instrument as a priority to improve access to financing sources, primarily from the local Islamic banks.

The financial sector in Yemen, which can play an important role in economic recovery and growth, is considered one of the weakest in the MENA region. The system suffers from an inadequate supervisory and regulatory framework as well as a weak financial institutional infrastructure (payments, credit information). The financial institutions also lack competent and qualified staff that are familiar with the modern financial services and products. Although CBY has developed regulatory oversight of banks, through such measures as the reserve requirement, the capital adequacy requirements, and the minimum capital requirement, no significant changes have been observed due to its weak implementation. Few local banks are still under capitalized with non-performing loans (NPLs), and high related party lending.

Financial intermediation in Yemen is very low. In addition to the weaknesses mentioned above, a main constraint to increased financial intermediation is the weak legal and judicial environment, in which creditors’ rights are not enforced. Intermediation between depositors and private sector credits, are an important factor in growth, is less than 10 percent of GDP, again much lower than comparators even as a percentage of the system. The vast majority of Yemen’s population does not use formal financial services. Regarding bank deposits, only 800,000 people have an account with a formal financial institution. The number of deposits accounts per 1000 people in Yemen is only about 35, the lowest country globally.
Outside the banking sector, key supporting institutions and financial markets are either nonexistent or play a very limited role. Non-bank financial institutions (NBFIs), such as insurance companies, moneychangers and pension funds play a marginal role. Leasing is beginning, but needs appropriate tax treatment and a registry for leased properties. On microfinance, in October 2010 the Governor of the CBY approved the Microfinance Banking by-Law 15 of 2009, which was ratified by the Parliament in April 2009. This measure is meant to widen credit and savings options for smaller enterprises as well as for lower income households, in urban as well as in rural areas, and in general, widen the market for financial services in Yemen.

The Yemeni authorities, specifically CBY have undertaken various legal reforms to enhance the performance of the financial system, and its role in intermediation. Various legal reforms took place over the past period (Box 2). Moreover, the authorities have recently responded well to the events the 2011 crisis through the provision of financial services as needed, and the issuance of circulars that generally addressed specific, crisis-related issues and were time-bound. In an attempt to strengthen confidence in the system after the revolution started, CBY took the following measures: (i) imposed no limitations on withdrawals in any currency; (ii) streamlined the process of liquidity provision in the banking system, to address the deposit-run rush immediately after the upheaval; (iii) prevented approvals for money exchangers to export cash in foreign currency out of the country, limiting this role to banks; (iv) enhanced communications with the banks and the financial community, as CBY held regular meetings at least once a week with banks to discuss latest developments; (v) forced all banks in January 2011 to issue emergency plans to guarantee business continuity; and (vi) reduced the legal reserve requirement in foreign currency from 20 percent to 10 percent in the first quarter of 2011, which freed US$ 300 million into the system, enhancing liquidity further. As a result, confidence in the banking system has been regained post-revolution, evident in the increase in banking system’s deposits reaching YR1,449 billion in March 2012. Nevertheless, the financial system in Yemen faces various challenges. The system continues to suffer from an inadequate regulator yand supervisory framework, as well as a weak institutional infrastructure. Banking supervision is characterized by regulatory forbearance that undermines the creation of a sound and sustainable banking system. The weak enforcement of prudential regulations, especially those with respect to related party lending, concentration limits, and insufficiency of provisions, can only increase system risks. There has been progress made in the implementation of regulations on loan classification and provisioning, however, it is worth noting that not all banks operating in Yemen are in compliance with those regulations. Enforcement of regulatory requirements for the establishment of comprehensive credit granting policies and procedures and credit risk management systems has been weak. As a consequence, some banks are running their business without the minimum capital adequacy requirement and CBY has not enforced corrective action for those banks in non-compliance.

Financial Infrastructure is the underlying foundation of a country’s financial system. It is comprised of all institutions, information, technologies, rules and standards which enable financial intermediation. The quality of a country’s financial infrastructure determines the efficiency of intermediation, the ability of lenders to evaluate risk and of borrowers to obtain credit, insurance and other financial products at competitive terms. A sound credit information system and a modern National Payments System (NPS), and a central bank core banking system are three important pillars of the financial infrastructure in a country. The quality of NPS determines the stability of the overall economy, the efficiency and reliability of intermediation, the potential for the private sector to innovate and provide new services to consumers. In the case of credit reporting, a robust information system reduces information asymmetries between lenders and borrowers, permitting more efficient allocation of financial credit. The core banking system would improve CBY capabilities in performing its central bank core functions and enhance significantly the oversight of
the banking sector. But for working properly, that core banking system should be embedded in a state of the art banking supervision framework and governance.

The NPS in Yemen is very weak and lacks the core payment systems infrastructure. The legal and regulatory framework for payment systems is evolving and currently clearly provides for the oversight authority of the CBY over the NPS and also for it to implement and operate the required payment systems infrastructure. Cheques and SWIFT based payment orders are the primary means for large value payments. Cheques and the SWIFT based payment orders are processed manually and thus gives rise to inefficiencies and risks. Introduction of an RTGS system would address these inefficiencies and risks. Apart from the cheques the non-cash payment instrument available for retail payments is payment cards. The payment cards comprise of cards that are issued in association with international payment networks like Visa and Mastercard and those that are proprietary cards usable only in the payment infrastructure of the specific institution. Though the payment cards infrastructure is growing rapidly the usage levels at an overall level remain low. As the card payments infrastructure development is progressing with private sector investment, the CBY can adopt an approach of limiting its role to playing a catalyst role in bringing about efficiencies and interoperability.

Introduction of an automated clearing house would bring a measure of automation to the processing of cheques and also allow introduction of credit transfer and direct debit thereby providing additional electronic payment instruments. The banks in Yemen had introduced mobile banking and were exploring usage of mobile phone based payment services to expand their distribution reach. The banks have however stopped many of these initiatives. The implementation of the core NPS infrastructure would bring about efficiencies in the introduction of innovative payment mechanisms like mobile payments. The securities market in Yemen is nascent and comprises of only government securities. The securities are currently issued in paper form and there is virtually no secondary market. The Government has commenced a program of issuing sukuk securities and the current arrangements for securities settlement would prove inadequate in the near term. A central securities depository (CSD) would enable recording of the securities ownership in book entry form and also allow for efficient transfers resulting from secondary market transactions and also enable usage of eligible securities as collateral in the RTGS system.

In addition to the core payment systems infrastructure the other aspects required for a comprehensive NPS also need to be developed in parallel, these include legal and regulatory reforms. In this regard development of a national payment systems development strategy would provide the overall framework that can be used to guide the reforms in those areas. The key specific aspects that need to be taken into account as part of the legal and regulatory reforms are: (i) the need for strengthening the legal and regulatory framework to provide for legal certainty for specific operational procedures used in payment systems like netting; (ii) protect the finality of payment transactions and rights over collateral from actions resulting from bankruptcy and insolvency proceedings; (iii) recognition of dematerialization/immobilization of securities; and, (iv) validity and enforceability of system rules.

Although, the public credit registry (PCR) was revamped in 2009, it is weak, outdated, and has many issues that need to be resolved in order to have a robust system. For one thing, it provides only an aggregate snapshot of the debtor’s current position, without any payment history, and arrears, does not include logic checks to ensure data quality, and has a very weak matching algorithm. In addition, it does not have a back-up nor any disaster recovery plans, and does not have the required maintenance support and lacks the necessary key documentation. Data is only submitted by the banking sector (which is done in an inconsistent and incomplete manner), while non-banking financial institutions (e.g. MFIs) do not submit data. Banks are not inquiring the credit registry consistently despite regulations by CBY mandating banks to inquire the registry before
granting credit.
Credit information sharing in Yemen is regulated through several laws (Central Bank Law, Banking Law, Access to Information Law) and circulars issued by CBY. The combination of these laws and regulations cover important credit information sharing aspects including mandatory sharing of information by regulated entities through CBY, sharing of information by non-regulated entities through the PCR, consumer consent, rights of consumers to view and dispute their data. However, these laws and regulations do not address the topic of establishing a private credit reporting model. This set of law and regulations are initially sufficient for an effective credit reporting environment in Yemen through CBY’s PCR.

According to Doing Business 2013, Yemen scored 2 out of a possible 6 points in the Depth of Credit Information Indictor, 0.9 percent (of adult population) in public registry coverage indicator, and ranks 167 in Getting Credit Indicator out of 185 economies. The poor credit registry system and its shortcomings in Yemen have not helped in addressing the weak financial intermediation in the country. Hence, CBY needs to follow a phased approach to reform the credit reporting sector by first establishing a new credit registry that is able to cater for CBY’s and the financial sector’s needs, which could be achieved through this project. On the longer terms, and as the market matures, CBY should consider delegating the PCR to the private sector.

On Islamic finance, surveys have shown that there is demand for Shari’ah compliant products. According to the IFC MSE Financing Needs Survey, more than 48 percent of MSEs surveyed state that religious reasons as preventing them from accessing bank loans. Islamic banks offer financial products based on Islamic principles, the most common of which are morabaha, musharaka and mudaraba. Other commercial banks offer conventional interest-bearing loan products. The central bank needs to work on strengthening the legal and regulatory framework for Islamic financial products in the market. Moreover, new Shari’ah compliant products need to be developed to cater for the growing demand.

Relationship to CAS
The Bank is actively supporting Yemen’s post-crisis transition. In collaboration with the United Nations, the European Union and the Islamic Development Bank, in 2012, the World Bank prepared a Joint Social and Economic Assessment (JSEA) to evaluate the impact of the crisis and identify recovery measures. The JSEA was the basis for the discussions at the donors conference in Riyadh and thereafter. In addition, the Bank has developed an Interim Strategy Note (ISN) to adjust its support to the current transition period and its aftermath.

The proposed operation is consistent with the Yemen FY13-14 ISN that was discussed by the Bank’s Board of Executive Directors on November 13, 2012. The operation addresses a key strategic objective of the Yemen ISN, namely laying the groundwork for private sector-led growth and job creation. This supports the national priority of developing an open, transparent, and competitive financial sector. The proposed project would also support the achievement of the other strategic objectives of the ISN, namely: (i) developing better social protection programs; (ii) supporting growth of the SME sector; (iii) enhancing public financial management; and improving de-centralized delivery of services. This would be achieved by using the financial infrastructure to support migration of government payments to electronic means and providing efficient credit reporting systems that would help in better credit decision-making for MSME credit.

The overriding objective of the ISN is to help the government produce tangible results that stabilize the transition in the short term, while laying the groundwork for medium term-reforms and sustainable longer-term benefits. The ISN proposes to support these objectives across four strategic pillars: (i) improving economic management by helping to maintain macro stability, improve fiscal policies, and strengthen public financial management and financial sector performance; (ii)
achieving quick wins and protecting the poor by creating short-term jobs, restoring basic services, improving access to social safety nets, and revitalizing livelihoods; (iii) laying the groundwork for private sector-led growth and job creation through targeted support to SMEs, access to finance, PPPs, and investment climate improvements; and (iv) enhancing local service delivery through support for decentralization, local governance, and improved citizen engagement.

The payment systems component of the project directly supports the objectives of developing a central bank core system and establishing a data center and project management support. Implementation of the proposed national payments system components would reduce systemic risk and also provide an efficient mechanism to implement various monetary policy tools and support the proposed issuance of Sukuk bonds. The national payments system would also enable shifting of Government payments from the current cash and cheque based mechanisms to electronic means thereby bringing efficiencies, reducing leakages and enhancing transparency. In addition, the public credit registry component contributes to objective of establishing a public credit registry, namely, supporting better access to finance opportunities through giving the chance to build positive credit histories and thus facilitating access to finance for MSME clients.

Moreover, the proposed activities would also help in enhancing governance and transparency, which in the context of the financial system would be achieved by implementing the core payments systems infrastructure which would enable using electronic payment means for government payments, developing a public credit registry, and a core banking system at CBY, as well as through strengthening the supervisory and regulatory framework which improve governance transparency through, among other things, the greater disclosure of information. All this will contribute to building a more competitive financial system, with a sound banking system, capable of playing a better role in financial intermediation, resource mobilization and risk management.

As per ISN, the implementation will be guided by three principles that will be mainstreamed across the program: (i) intensifying participation and inclusion; (ii) strengthening institutional capacity, governance, transparency, and accountability; and (iii) enhancing the operational flexibility of the Bank’s program.

In that context, the World Bank is keen on working closely with the Yemeni authorities in further developing the financial infrastructure in an effort to attain a more inclusive financial system that is able to play a significant role in facilitating better access to finance opportunities, which is a catalyst for creating jobs, and consequently better economic development. Having an efficient financial system that can deliver essential services can make a huge contribution to a country’s economic development.

There is an urgent need to modernize CBY and build a new financial infrastructure in this period of recovery. CBY is the only institution which is able to restore stability in a shaky environment. It requires effective tools to achieve effective supervision over the financial sector and to promote economic development through better access to finance. This project is critical in the period of recovery.

As a result of Yemen’s limited resources and its expanding needs and challenges, the government through its TPSD, has identified the top urgent priorities for the transitional phase. However, immediate solutions for creating economic growth, and reducing unemployment and poverty rates would remain weak requiring longer term policies and programs implementation. Therefore, the 2012-14 TPSD aims at bolstering the four immediate priorities by another six medium-term economic recovery priorities that rely mostly on private sector led growth (Box 1).

The proposed financial sector infrastructure project would support the implementation of the TPSD medium term priorities and achieve the priorities’ objectives especially for reviving economic growth (priority one), improving human resources development and job creation (priority four),
enhancing private sector development (priority five), and improving governance and transparency (priority six).

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The main objective of the project is to develop an institutional infrastructure that supports viable and sound finance practices, transparency, efficiency, financial inclusion, good governance, and resilience of the system to crisis. The operation would assist Yemen to move forward in strengthening the enabling environment for financial intermediation, resource mobilization and risk management, and increasing the private sector's role in the provision of financial services. This would help in developing an institutional infrastructure that supports viable and sound finance practices, good governance, and resilience of the system to crisis. The project’s main components are: (i) developing a central bank core system; (ii) developing the core components of the national payments system infrastructure; (iii) establishing a public credit registry; and (iv) establishing a data center and project management support.

There is an increasing necessity to strengthen the financial infrastructure in Yemen. It is crucial for financial institutions to exercise more scrutiny on all financial transactions, and transfers going in and out of the country, such as remittances and other transfers. The urgency of the matter has escalated concerns of transfers taking place to finance terrorism in Yemen, in light of the political developments and security issues on the ground. In addition, Yemen’s WTO accession would add more pressure on the government to further develop and strengthen its financial sector. Also, this is a bigger issue of concern as Yemen was placed under the FATF black-listed countries. These are all push factors for the central bank to take measures to strengthen their financial infrastructure, payments systems, and monitoring mechanisms.

The various steps proposed to be taken, namely the strengthening of CBY supervision, the introduction of an electronic payments system, and the setting up of a credit registry will not only improve Yemen’s financial infrastructure, reduce risks and improve access to finance, but will also have other additional benefits on the country’s standing and adherence to international standards and norms, especially with respect to combating money laundering and the financing of terrorism. At a higher level objective, this work will also address a critical issue related to the recent placement of Yemen under the FATF blacklist (June 22, 2012), including a comprehensive data warehouse solution as part of the core banking component. The data warehouse would enable the Financial Intelligence Unit (FIU) to automate the collection of the Suspicious Transaction Reporting (STR) and Currency Transaction Reporting (CTR) processes and enable a better analysis of the reports and tracking of transactions. Introduction of payments system would enable large scale shift of cash transactions to electronic means, which would enhance the ability of CBY to track transaction and ensure transparency. This would enable the FIU to better implement AML/CFT regulations and enhance the financial integrity in Yemen.

In addition to legislative steps which need to be taken by Yemen in order to improve its record on that front, the implementation of the three reforms mentioned above will also greatly enhance its capacity to do so. Strengthening the supervisory role of the CBY is a pre-requisite for the proper implementation of Know Your Customer (KYC) rules and for monitoring reporting guidelines. An electronic payments system will greatly reduce the reliance of the economy on cash transactions and therefore allow formal monitoring on payments and transfers. And establishing a credit registry will be a first step towards enforcing KYC rules and allowing financial institutions to properly access their customers’ standing and needs.

The proposed project will also support the implementation of the MAF and the government’s priority program to encourage sustainable expansion of access to finance for MSEs, which are
highly competitive and privately-owned. It aims at improving financial intermediation in Yemen that has historically been very weak. The project will support the authorities in attaining a more inclusive system able to cater the less privileged segments in the society. It will also ensure equal access to finance for both women and men, through effective gender mainstreaming. This ultimately contributes to employment generation, poverty reduction, and growth.

Key Results (From PCN)
Progress towards achieving the project’s development objectives will be measured by a series of quantitative and qualitative indicators at the PDO level and at the component level.
Expected key results and indicators at the PDO level: (i) a modernized CBY with an enhanced legal, regulatory, and supervisory framework; and (ii) an improved and more inclusive financial sector institutional infrastructure.
Indicators at the component level are as follows:

- Component I: Developing a Central Bank Core System: (i) developing a comprehensive technology strategy for revamping CBY; (ii) implementing the Core Banking System; and (iii) developing capacity building in banking regulation and supervision, including new internal guidelines, procedures and governance.

- Component II: Developing the National Payments System Infrastructure: (i) operationalizing an integrated RTGS, ACH and CSD system, complying with international standards and best practices; (ii) bringing about a significant improvement in the six indicators developed by the World Bank which cover the areas of legal framework, large value payment systems, retail payments, and payment systems oversight. At the end of the project the indicators for large value payment systems, legal and regulatory framework and oversight would reach a medium-high rating from the current rating of low and the indicator for retail payment systems would be in track to achieve a rating of medium-high in a period of 3-5 years from the current levels of low; and (iii) development of a NPS Development Strategy.

- Component III: Establishing a Public Credit Registry: (i) implementing and operationalizing a reliable and robust public credit registry hosted by CBY (adhering to the World Bank’s General Principles of Credit Reporting); (ii) ensuring that regulated and non-regulated financial institutions participate in the PCR and contribute credit data in a complete, accurate, and consistent manner; (iii) ensuring that participating lending institutions inquire the PCR before extending credit to customers.

- Component IV: Establishing a Data Center and Project Management Support: (i) implementation of an infrastructure suitable to house all the required ICT components to implemented as part of the current project; (ii) compliant with prevalent international standards for data center; (iii) assist the CBY Project Management Unit (PMU) in the preparation of bidding documents with support from an additional one or two consultants if required; and (iv) implementation of all the required ICT components on time and meeting all the required functional requirements.

III. Preliminary Description

Concept Description
This project is in response to the official request from the Minister of Planning and International Cooperation, dated May 28, 2012. Priority areas were identified based on the different Bank’s
assessments, as well as dialogue with the Yemeni authorities, the CBY, and market players. The design of the project has been underpinned by extensive analytical and advisory work and diagnostic work undertaken over the past years, including the FSAP; the joint WB-IFC Yemen Financial Sector Review—Yemen Financial Sector Reform: A Proposed Action Plan; the Arab Monetary Fund (AMF)-WB Assessment of the Payments System; the 2010 AMF-IFC National Credit Reporting Country Assessment in Yemen that was part of the Arab Credit Reporting Initiative (ACRI); and the 2012 Yemen Financial Infrastructure Strategy. Components covered under this project would be as follows:

Component One: Developing a Central Bank Core System (US$11.5 million)
There is an urgent need to revamp the overall IT infrastructure within CBY in order to modernize the central bank to addressing its core functions (statistics, accounting, monetary policy, treasury operations, foreign reserves management and banking supervision). In that context, a comprehensive technology strategy should be developed along a prioritized development plan. The CBY should select a core banking system which encompasses an optimizing/standardizing application systems dealing with CBY responsibilities, and an implementation of data warehousing system regarding banking supervision. CBY should promote IT awareness within the staff to ensure a smoothly and effective enforcement process. CBY should also review the central bank organization and the banking supervision framework for a proper and effective functioning of the core banking system.

This component will deliver a centralized data warehouse and a centralized core banking system which will capture data from banks and central banking operations and then process and feed them to central bank users. The central bank staff will be equipped with business development/data interrogation tools to turn data into information in the form of customized and standard reports to support supervision functions as well as to meet central bank requirements. The delivery of these systems will be supported by a suitable consultant for detailed design of the system architecture, technical specifications based on specific user needs, preparation of the bidding documents and bid evaluation reports as well as implementation support. Based on international comparisons (Vietnam, Egypt) estimated cost for the core banking system should be around US$11.5 million.

Component Two: Developing the Payments System Infrastructure (US$4 million)
This project component would be implemented in one central location and a business continuity center and all the banks and other eligible participants would be connected. This component would include the application software, hardware and required networking components. This system is called “Automated Transfer System” and combines the functionality of a Real Time Gross Settlement system (RTGS) and Automated Clearing House (ACH) and as a separate module a Central Securities Depository (CSD). The RTGS system would serve as the system for settlement of all large-value and systemically important payment transactions. The ACH would enable the banks and other eligible institutions to offer credit transfers and direct debits that can be used for a variety of retail payment needs such as salary payments, bill payments and tax payments.

The CSD would enable electronic recording of securities ownership and as the securities markets develop enable smooth operation of securities transfers resulting from secondary market transactions. The recording of securities ownership in electronic form would also enable efficient usage of these securities as collateral for liquidity support in the RTGS system and also for repo and other Open Market Operations (OMO) of the CBY. The CBY has held consultations with commercial banks and confirms their readiness and eagerness to participate in the national payments system. This component is estimated to cost around $4 million. The project would not fund the cost for system changes of the commercial banks and other participants. This would be handled by the commercial banks and other participants on their own. The ongoing operational costs would be
funded by a combination of fees from the participants and CBY’s own funds.

Component Three: Establishing a Public Credit Registry (US$3 million)

This component aims at establishing a reliable and robust PCR hosted by CBY. The new PCR will ensure that regulated and select non-regulated financial institutions participate in the PCR (with a particular focus at the beginning for the non-regulated entities on the microfinance sector, utilizing the basic system available at the Social Fund for Development, and then upon PCR stabilization other sectors including telecom, utilities, etc... should be included). The participating entities will be required to contribute credit data (including personal information, credit account data, and payment performance/history) in a complete, accurate, and consistent fashion. The key product of the PCR will be comprehensive credit reports including the necessary data for financial institutions to utilize before extending credit to their potential customers. This component will entail procuring a reputable international vendor in the credit reporting field, who will provide the PCR software solution with the required functionality and technical/security specifications, as well as the hardware required to operate the PCR. The vendor will be required to train CBY staff on operating the new system, and will work with financial institutions for them to submit their credit information in a complete and accurate format and at the same time are able to perform inquiries to the PCR and obtain credit reports that will be used in their credit risk management processes. The activities under this component should ensure adherence to the World Bank’s General Principles for Credit Reporting. This component does not include supporting any system upgrades/enhancements that may be required by some financial institutions, in which case should be handled directly by them. This component is estimated to cost around US$3 million.

Component Four: Establishing Data Centers and Project Management Support (US$1.5 million)

Sub-component I: Establishment of Data Centers (US$700,000). This sub-component would finance the establishment of two data centers to house all the ICT components of the main site and back-up site. A well-designed data center to house all the ICT components that would be deployed as part of this project is critical to the successful implementation of the project. The space for the data center would be identified and provided by the Central Bank of Yemen. The systems being deployed in particular the core banking system and payment systems are critical systems and require a very high degree of operational reliability. A fully functional back-up site with all the required ICT components that can serve as a back-up to the main site would also be required. The project would finance the establishment of a modern data center, and would include the following high level components: (i) data center preparation in terms of flooring, data cabling, power circuitry and air conditioning; (ii) power back-ups; (iii) access control systems; and (iv) system management systems, including system monitoring, system backups and network management systems. The cost of this sub-component is estimated to be around US$350,000 for each site, in total US$700,000.

Sub-component II: Project Management (US$800,000). The project brings together multiple ICT components and would hence require an entity that would play the role of a system integrator and overall project management. This entity would be responsible for orchestrating the overall implementation. The key responsibilities for this entity would be: (i) working with the CBY in clearly defining the scope of the individual systems and a high level project plan and support the CBY in the overall project management; (ii) analyzing the hardware and network requirements and identifying opportunities for leveraging existing systems components; (iii) developing the bidding documents for the various components in co-ordination with the CBY and with support from additional consultants if required; (iv) supporting the CBY in the evaluation of the bids and selection of vendors; (v) working with the chosen vendors and co-ordinate the implementation of the systems; (vi) supporting the CBY in conducting the user acceptance tests and operational acceptance tests; and (vi) conducting an assessment of the overall reliability of the implementation including all required security assessments. This sub-component is estimated to cost around US
$800,000.
The various steps proposed to be taken, namely the strengthening of CBY supervision, the introduction of an electronic payments system, and the setting up of a credit registry will not only improve Yemen’s financial infrastructure, reduce risks and improve access to finance, but will also have other additional benefits on the country’s standing and adherence to international standards and norms, especially with respect to combating money laundering and the financing of terrorism. In June 2012, Yemen was placed on FATF’s public statement (black list) for countries considered uncooperative in combating money laundering. In addition to legislative steps which need to be taken by Yemen in order to improve its record on that front, the implementation of the three reforms mentioned above will also greatly enhance its capacity to do so. Strengthening the supervisory role of the CBY is a pre-requisite for the proper implementation of KYC rules and for monitoring reporting guidelines. An electronic payments system will greatly reduce the reliance of the economy on cash transactions and therefore allow formal monitoring on payments and transfers. And establishing a credit registry will be a first step towards enforcing KYC rules and allowing financial institutions to properly access their customers’ standing and needs. The core banking system being implemented could also be used for automating the processes related to STR and CTR and thereby enable better analysis and tracking of these by the FIU.

IV. Safeguard Policies that might apply

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered by the Project</th>
<th>Yes</th>
<th>No</th>
<th>TBD</th>
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<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
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<td>Natural Habitats OP/BP 4.04</td>
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<td>Forests OP/BP 4.36</td>
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<td>Pest Management OP 4.09</td>
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<td>Physical Cultural Resources OP/BP 4.11</td>
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<td>Indigenous Peoples OP/BP 4.10</td>
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<td>Involuntary Resettlement OP/BP 4.12</td>
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<td>Safety of Dams OP/BP 4.37</td>
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<td>Projects on International Waterways OP/BP 7.50</td>
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<td>Projects in Disputed Areas OP/BP 7.60</td>
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V. Financing (in USD Million)

<table>
<thead>
<tr>
<th>Total Project Cost: 20.00</th>
<th>Total Bank Financing: 20.00</th>
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<tbody>
<tr>
<td>Total Cofinancing:</td>
<td>Financing Gap: 0.00</td>
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<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount</th>
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<tr>
<td>BORROWER/RECIPIENT</td>
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<tr>
<td>International Development Association (IDA)</td>
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<tr>
<td>Total</td>
<td>20.00</td>
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</tbody>
</table>

VI. Contact point

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Tel:  
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