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Kuwait: Financial System Stability Assessment—Update

This update to the Financial System Stability Assessment on Kuwait was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on July 1, 2010. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Kuwait or the Executive Board of the IMF.

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KUWAIT

Financial System Stability Assessment Update

Prepared by the Monetary and Capital Markets and Middle East and Central Asia Departments

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July 1, 2010

This Financial System Stability Assessment (FSSA) is based on the work of a joint IMF-World Bank Financial Sector Assessment Program (FSAP) Update mission that visited Kuwait, March 14–25, 2010. The findings were discussed with the authorities.

The key findings of the assessment are:

- The global financial crisis has adversely affected Kuwait's financial system by exposing vulnerabilities built up during the boom period and gaps in the regulatory oversight in the investment companies (IC) sector. Nevertheless, the authorities have succeeded in preserving financial stability and have taken steps to strengthen the financial sector oversight regime.
- Stress tests indicate that, in contrast to the ICs, the banking system could broadly withstand significant shocks given its comfortable capital and liquidity buffers.
- The Central Bank of Kuwait's (CBK) oversight framework for banks is well designed, and has proven effective in shielding the banking sector from the direct consequences of the crisis, but there is a need for further action on a number of fronts, including strengthening the macro-prudential and the financial safety net frameworks.
- The update and analysis of observance of Basel Core Principles (BCPs) relevant to risk management shows significant progress in achieving international standards. However, the analysis identified some issues that need to be addressed.
- The recent enactment of the capital market law is an important step toward the creation of a single, independent capital market authority (CMA), but there is a need to avoid potential regulatory and supervisory overlaps and gaps between the CMA and the CBK.
- The authorities have started taking steps to improve the prudential regulations of the IC sector.
- The regulatory regime for the insurance sector needs strengthening, to provide a sound basis for undertaking the liberalization and development of the insurance market.

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FSAP assessments are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAP assessments do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.

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GLOSSARY

BCP	Basel Core Principles
CAR	Capital adequacy ratio
CBK	Central Bank of Kuwait
CMA	Capital market authority
CPF	Contingency planning framework
CRE	Commercial real estate
DP	Development plan
ELA	Emergency liquidity assistance
EWS	Early warning system
FSAP	Financial Sector Assessment Program
FSSA	Financial System Stability Assessment
FSU	Financial Stability Unit
FSI	Financial soundness indicators
FSL	Financial stability law
FSR	Financial stability report
FX	Foreign exchange
GCC	Gulf Cooperation Council
IC	Investment company
ICAAP	Internal Capital Adequacy Assessment Process
KIA	Kuwait Investment Authority
KSE	Kuwait Stock Exchange
LGD	Loss-given default
LTV	Loan-to-value ratio
MOCI	Ministry of Commerce and Industry
MOF	Ministry of Finance
MOU	Memorandum of understanding
NBFI	Nonbank financial institution
NPL	Nonperforming loan
PD	Probability of default
ROA	Return on assets
ROE	Return on equity
RRE	Residential real estate
SWF	Sovereign wealth funds
TB	Treasury bill

EXECUTIVE SUMMARY

The financial sector in Kuwait has evolved significantly since the 2004 FSAP. In particular, the number of ICs has more than doubled, with on-and off-balance sheet assets reaching more than 90 percent of the total banking system's assets, making the sector systemically important.[1] The growth of the ICs' sector to some extent reflects a global trend namely the larger role for nonbanks and the search for yield. It also reflects an income trend (higher income with the oil boom), as well as features specific to Kuwait, such as low barriers to entry and strict regulations on banks' investment activities.

Banks' lending to the private sector has grown rapidly, at an average of 22 percent annually during 2004-08, funded mostly by robust growth in bank deposits. Important changes occurred in the structure of banks' credit portfolios, including a shift toward financing real estate activities and the purchasing of securities by individuals and ICs.

The global financial crisis adversely affected Kuwait's financial system, but the authorities have succeeded in preserving financial stability. In the banking sector, tighter liquidity conditions and a sharp decline in assets prices have adversely affected Kuwaiti banks' assets quality, and resulted in large increases in banks nonperforming loans (NPLs) and provisions, especially for the ICs and real estate sectors. In the wake of the crisis, the authorities implemented strong measures that helped to sustain confidence in the banking system, including the extension of bank deposit guarantee; bank liquidity injections; reductions in interest rates; and the adoption of a financial stability law.

The crisis has revealed substantial vulnerabilities in the IC sector. ICs have come under increasing pressure during the crisis stemming from a combination of over-leveraging, maturity mismatches and high asset concentration. The downward spiral affecting real estate and stock prices and the liquidity squeeze from domestic and foreign creditors led to a substantial deterioration in ICs' financial positions, defaults of a few large ICs, and large loan restructurings for the sector. The crisis also revealed a number of shortfalls in the current ICs' oversight regime that would need to be addressed.

Stress tests indicate that, in contrast to the ICs, the banking system could broadly withstand significant additional shocks. Under an adverse scenario of low oil prices associated with a deterioration in the global environment, investors and consumers' confidence would decline, liquidity would become tighter, and downward pressures on asset prices could increase. This would adversely affect banks' asset quality and undermine the solvency of some institutions. However, the recapitalization needs under this scenario seem manageable. In contrast to banks, the IC sector has limited capacity to withstand adverse

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[1] The term "investment company" in Kuwait covers firms with a wide array of activities, mainly direct and indirect investment in various sectors (real estate, industry, and agriculture), asset management, wealth and portfolio management, and financial advisory and brokerage services. There are no hedge funds in Kuwait.

shocks, given its large exposures to the real estate and equity markets.

In response to the vulnerabilities revealed by the crisis, the authorities have acted promptly to strengthen the financial sector oversight regime. The CBK has issued comprehensive regulatory guidance addressing weaknesses in banks' risk management processes during the crisis, and has begun moving the supervisory process from a compliance-based toward a risk-based approach. The CBK has also begun the process of overhauling the regulatory and oversight framework for ICs, which is weak.

The crisis has highlighted the need for further action on a number of fronts. The CBK's oversight framework for banks is well designed and has proven effective in shielding the banking sector from the direct consequences of the crisis, but has not been sufficient to avoid the turmoil that severely affected the IC sector. The CBK's macro-prudential framework needs to be strengthened to better measure and anticipate systemic risks within the financial system. The financial safety net framework—including, contingency planning, crisis management resolution framework—and the emergency liquidity assistance (ELA) facility, needs to be enhanced.

The enactment of the capital market law is an important step toward the creation of a single, independent, and accountable CMA, which should improve the functioning of the KSE and strengthen the IC sector's oversight. A better regulatory and oversight environment would enhance the KSE's market function. It is important, however, to clarify the regulatory and supervisory responsibilities for financial institutions between the CBK and the CMA, and to coordinate the transition process to the new oversight architecture.

The regulatory regime for the insurance sector needs strengthening. The current regulatory regime focuses on regulation and compliance instead of analyzing possible risks and weaknesses in the financial position or assessing insurance companies' operational risks. Strengthening insurance supervision would help provide a sound basis for undertaking the liberalization and development of the insurance market, and managing subsequent developments in the sector.

Table 1. Risk Assessment Matrix

	Overall Level of Concern	
Nature/Source of Main Threats	**Likelihood of Severe Realization of Threat Sometime in the Next 3 Years**	**Expected Impact on Financial Stability if Threat is Realized**
The banking sector is exposed (directly and indirectly) to real estate and stock market, and distressed ICs. Credit to these sectors amounts to 49 percent of total credit and 2.5 times banks' capital.1/ Decline in real estate and stock prices could increase the NPLs level significantly and hence jeopardize the solvency of the sector. Kuwaiti banks' exposure to sovereign risk is limited.	***Assessment: medium*** Activities in the real estate sector started to pick up toward the end of 2009, but not across all segments (commercial and investment segments remain weak). ICs remain distressed. Global recession, low oil prices, deterioration in the regional political environment could reverse the trend in the real estate sector, and adversely impact equity prices. The planned expansionary fiscal stance, if implemented according to the budget, is likely to lower the likelihood, at least for domestic assets.	***Assessment: medium*** If loan quality deteriorates, the impact on banking system stability might be significant. However, a number of factors would mitigate the impact on financial stability. Five of the 10 domestic banks in Kuwait are in the process of raising capital in 2010. Under the direction of the CBK, banks continue to build precautionary provisions. The relatively high current capital adequacy ratio (CAR) would also help.
The ICs sector suffers from several structural characteristics that make it vulnerable. These include (a) highly leveraged positions; (b) significant dependence on external financing (36 percent of liabilities); (c) maturity mismatches between assets and liabilities (long-term assets such as private equities are financed by short-term liabilities); (d) large exposure to asset markets (equity and real estate); (e) weak disclosure; and (f) fragmentation of the industry (an average of Kuwaiti dinar (KD) 0.40 billion of assets per IC). Further deterioration in global liquidity conditions would expose vulnerabilities (a), (b), and (c). ICs have negligible exposure to European assets.	***Assessment: high*** Many ICs are facing difficulties maintaining or renewing existing foreign lines of credit and some have defaulted, or are on the brink of default. The fall in assets prices has exposed vulnerability (d). Several ICs have managed to restructure their debts with their creditors. However, the restructuring has mainly addressed the liquidity problem. Solvency risk remains high and contingent on asset market developments. A decline in domestic and regional assets could significantly affect the solvency of these companies. Most of the ICs' assets are in Kuwait (43 percent) or in other Gulf Cooperation Council (GCC) countries (43 percent).2/	***Assessment: medium*** Banks' credit to ICs represents 11.5 percent of total credit to the private sector. The default of ICs will raise NPLs and further worsen the sector's access to credit. With ICs accounting for 13 percent of the Kuwait Stock Exchange (KSE) market capitalization, deterioration in the solvency of ICs would affect the asset quality of banks directly, and indirectly by putting further downward pressure on equity prices, weakening household, and non-financial corporate balance sheets.3/
Sustained lower oil revenues	***Assessment: low*** Kuwait's oil revenues are expected	***Assessment: high*** The impact on asset quality of both

	Overall Level of Concern	
Nature/Source of Main Threats	**Likelihood of Severe Realization of Threat Sometime in the Next 3 Years**	**Expected Impact on Financial Stability if Threat is Realized**
could weaken the public sector's medium-term financial position and investor confidence. Asset prices in Kuwait and the region are highly correlated to oil prices. Similarly, corporate sector profitability depends largely on government spending from oil revenues.	to recover in the medium term, with increased oil prices (WEO projections), while production will likely benefit from the global recovery. This is expected to improve medium-term fiscal and current account balances (Article IV consultation projections).	banks and ICs could be high due to a potential decline in asset prices and deterioration in corporate and household balance sheets. If a protracted decline in oil prices and demand were to materialize, the room for fiscal stimulus and bailouts would be limited due to lower revenues and potential losses in the sovereign wealth funds (SWFs) assets.

1/ This excludes installment loans (18 percent of total credit), which are for non-commercial purposes, particularly for restoring or purchasing private residence. They are low-risk loans since they are guaranteed by salary assignments.
2/ Based on a sample for the largest 11 companies in Kuwait.
3/ For example, at end-September 2008, 35 real estate companies with total assets of US$20 billion had invested up to US$4 billion in the KSE. Bank loans to individuals for investing in stocks represent 11 percent of banks' total loans.

Table 2. Priority Recommendations

General

- The CBK, CMA, and the Ministry of Commerce and Industry (MOCI) should clarify at the outset their respective supervisory responsibilities and initiate a coordination process to achieve an efficient oversight architecture.
- Establish at the CBK a financial stability unit (FSU) responsible for macro-prudential supervision.

Banking Supervision

- Perform periodic stress tests including for real estate and other major sectoral credit risk concentrations, and review existing assessments of the way banks consider these risk concentrations in their internal capital adequacy assessment processes (ICAAPs).
- Lower the maximum exposure limits on related parties.
- Enhance the legal framework to prohibit conflicts of interest concerning related party transactions.
- Complete the migration from compliance-based supervision to risk-based supervision.
- Continue strengthening the supervision capacity through further hiring and training.
- Shorten the on-site supervision cycle.
- Organize comprehensive ICAAP on-site examination.

Investment Companies

- Strengthen regulations on (a) licensing (in particular “fit and proper” criteria); (b) permissible activities; (c) corporate governance, including requirements on internal organization, internal control, risk management, external auditors, and accountancy rules; and (d) prudential limits on leverage and liquidity/maturity mismatch.
- Consideration could also be given to varying the minimum capital requirement depending on the activities and risks assumed by the entity.

Financial Safety Net Framework

- Replace the blanket guarantee with a deposit insurance system that promotes market discipline, including by introducing a cap at a level that adequately protects depositors, but provides incentives to conduct due diligence. The authorities need to define a transition strategy, with a timetable, once conditions allow.
- Improve ELA, including by broadening collateral acceptance policies and establishing a valuation framework with haircuts for non-standard collateral.

Resolution Framework

- Overhaul the bankruptcy framework to adequately handle bankruptcies of banks and other financial institutions.

I. Macroeconomic and Financial Sector Developments Since the 2004 FSAP

A. Pre-Crisis Developments

1. **The rapid expansion of the global economy and improvements in the regional environment since 2004 provided strong momentum to Kuwait's economy prior to the crisis.** Real GDP growth averaged 7 percent during 2004-08, and domestic aggregate demand grew at a faster rate of 11 percent. Inflation, however, rose and reached double digits by 2008, reflecting domestic demand pressures and higher import prices. Fueled by the rise in oil prices, the fiscal and current account surpluses averaged 34 and 42 percent of GDP, respectively, despite sizable increases in government expenditure and imports. Improvements in fundamentals and abundant liquidity supported strong increases in real estate and stock market prices. The KSE was the best performer among GCC states in this period, while the prices of apartments and commercial real estate (CRE) nearly doubled.

2. **Credit to the private sector grew rapidly, at an average rate of 22 percent annually during 2004-08 (Table 3).** Most of the credit expansion was financed by robust growth in bank deposits. Credit growth subsided in 2008-09 as the crisis reduced lending opportunities and placed a premium on holding liquid assets. Banks' profitability rose and the sector remained well-capitalized (Figure 1). Banks return on assets (ROA) averaged over 3 percent, and banks' CAR remained comfortably above the regulatory limit.

3. **The IC sector grew rapidly and gained systemic importance, but the growth was associated with a buildup of several vulnerabilities.** By end-2009, there were about 100 ICs compared to 41 in 2004, and their total assets had more than doubled (Figure 2). ICs became major participants in the stock market, and banks accumulated large exposures to them. However, vulnerabilities in ICs emerged, owing to a combination of over-leveraging, maturity mismatches, and high asset concentration (Box 1).

4. **The exchange rate regime in Kuwait is classified as a conventional peg to a basket of currencies.** The real exchange rate is broadly in line with fundamentals according to the IMF staff assessment during the Article IV consultation, and the peg remains appropriate in the run up to the GCC monetary union.

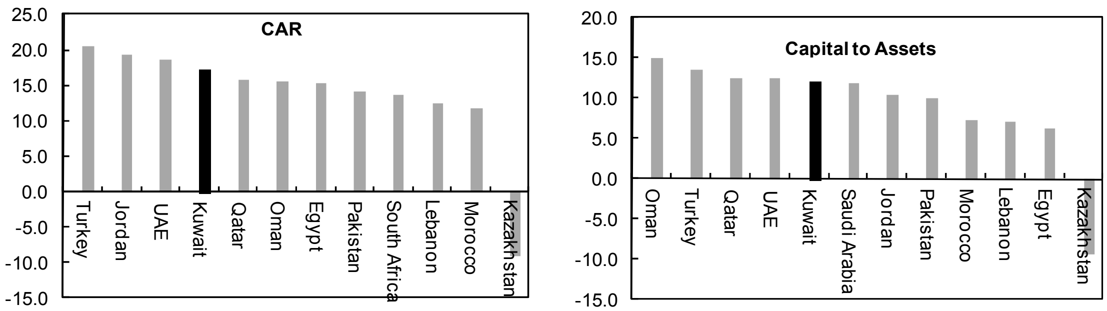
Table 3. Structure of the Financial System, 2004-09

	Assets 2004			Assets 2005			Assets 2006			Assets 2007			Assets 2008			Assets 2009 1/		
	Number	(KD million)	(% of total)	Number	(KD million)	(% of total)	Number	(KD million)	(% of total)	Number	(KD million)	(% of total)	Number	(KD million)	(% of total)	Number	(KD million)	(% of total)
Financial sector Assets	…	27,916	100.0	…	34,011	100.0	204	43,059	100.0	232	55,468	100.0	266	58,893	100.0	157	55,763	100.0
(Percent of GDP at market prices)		160			144			146			170			148			179	
Banking system:	…	19,144	68.6	…	21,612	63.5	15	26,990	62.7	15	35,540	64.1	17	39,242	66.6	18	40,318	72.3
State-controlled banks	…	…	…	…	…	…	1	508	1.2	1	583	1.1	1	589	1.0	1	654	1.2
Local private banks	…	…	…	…	…	…	9	26,098	60.6	9	34,087	61.5	9	37,619	63.9	9	38,333	68.7
Foreign-owned banks (branches)	…	…	…	…	…	…	5	384	0.9	5	870	1.6	7	1,035	1.8	8	1,331	2.4
Nonbank financial institutions:	137	8,772	31.4	160	12,399	36.5	189	16,069	37.3	217	19,928	35.9	249	19,651	33.4	139	15,445	27.7
Investment companies	42	6,360	22.8	56	9,429	27.7	73	13,135	30.5	79	15,995	28.8	99	17,305	29.4	101	15,349	27.5
Mutual funds	60	2,342	8.4	66	2,868	8.4	77	2,843	6.6	99	3,933	7.1	111	2,252	3.8			
Foreign exchange companies	35	70	0.2	38	102	0.3	39	91	0.2	39	93	0.2	39	94	0.2	38	96	0.2
GDP at market prices (KD billion)		17,500			23,600			29,470			32,586			39,787			31,099	

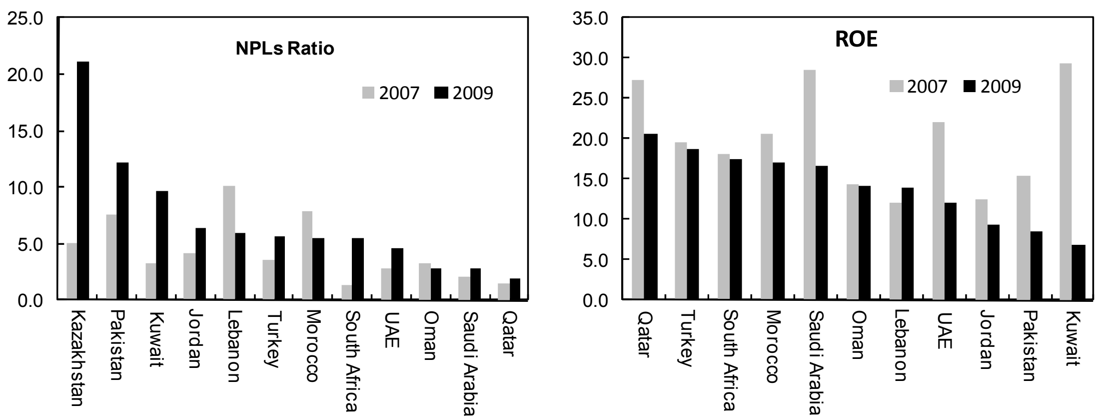
Source: Central Bank of Kuwait.
1/ September 2009. GDP for 2009 is based on IMF staff estimate during the FSAP mission.

Figure 1. Selected Emerging Markets' Banking Indicators, 2009

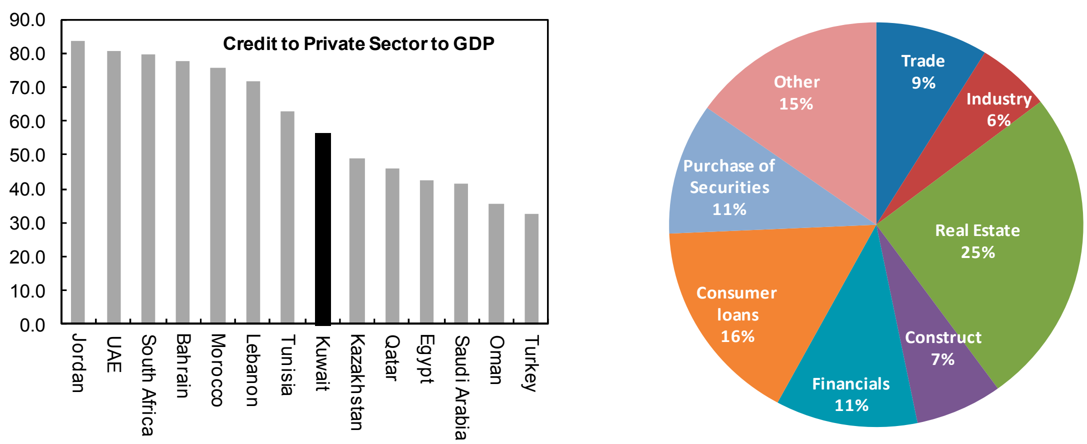
Kuwait's banking sector is adequately capitalized with both a high CAR and leverage ratio...



...However, asset quality has deteriored significantly and jeopardized banks' profitability.

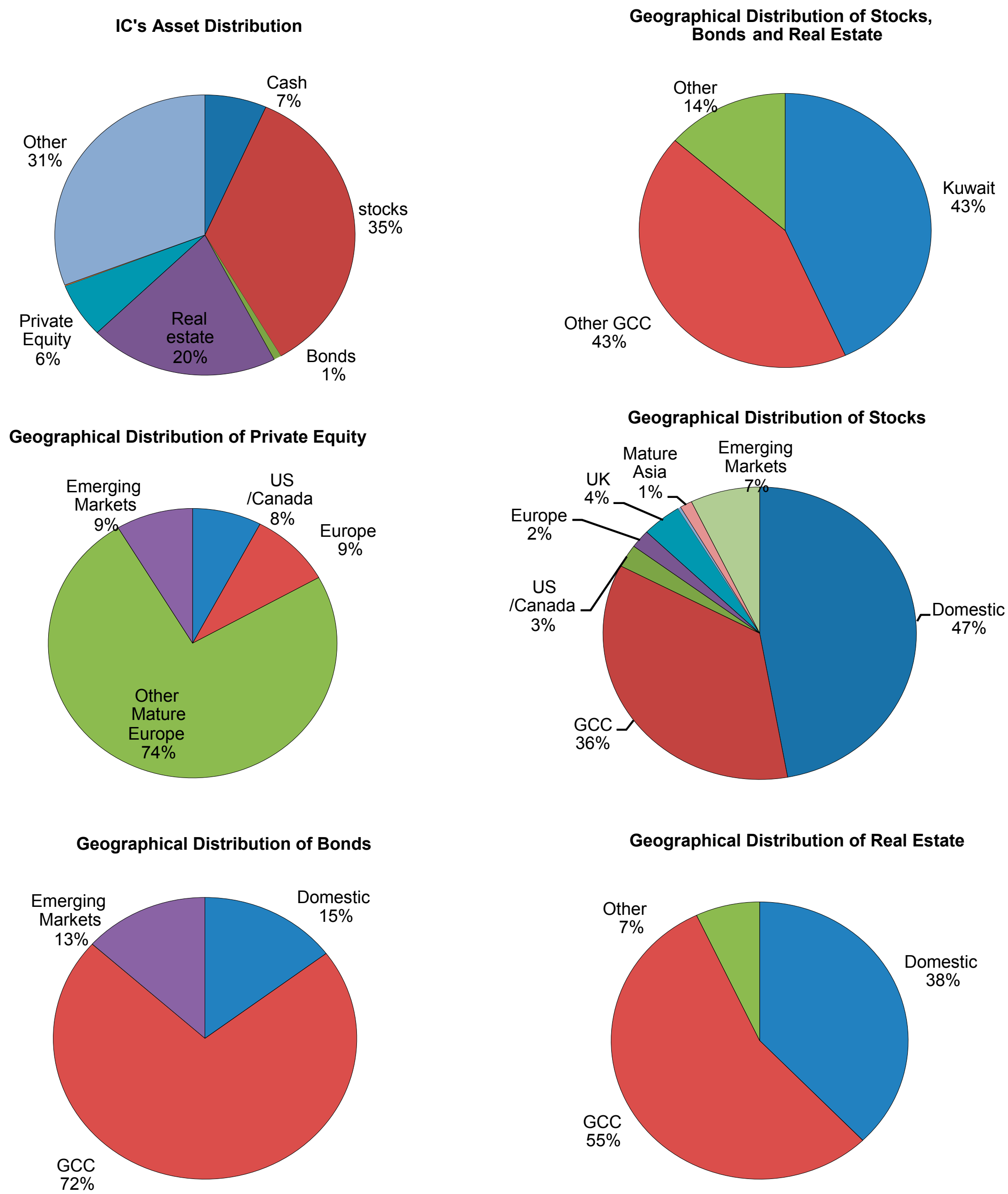


While credit to the private sector reflects adequate financial intermediation, it exhibits high sectoral concentration in real estate, investment companies, and securities purchase.



Source: IMF, Country Authorities.

Figure 2. Kuwait: Composition of ICs Assets



Source: CBK.

Box 1. Investment Companies: Rising Systemic Importance

ICs have become systemically important and constitute the second largest group of financial institutions. Their assets increased sharply during 2004–08 rising from 22.3 percent to 29.4 percent of total financial sector assets, although declining somewhat to 27.7 percent in 2009 (see Table 3). The systemic importance of the ICs is evident in their interconnectedness with the banking sector and real economy through direct and indirect channels. Banks' direct exposure to the IC's sector accounted for 11.5 percent of total loans as of December 2009 up from 8.8 percent in 2006. ICs are major investors in real estate and stock markets, and pressures on these asset prices resulting from fire sales by ICs in the event of acute distressed financial conditions can adversely impact banks' balance sheets. The impact can take hold through direct exposures to these assets, deteriorated households and corporate sectors' balance sheets, and increased NPLs.

The rapid growth in the IC sector was facilitated by low barriers to entry particularly the capital requirement of only KD 15 million), segmentation of the licensing and oversight responsibilities (the MOCI grants the license while the CBK has oversight responsibility), and the lack of clear international standards on how to regulate and supervise ICs.

The rising systemic importance of the IC sector has intensified the need to strengthen the regulatory and monitoring framework for ICs. Depending on the nature of their activities, and their client base, there could be a case for subjecting ICs not only to qualitative rules, particularly on licensing and corporate governance, but also to well-targeted quantitative prudential rules. Currently, the range of permissible activities is very wide; ICs can engage in much the same activities as banks. The only activity explicitly excluded is deposit taking. Corporate governance and risk management requirements in ICs are largely deficient. Many ICs have no independent directors or representatives of minority shareholders, no "fit and proper" tests for senior management and board members, and key functions such as internal audit, risk management and compliance are often missing or understaffed.

B. The Aftermath of the Global Financial Crisis

5. **The global crisis had a negative impact on Kuwait's economy (Table 4).** The decline in oil prices and production, and the reversal of speculative capital inflows of 2007 and early 2008 undermined investor confidence. The crisis triggered a steep fall in real estate and equity prices and weakened the financial balance sheets of the public and private sectors. Real GDP is estimated to have contracted by about 4½ percent in 2009. Real oil GDP declined by more than 11 percent, and real non-oil GDP is estimated to have remained flat, mainly reflecting weaker activity in the financial and construction sectors. The growth in bank credit to the private sector decelerated sharply from about 19 percent in 2008 to 7 percent in 2009, contributing to the weakening of the construction sector and the drop in the real estate and equity prices. Lower domestic demand and a drop in import prices reduced inflation to 4 percent in 2009.

6. **The global financial crisis adversely affected the banking system.** Tighter liquidity conditions[2] and a sharp decline in assets prices worsened Kuwaiti banks' assets quality, with large increases in NPLs and provisions. Profits declined by about 70 percent in 2008, the largest decline in the GCC region, driven in part by the losses in one bank stemming from derivatives transactions on behalf of customers. Several banks' ratings were downgraded. By end-2009, the NPLs ratio was close to 9.7 percent for Kuwaiti banks.

7. **The vulnerabilities built up in the IC sector during the boom years seriously exposed the sector in the aftermath of the crisis.** The large exposure to domestic and regional asset markets (equity and real estate) resulted in large losses to the sector. Deterioration in asset quality, along with global deleveraging and reassessment of risk, limited the ability of ICs to roll over debt, especially external debt. As a result, five large ICs defaulted on loans totaling about $10 billion and many ICs restructured or rescheduled their debt to the banking sector.

8. **The Kuwaiti authorities responded forcefully to adverse developments, which helped maintain financial stability.** The response came in several forms: (a) the extension of blanket guarantees on all bank deposits; (b) liquidity injections through central bank repo operations, swaps, direct collateralized placements, and government deposits at commercial banks; (c) a reduction in repo and discount rates; (d) the enactment of the financial stability law (FSL) allowing for substantial financial sector guarantees; (e) an easing of the prudential loan-to-deposit ratio to facilitate credit growth; and (f) support to the Kuwaiti stock market through the establishment of a stabilization fund (3 percent of GDP).[3]

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[2] Liquidity conditions tightened in the second half of 2008, reflecting capital outflows and rising concerns about counterparty risk.

[3] The utilization of this fund and the FSL loan guarantees have reportedly been very limited.

Table 4. Kuwait: Selected Economic Indicators, 2004–10

	2004	2005	2006	2007	Prel. 2008	Est. 2009	Proj. 2010
Oil and gas sector							
Total oil and gas exports (in billions of U.S. dollars)	26.7	42.4	53.2	59.1	82.6	46.7	56.5
Average oil export price (in U.S. dollars/barrel)	35.7	50.6	61.2	70.4	93.7	58.2	73.0
Crude oil production (in millions of barrels/day)	2.29	2.57	2.64	2.57	2.68	2.26	2.29
	(Annual percentage change, unless otherwise indicated)						
National accounts and prices							
Nominal GDP (market prices, in billions of Kuwaiti dinar)	17.5	23.6	29.5	32.6	39.8	28.2	33.1
Nominal GDP (market prices, in billions of U.S. dollars)	59.4	80.8	101.6	114.7	148.0	98.4	115.5
Real GDP (at factor cost)	11.1	10.4	5.3	4.6	5.6	-4.4	1.9
Real oil GDP	8.7	12.1	2.8	-2.6	3.3	-11.4	1.0
Real non-oil GDP	12.1	10.6	8.3	11.1	6.5	0.0	2.5
CPI inflation (average)	1.3	4.1	3.1	5.5	10.6	4.0	4.0
Unemployment rate (Kuwaiti nationals)	3.9	3.8	4.0	...	...	...	...
	(In percent of GDP at market prices)						
Investment and savings							
Investment	15.0	14.6	15.9	19.3	18.9	10.9	16.8
Public	3.7	3.0	2.8	3.3	3.5	5.4	5.9
Private 1/	11.3	11.7	13.1	15.7	15.4	5.5	10.9
Gross national savings	41.2	51.8	60.6	56.1	59.6	40.0	46.1
Public	36.6	55.7	60.2	55.7	47.5	47.2	38.1
Private 1/	10.7	1.1	4.5	2.2	12.3	-7.2	4.4
Savings/investment balance	26.2	37.2	44.6	36.8	40.7	29.1	29.3
	(In percent of GDP at market prices)						
Budgetary operations 2/							
Revenue	55.4	75.6	66.5	68.6	65.1	58.1	61.9
Oil	42.9	51.7	48.0	51.5	53.4	48.6	51.6
Non-oil, *of which:*	12.4	23.9	18.6	17.1	11.7	9.5	10.4
Investment income	9.0	21.4	15.7	13.8	8.8	5.8	7.1
Expenditures and net lending	32.8	27.2	33.9	27.9	49.1	40.1	45.8
Current 3/	28.6	23.6	29.9	23.8	44.6	34.8	39.5
Capital	4.2	3.6	4.0	4.1	4.5	5.2	6.3
Balance	22.6	48.5	32.6	40.7	16.0	18.0	16.2
Domestic financing	-5.7	-1.2	-2.8	-3.1	-4.6	-1.9	-1.0
External financing	-16.9	-47.3	-29.9	-37.5	-11.4	-16.1	-15.1
Non-oil balance (in percent of non-oil GDP) 4/	-61.0	-57.6	-58.8	-59.4	-77.8	-72.4	-82.5
Total gross debt (calendar year-end) 5/	17.3	11.8	8.3	6.7	5.7	7.7	6.6
	(Changes in percent of beginning broad money stock)						
Money and credit							
Net foreign assets 6/	10.3	3.2	12.5	1.1	10.0	8.4	9.4
Claims on nongovernment sector	14.5	17.6	24.5	35.6	19.2	7.0	8.3
Broad money	12.1	12.3	21.7	19.3	15.6	13.4	5.5
Kuwaiti dinar 3-month deposit rate (year average; in percent)	1.6	2.9	5.0	5.2	3.3	1.4	0.9
Stock market unweighted index (annual percent change) 7/	33.8	78.6	-12.0	24.7	-38.0	-10.0	-0.2
	(In billions of U.S. dollars, unless otherwise indicated)						
External sector							
Exports of goods	29.0	45.3	56.5	62.6	87.0	50.5	61.3
Of which: non-oil exports	2.3	2.9	3.3	3.5	4.4	3.8	4.7
Annual percentage change	4.6	22.9	14.6	6.4	25.1	-12.9	24.5
Imports of goods	-12.4	-15.1	-16.2	-19.1	-22.9	-17.1	-19.2
Annual percentage change	25.5	21.4	7.9	17.7	20.0	-25.3	11.8
Current account	15.6	30.1	45.3	42.2	60.2	28.7	33.8
In percent of GDP	26.2	37.2	44.6	36.8	40.7	29.1	29.3
External debt including private sector	15.5	20.2	30.8	57.5	60.6	57.5	...
International reserve assets	7.3	8.1	11.8	15.9	16.7	17.7	24.5
In months of imports of goods and services	4.4	4.1	5.3	5.9	5.3	6.9	8.5
	(Percentage change; unless otherwise noted)						
Memorandum items:							
Exchange rate (U.S. dollar per KD, period average)	3.39	3.42	3.45	3.52	3.72	3.48	...
Nominal effective exchange rate (NEER, period average)	-4.0	0.5	0.5	-2.2	2.5	-3.5	...
Real effective exchange rate (REER, period average)	-5.2	2.1	0.9	0.3	8.4	-0.5	...
Sovereign rating (S&P)	A+	A+	A+	AA-	AA-	AA-	...

Sources: Data provided by the authorities; and Fund staff estimates and projections.

1/ Also includes government entities.
2/ Kuwaiti fiscal year ending March 31, e.g. 2007 refers to fiscal year 2007/08.
3/ In 2006/07 KD 2 billion was transferred to partly cover the actuarial deficit of the Public Pension Fund.
In 2008/09, KD 5.5 were transferred. KD 1.1 billion are budgeted for each year from 2010/11 to 2014/15.
4/ Excludes investment income and pension recapitalization, but includes transfers for FGF.
5/ Excludes debt of Kuwait's SWF related to asset management operations.
6/ Excludes SDRs and IMF reserve position.
7/ Change in the KSE as of May 24, 2010 for 2010.

9. **Mindful of the risks to financial stability, the authorities took measures to strengthen the banking system's resilience and improve its working environment.** The CBK has encouraged banks to book precautionary provisions and increase capital. In addition, it has maintained an expansionary monetary stance to limit pressures on corporate and household balance sheets. To stimulate growth, the government has adopted a medium-term expansionary fiscal stance, with a focus on capital spending in the context of the newly approved development plan (DP).

10. **Only one bank resorted to the use of public funds for recapitalization.** The bank was capitalized through a rights issue to existing shareholders, backstopped by the Kuwait Investment Authority (KIA), which injected one third of the new capital. The ICs that managed to restructure their debts did not receive any public financial support (see Box 1 in the 2010 Staff Report).

11. **The high degree of trade and integration with the world economy makes Kuwait vulnerable to adverse developments in the global economy, including:**

(i) A protracted decline in oil prices would hamper the government's ability to stimulate the economy via countercyclical fiscal policy and will lower investors and consumers' confidence. This scenario would be particularly problematic in the current environment of weak private sector balance sheet, given that the latter would not be able to sustain aggregate demand at present via higher investment and consumption.

(i) Adverse developments in regional stock and real estate markets.

(ii) A tightening of liquidity conditions in international financial markets, which would limit the capacity of the ICs to refinance part of their liabilities.

II. Financial Sector Vulnerabilities

12. **The assessment of financial sector vulnerabilities focused on banks and ICs.** Nonbank financial institutions (NBFIs) other than the ICs are relatively small, and, in the case of insurance companies, are underdeveloped and do not pose systemic risks. The conclusions are based on an analysis of performance, financial soundness indicators (FSIs), and stress tests conducted in conjunction with the CBK.

13. **The FSAP Update undertook a stress testing analysis to assess the Kuwaiti banking and IC sectors' resilience to a set of extreme, but plausible shocks.** The tests covered market, credit, and liquidity risks using single-factor shocks and macroeconomic scenarios. The calibration of the shocks was guided by the Fund's (MCD) latest macroeconomic projections, performance of equity markets (for ICs), distribution tails from historical data covering at least 10 years of historical data from Kuwait, and expert judgment and cross-country evidence. The analysis also drew on market indicators (Appendix Figure

5). A macro-financial model was used to derive Kuwait-specific elasticities linking macroeconomic variables (including real non-oil GDP growth and oil prices) to NPL ratios.[4]

14. **Macro scenarios combining credit and market risks were constructed (Appendix IV).** In the baseline scenario, the economy is expected to experience a modest recovery in 2010, pulled by higher oil prices and larger public sector expenditure in the context of the recently approved DP. NPLs would, nevertheless increase by about two percentage points, since the private sector is still facing low profitability and depressed asset prices both domestically and abroad. The two adverse scenarios reflect intermediate and severe shocks and assume that a further slowdown in the global economy would lower oil revenues and non-oil GDP, reduce investor and consumer confidence, constrain access to credit, and depress asset prices. Consequently, loan defaults and losses would increase. The scenarios assume haircuts to the underlying collateral with magnitudes ranging between 10 percent in the baseline scenario and 50 percent in the severe scenario.

A. Banks

15. **Aggregate FSIs show that the banking system is highly capitalized, but rising NPLs and large concentrations to volatile sectors are a source of concern (Table 5).** At end-2009, the banking sector's CAR was at 18 percent and all banks maintained CARs well above the 12 percent regulatory minimum. Similarly, the leverage ratio (capital to assets) stood at a comfortable 12 percent, supported by increases in paid-in capital by some banks in 2009.[5] However, the asset quality of the banking sector deteriorated markedly in 2009, with the NPL ratio almost doubling to 9.7 percent from 5.3 percent in 2008, due to the general macroeconomic deterioration and high exposures to real estate sector and distressed ICs, and, to a lesser extent, two troubled Saudi conglomerates. Banks' assets are predominantly domestic (80 percent), and external exposures are limited. Banks main source of funding are domestic deposits. Although the coverage ratio (specific provisions to NPLs) declined to 38.5 percent from 41.6 percent in 2008, total provisioning (including precautionary) increased in 2009.[6]

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[4] The outcomes of these models do not take into account that 5 out the 10 domestic banks have raised their capital, or are in the process of raising their capital in 2010.

[5] Additionally, one bank has already increased its capital in early 2010, and four banks are in the process of increasing their capital further in 2010.

[6] Precautionary provisions increased to KD 470.3 million in 2009 (versus KD 385 million in 2008). Specific and precautionary provisions accounted for 51 percent of NPLs.

Table 5. Kuwait: Financial Soundness Indicators, 2006-09

	2006	2007	2008	2009
Capital Adequacy				
Regulatory capital to risk-weighted assets (All Banks) (Local & Foreign Branches) 1/	21.2	19.4	17.1	18.0
Regulatory capital to risk-weighted assets (Conventional Banks) 1/	21.8	18.4	15.5	18.9
Regulatory capital to risk-weighted assets (Islamic Banks) 1/	19.9	22.9	21.8	16.2
Tier 1 capital to risk-weighted assets (All Banks) (Local & Foreign Branches) 1/	18.6	17.4	15.8	16.8
Tier 1 capital to risk-weighted assets (Conventional Banks) 1/	18.5	15.9	13.8	16.9
Tier 1 capital to risk-weighted assets (Islamic Banks) 1/	19.4	23.1	22.4	16.8
Capital to assets	11.7	12.6	11.7	12.1
Asset Composition and Quality				
Trade	11.6	10.1	9.8	8.8
Industry	4.3	5.4	6.2	5.8
Real estate/Construction	28.7	30.6	31.3	32.2
Agriculture/fishing	0.2	0.1	0.1	0.1
Investment companies	8.8	11.7	10.9	11.1
Oil/gas	0.6	0.4	0.6	1.0
Public services	0.7	0.4	0.1	0.1
Households	39.2	33.6	31.8	31.8
Of which: Credit card advances	1.5	1.2	0.8	0.6
Of which: Automobile loans	4.0	2.6	2.2	2.0
Of which: Consumer loans	19.9	17.0	15.2	16.4
Of which: Mortgage loans	3.5	2.7	2.5	2.2
Of which: Equity purchase loans	10.3	10.1	11.1	10.5
Other	5.8	7.6	9.2	9.1
Non-performing loans to total loans	3.9	3.2	5.3	9.7
Specific Provisions to Gross Non Performing Loans	47.8	48.2	41.6	38.5
Non Performing Loans net of provisions to capital	14.3	11.4	26.0	45.7
Loans to shareholders and parent companies to total loans	4.7	5.0	2.0	4.1
Large exposures to Tier I capital	144.0	129.8	129.5	144.9
Specific Provisions to gross loans	1.8	1.5	2.2	3.7
Profitability				
Return on Average Assets (ROAA)	3.7	3.6	0.9	0.8
Return on Average Equity (ROAE)	28.8	29.4	7.7	6.8
Net interest Margin to gross income	55.9	50.0	58.8	65.8
Non-interest income to gross income	44.1	50.0	41.2	34.2
Trading and foreign exchange income to gross income	22.7	25.1	14.4	10.7
Non-interest expenses to gross income	28.3	26.6	36.9	37.6
Non-interest expenses to average assets	3.0	1.5	1.9	1.7
Personnel expenses to non-interest expenses	55.3	55.7	45.2	50.3
Liquidity				
Core Liquid assets to total assets	31.8	28.7	23.2	20.2
Core Liquid assets to short-term liabilities	36.3	35.0	27.8	26.8
Liquid assets to total assets	35.8	33.3	30.3	26.1
Liquid assets to short-term liabilities	29.5	39.0	36.4	34.7
FX- loans to total loans	12.1	14.0	18.5	13.6
FX- deposits to total deposits	23.9	24.9	25.1	18.7
FX- liabilities to total liabilities	21.8	24.3	23.2	19.2
Deposits to assets	66.7	66.7	70.3	71.8
Loans to deposits	86.5	89.1	89.7	91.0
FX- loans to FX-deposits	43.8	50.2	65.9	66.1
Sensitivity to Market Risk				
Net open FX position to capital and reserves	-3.2	0.6	10.0	10.0
Off-balance sheet operations as percent of assets	25.4	26.9	22.6	17.7
Gross asset position in derivatives as a percentage of tier I capital	43.2	59.7	56.5	44.4
Gross liability position in derivatives as a percentage of tier I capital	45.1	65.1	58.6	44.7
Equity exposure to shareholders' equity	53.2	56.9	67.6	68.5

Source: CBK and IMF staff estimates

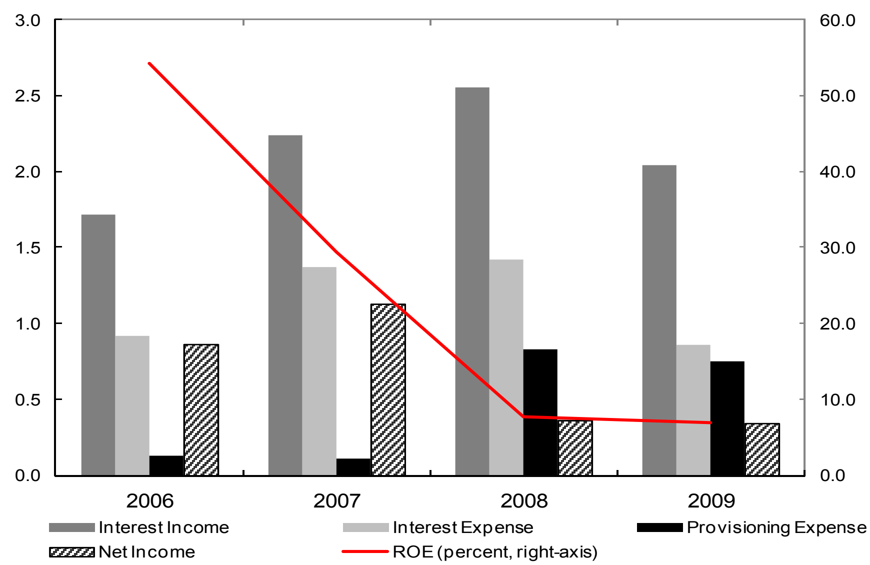
1/ Conventional banks adopted Basel II in 2005 while the capital adequacy ratio for Islamic banks continued to be calculated under Basel I up to the first quarter of 2009.

16. **The banking system appears liquid and insulated against foreign exchange (FX) risk, but exposed to equity risk.** Liquid assets account for 26 percent of total assets and cover 35 percent of short-term liabilities. The loans to deposits ratio has been relatively stable since 2007, rising slightly in 2009 to 91 percent (Table 5). The reported overall net open position is marginal, and, the regulatory limit is low (15 percent of Tier 1 capital). FX lending is restricted to hedged borrowers with FX earnings and for trade financing purposes. Banks' balance sheet composition indicates adequate asset liability management. However, equity exposures, both in the form of direct investments and collateral held against credit facilities accounted for 68.5 percent of shareholders' equity capital in 2009.

17. **The profitability of the Kuwaiti banking system has declined sharply since 2007 (Figure 3).** This is largely due to the significant increases in NPLs and provisioning, and large losses incurred by one large bank in 2008.[7] Return on equity (ROE) plunged to 7 percent in 2009 from 29.4 in 2007, and net income nearly halved. However, net interest margins remained relatively stable because of excess liquidity resulting from increased private and public deposits, and associated lower funding costs. The cost to income ratio deteriorated.

Figure 3. Kuwait: Profitability Analysis of the Banking Sector, 2006-09

(In billions KD, unless indicated otherwise)



18. **The stress tests indicate that the banking system could broadly withstand significant shocks, although some banks appear vulnerable to extreme macroeconomic shocks.** Under the intermediate shock scenario, none of the banks loses its entire capital, but

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[7] The losses amounted to US$ 1.4 billion as a result of a derivatives transaction on behalf of clients.

three of the largest banks fall below the minimum regulatory capital of 12 percent. The recapitalization needed to restore the CAR to the 12 percent minimum requirement is estimated at 0.9 percent of GDP. Under the severe case scenario, one medium-sized bank would lose its entire capital, while the CAR of three of the largest banks would fall below 8 percent. The maximum amount for recapitalization under this scenario is estimated at 3.8 percent of GDP.

19. **Single factor stress tests covered sectoral concentration and market risks.**[8] The results highlight risks related to the banking sector's high exposure to the real estate and construction sectors.[9] Deterioration in the quality of loans to these sectors would have the largest impact on banks' solvency. This test assumed a 50 percent haircut on the value of the underlying collateral, which reflects the long and complex foreclosure procedures, and the current illiquidity of the real estate market.[10] Market risk stress tests suggest that equity risk represents the most significant risk. The direct impact of exchange and interest rate shocks appear limited due to marginal FX net open positions, and adequate asset liability management.[11]

20. **A liquidity stress test was carried out to test banks' capacity to withstand a deposit run over a period of five days without external financing.** The results indicate that banks could withstand a substantial deposit run for the five days, without a need for external financing due to adequate liquidity buffers.[12]

B. Investment Companies

21. **The ICs have come under increasing pressure during the crisis stemming from a combination of risk factors.** These include (a) maturity mismatches between assets and liabilities; (b) large exposure to asset markets (equity and real estate); (c) highly leveraged

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[8] The sectors are real estate and construction, ICs, and consumer loans for securities purchases.

[9] The direct impact from the ICs' exposures in the single factor stress tests was not significant because of the still manageable exposure of banks (11 percent) and their existing provisioning on loans to this sector. The indirect impact through the decline in equity and collateral prices and the general increase in NPLs, captured in the macro-scenarios, is more significant.

[10] The loss given default (LGD) and average time to complete the foreclosure process is estimated at 65.5 percent and 4.2 years, respectively. See Debt Enforcement Around the World, by Djankov and others, *Journal of Political Economy*, Dec 2008.

[11] Interest rate stress tests used residual maturity gaps to evaluate the impact of yield curve shifts on net interest margins. Duration analysis was not undertaken given the absence of mark to market fixed income securities in banks' balance sheets.

[12] Refinancing risk is limited due to the reliance on deposits as the main source of funding, and to the very strong government capacity to provide liquidity support. Budget surpluses are large as a percentage of GDP.

positions for companies with significant dependence on external financing; (d) weak disclosure of risks; and (e) the wide dispersion of the industry (too many companies, each with a small market share hindering the buildup of appropriate risk management functions in many. The downward spiral affecting real estate and stock prices and the liquidity squeeze from domestic and foreign creditors have led to a substantial deterioration in ICs' financial positions as well as defaults of a few large ICs, and large loan restructuring and rescheduling for the sector.

22. **The stress analyses for ICs point to a limited capacity to withstand adverse shocks.** The second scenario, which assumes 15 to 33 percent default/loss rates (Appendix Table 6 for detailed assumptions), indicates that 3 ICs (out of 11) will lose all their capital and 7 ICs will have capital-to-assets ratio below 10 percent. Under the severe scenario, which assumes 20 to 66 percent default/ loss rates, 8 ICs (out of 11) will lose all their capital and only 1 IC will have capital-to-assets ratio above 10 percent.[13] The recapitalization needs for these companies under a severe scenario (to 10 percent capital to assets ratio) would amount to 2 percent of GDP.[14]

III. Financial Stability Framework

A. Prudential and Systemic Oversight

23. **Under the current legal framework, the prudential regulation and the supervision of the banking and ICs sectors are conducted primarily by the CBK.** Until the establishment of the CMA, the KSE, a self-regulated authority, was charged with supervising brokerage firms, entities engaged in portfolio management, and the Kuwait Clearing Company, as well as banks' and ICs' activities related to securities trading and portfolio management on account of third parties. The supervision of the insurance industry, including brokers and agents, is the responsibility of the MOCI.

24. **The creation of the CMA is a significant step forward, but it raises important issues about the division of labor with the CBK.** The CMA Law grants broad regulatory and monitoring powers over most ICs activities to the CMA, including licensing and issuing quantitative and qualitative regulation for securities businesses and prudential requirements for ICs themselves. There is, however, significant potential for regulatory and supervisory overlaps and gaps, which need to be addressed to ensure effective oversight. In particular, the

[13] The stress analyses for the ICs are limited and intended to be indicative only. Certain risks are not explicitly covered (liquidity risk) or not fully covered (market risk). The analysis applies the same probability of default (PD), LGD, and loss rates in some assets categories to all ICs, despite the differences in their assets portfolios. The market value for ICs' assets could be lower than what is reported by ICs under the 2009 baseline assets values.

[14] The anlysis does not account for the plans of some companies to increase capital in 2010 and the capitalization needs for other ICs, which are not included in the sample.

CMA Law is unclear on the respective responsibilities of the CBK, CMA, and MOCI. In the future, the CMA is expected to take the lead on market conduct-specific aspects of securities operations. This includes client administration, separation of assets, complaint handling, client relations, insider dealing, price rigging and conflict of interest and compliance. However, the law is not clear on whether the CBK or the CMA will take the lead on prudential regulation (solvency risk management, financial guarantees, capital, and large exposure reporting/limits) and general operational aspects (such as organizational structure, strategy, reporting lines, and internal controls).

25. **The crisis has highlighted the need for a major upgrade to the CBK's macroprudential framework.** The CBK has begun taking steps in this regard, including a FSU, which could play a key role in addressing macroprudential issues when they arise. The FSU could draw upon inter-disciplinary expertise from the on- and off-site supervision department and the foreign operations and economics research department, possibly combined with new staff. Other steps could include developing a macro-financial models to assess the impact of relevant macroeconomic shocks on the financial sector and consider issuing a financial stability report.

B. Regulatory and Supervisory Framework

Regulation and supervision of banks

26. **The analysis and update of Kuwait's observance of the Basel Core Principles (BCPs) for Effective Banking Supervision focused on risk management.** The assessment aimed at providing qualitative information on the risk environment, the supervisor's responsiveness, and the overall effectiveness of risk management in banks.[15] The assessment also covered the gaps identified in the 2004 FSAP (Appendix I).

27. **Kuwait shows progress in achieving international standards.** The CBK Law was amended in 2004 to enable the establishment of memoranda of understanding (MOUs) on information sharing and collaboration with foreign authorities for the purpose of consolidated supervision. It also gives the CBK the power to reject changes in significant ownership of a bank. A more gradual and comprehensive framework for remedial measures to deal with problem banks is now in place. This allows the CBK to impose fines, limit activities, remove senior management, and appoint a controller and/or a commissioner to manage the bank.

28. **However, the assessment noted some issues that need to be addressed.** The CBK should (a) perform periodic stress tests that cover real estate and other major sectoral credit risk concentrations; (b) review existing assessment of the way banks consider these risk concentrations in their ICAAP; (c) lower the maximum exposure on related parties; and

[15] The assessment was based on the revised BCPs (2006).

(d) enhance the legal framework to prohibit conflict of interest concerning related party transactions. Additional steps would include completing the migration from compliance-based supervision to risk-based supervision; further strengthening supervision capacity; shortening the on-site supervision cycle; and organizing comprehensive ICAAP on-site examinations.

Bank risk management

29. **The CBK has issued comprehensive regulatory guidance to assist banks in better identifying and managing risks in the future and capturing them in the ICAAP.**[16] The intent of the enhanced supervisory review process—which has yet to be implemented—is not only to ensure that banks have adequate capital to support all the risks in their business, but also to require banks to develop and use better risk monitoring and management techniques.[17]

30. **The CBK has begun the important process of moving the supervisory process from a compliance-based to an enhanced risk-based approach.** This involves a gradual, but fundamental reshaping of the business process of banking supervision and its organization, as well as adequate leadership, and an appropriate change process. The CBK is also in the process of further developing an enhanced risk-based supervisory system and a more elaborate early warning system.

Banks' corporate governance

31. **The CBK has played a key role in enhancing corporate governance practices in banks, but there is room for some improvement**.[18] This includes changes to requirements relating to independent members on the board, voting mechanisms to enhance minority shareholders' representation at the board level, and compensation structures of key executives and board members based on formalized performance evaluation schemes.[19] The introduction of the mandatory ICAAP in June 2009 and its integral stress testing process require also a substantial upgrade of banks' corporate governance. Board and senior

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[16]These guidelines, which supplement Basel II's second pillar (supervisory review process), are based on the *Supplemental Pillar II Guidance* issued by the Basel Committee in July 2009.

[17] In light of the Gulf Bank episode, complex derivatives and structured product transactions should be monitored closely by the CBK, and a full understanding of their downside risks by banks and their clients should be ensured before such transactions are conducted.

[18] In 2004, the CBK issued corporate governance directives largely in line with best principles. The CBK has also issued several "fit and proper" criteria/standards for board and executive positions.

[19] This gap is particularly relevant in a country like Kuwait whose banking system is emerging from an ownership structure historically based on families, or alliances of families, where boards and executives represent the direct interest of the owners, rather than those of depositors and other stakeholders.

management have to take responsibility for understanding the nature and level of the risks taken by the bank, and how those risks relate to adequate capital levels.

Investment companies

32. **The CBK is in the process of strengthening its IC regulation and supervision.**[20] The new regulatory initiatives encompass new prudential requirements, as well as improvements in corporate governance and risk management. In response to the global financial crisis, and in line with international initiatives for improving financial sector resilience,[21] the CBK is considering introducing (a) a regulatory ceiling on ICs' maximum leverage; (b) liquidity ratios to prevent the build-up of excessive maturity mismatches between assets and liabilities; and (c) a regulatory ceiling on foreign debt. Regulation must be complemented with effective supervision (including of ICs' activities outside Kuwait) and enforcement. However, Box 2 provides a summary of considerations to take into account when designing a set of new prudential rules for ICs. In addition to new quantitative rules, the CBK is planning to enhance risk management and corporate governance requirements tailored for ICs.

[20] To address weaknesses in risk and asset management in the IC sector, the CBK imposed, in June 2010, new regulations on financial leverage, liquidity, and international borrowing of ICs. ICs will have until mid-2012 to comply with the new rules.

[21] See Basel Committee of Banking Supervision (2009): Strengthening the Resilience of the Banking Sector.

Box 2. Considerations in Devising a Prudential Regulatory Framework for Kuwait's ICs

Designing appropriate financial regulation for ICs requires careful weighing of the pros and cons. Recent experiences during the global financial crisis suggest that any financial institution, bank or nonbank that is exposed to or poses systemic risk should be covered by some prudential regulation. The question is which regulation, and to what extent. Main considerations include:

- Underlying business activities—Regulations should reflect the specific risks entailed by the underlying activities. Within the IC sector, differentiating between institutions—for instance based on their activities and asset-liability structure—would help ensure the relevance of the regulations. While proper segregation between risk profiles might be necessary for adapting the regulatory framework, such distinctions can create a burden for supervisors, and opportunities for regulatory arbitrage.

- Minimum capital requirement—it is widely accepted that banks and other deposit-taking institutions should be subject to some minimum capital requirement. The consensus is less clear-cut for nonbank institutions. For Kuwaiti investment companies, some market participants point out that, at KD 15 million, the current minimum capital requirement is too low, as an entry barrier. While the existence of a minimum capital requirement makes sense, when it is the only prudential requirement, its relevance is less obvious once a more comprehensive regulatory framework is put in place. Consideration could be given to varying the minimum capital depending on the activities and risks assumed by the entity.

- Leveraging and liquidity/maturity mismatch—there seems to be some justification for well-targeted prudential limits on leverage and liquidity, for some types of ICs. Many ICs that individually may not be systemic are nevertheless highly leveraged, with short-term debt and illiquid assets. In a crisis period, their collective herd-like behavior could raise systemic risk. However, setting ex ante leverage or liquidity limits is a complex undertaking, given the diverse activities of the Kuwaiti investment companies. Arbitrary caps could lead to distortions, and excessive limits might unduly restrict companies' options.

- Qualitative monitoring—There is a strong case for strengthening qualitative aspects, including regulations on licensing (in particular "fit and proper" criteria), and regulations aligned with international corporate governance best practices, including requirements on internal organization, internal control, risk management, external auditors, accountancy rules and standards fixed by the supervisor, disclosure and minimum contents of published accounts.

C. Financial Safety Net Framework

33. **Following the Gulf Bank crisis in November 2008, the CBK introduced a blanket guarantee on deposits.** The blanket guarantee provides unlimited coverage, both for the insured amount and with the kind of deposits covered (i.e., wholesale and retail, domestic and foreign creditors). Before the introduction of the blanket guarantee, no formal deposit insurance was in place, although the Kuwaiti authorities signaled that depositors would be provided compensation in case of bank failures. There is no strategy in place to roll-back or eliminate the current extraordinary coverage. An important shortcoming of the current blanket guarantee is that it is not backed by explicit funding arrangements, nor is the infrastructure in place for making actual pay-outs. In the event of a bank failure, these factors

could potentially cause severe delays in providing compensation to depositors, which may ultimately undermine its effectiveness in preventing bank runs.

34. **Consideration should be given to replacing the current blanket guarantee arrangement, with a deposit insurance system that promotes market discipline.** In the long term, the blanket guarantee can undermine market discipline and fuel moral hazard. Maintaining the blanket guarantee erodes incentives for depositors to assess banks' risk profiles. This is especially problematic for the large value wholesale depositors, who will have no proper incentives to conduct due diligence. This may induce excessive risk taking. To curb moral hazard tendencies, deposit insurance needs to be capped at a level that adequately protects retail depositors, but that still provides lenders with the proper incentives to conduct due diligence. The authorities need to decide their ultimate policy objective regarding deposit insurance and define a transition strategy, with a timetable. This could be done in the context of an exit strategy from the support measures that were introduced during the crisis.[22]

35. **There is also room to improve the ELA framework.** The CBK Law (Art. 41) allows for the extension of ELA to banks only. The maximum tenure of ELA loans is six months, and usually loans need to be backed by adequate collateral, commonly understood to be Kuwaiti treasury bills (TB) and bonds, although the law permits the use of non-standard collateral. The CBK could consider broadening its collateral acceptance policy by establishing a valuation framework with haircuts for non-standard collateral.

D. Contingency Planning and Crisis Management

36. **Contingency planning and crisis management arrangements need to be strengthened.** An MOU formalizing interagency cooperation arrangements between the CBK, Ministry of Finance (MOF), KIA, and the future CMA; and the regular testing of these arrangements would strengthen crisis preparedness. Interagency coordination and cooperation during financial crises occur mostly on an informal basis[23] raising the risk of conflicts of interest, lack of preparation, and inadequate information sharing among regulators. The MOU would provide an explicit description of responsibilities in the event of a financial crisis. The adequacy of interagency arrangements and the overall state of crisis preparedness could be tested regularly in crisis simulation exercises.

[22] The exit strategy could also address two other measures: (a) reversing the easing of the loan-to-deposit ratio back from the current 85 percent to the pre-crisis level of 80 percent; and (b) the KSE stabilization fund.

[23] The MOF and MOCI are represented on the CBK Board, while the CBK is also represented on the KIA Board.

E. Resolution Framework

37. **Kuwait's bankruptcy framework needs to be amended to introduce a specific resolution regime for failing financial institutions beyond the corporate bankruptcy regime.** Kuwait does not have a specific resolution regime setting out distinct bankruptcy procedures for financial institutions, particularly banks and ICs, which would help reduce the impact of failures of financial institutions on the financial system and the real economy. Furthermore, the existing bankruptcy procedures can be cumbersome, with onerous court procedures. These issues are not addressed by the new FSL.

38. **Facilitating debt rescheduling for viable ICs is a major challenge within the current legal and regulatory framework.** In the absence of a special resolution regime, progress with debt rescheduling in the IC sector has been slow. Only one IC has sought debt rescheduling under the FSL.[24] Furthermore, only ICs that seek to use the FSL's provisions undergo a mandatory assessment of their viability, which consists of an evaluation of the quality of assets and the capacity of capital to absorb losses. The assessment is conducted by consulting companies, but is extensively commented upon by the CBK.

IV. Development Issues in the Nonbank Sector

A. Government Securities Market

39. **Although the government has been issuing TBs and bonds for monetary operations purposes, the secondary market for government securities is virtually nonexistent.** Neither the MOF nor the CBK announces an issuance calendar.[25] Banks own the majority of government bonds and keep rolling over their holdings, partly because government bonds are eligible for banks' liquidity ratio requirement. Considering the size of Islamic banking in Kuwait and its rapid growth, the market for government securities could benefit from the issuance of government Sukuk.

B. Capital Market

40. **During the recent crisis, the KSE has proven operationally resilient, but weak in price discovery.** During the precipitous fall from June 2008 to March 2009, the KSE experienced no material operational troubles, but lost KD27.2 billion or 51 percent in market

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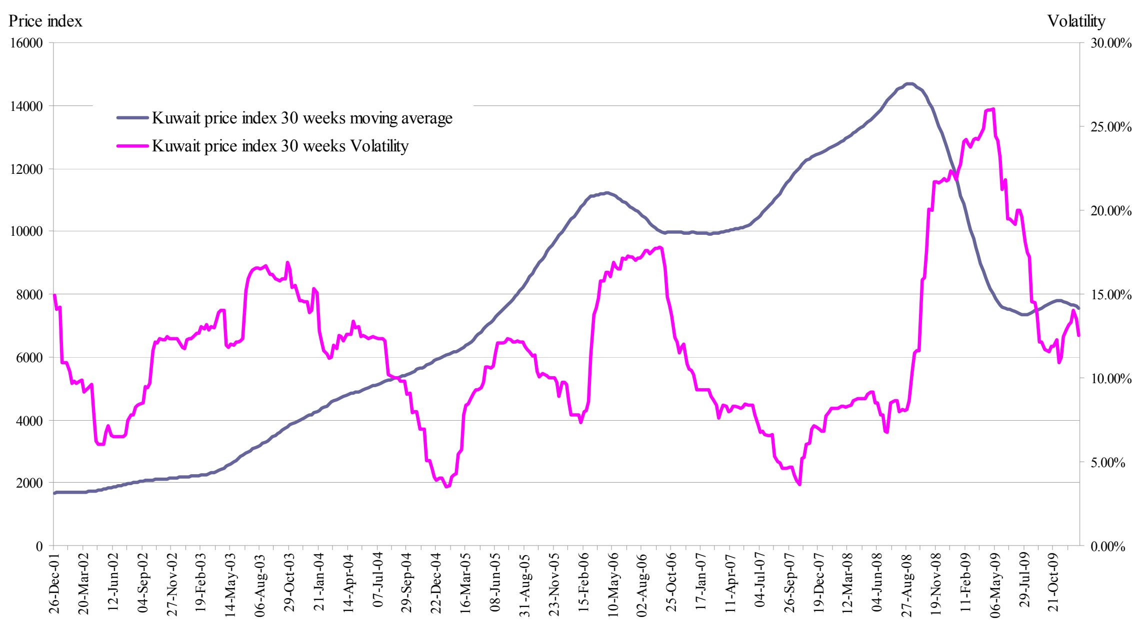
[24] Uncertainty regarding court rulings and procedures in the debt rescheduling process has been cited among the reasons for ICs reluctance to accept the requirements in the FSL. Many ICs opted for direct restructuring agreements with banks and other creditors. For more information on the FSL, see the 2009 Article IV consultation report.

[25] Planned issuances of government bills and bonds are announced by the CBK about one week in advance, and the KIA is informed. Given the pegged exchange rate regime, the lack of secondary market has limited effects on the transmission mechanism of monetary policy.

capitalization. During the boom period, the market built up extreme market imbalances, which rose sharply between short-term speculative funds and long-term investment funds, and between fundamental values and stock market prices, with no trading mechanisms, such as short selling, to correct deviations from fundamental values in a precautionary manner. The buildup of imbalances occurred through a one-way market with low volatility, while the correction process was highly volatile (Figure 4), reflecting the predominance of uninformed investors in the market. The enactment of the CMA law is highly commendable for potentially streamlining securities activity, which weighs on the country's financial stability. Better regulatory and oversight environment would enhance the price discovery function through, for example, the licensing of institutional investors and the reduction of price volatility arising from market manipulations. The CMA law will strengthen the governance of the KSE, by introducing stability, embedded in the law, to the commission structure.

Figure 4. Moving Averages of KSE Price Index and Volatility (2001-09)



Sources: Bloomberg; and FSAP staff's analysis.

C. Insurance and Housing Finance

41. **Relative to its potential, the insurance sector is small and underdeveloped.** The Kuwaiti insurance sector is one of the smallest in the GCC. Total gross insurance premiums in 2008 amounted to KD181 million (US$670 million), or only 0.6 percent of GDP. Several factors contribute to low insurance penetration, including the low level of awareness of insurance products and their uses, and low public confidence in the sector, which, in part, reflects the absence of a modern regulatory and supervisory approach. Premia on motor third party liability insurance (MTPL), which is the most material class and is compulsory, are not

risk-based and politically constrained in Kuwait, resulting in low quality service and lack of competition.

42. **The regulatory regime for the insurance sector needs strengthening.** The current regulatory regime focuses on regulation and compliance instead of analyzing possible risks and weaknesses in the financial position or assessing insurance companies' operational risks. Strengthening insurance supervision would help provide a sound basis for undertaking the liberalization and development of the insurance market, and managing subsequent developments in the sector.

43. **Imbalances in the prudential framework for housing finance and interest rate limitations have led to a concentration in volatile CRE lending, rather than residential real estate (RRE) lending.** RRE lending is subject to strict regulations aimed at avoiding over-indebtedness and dampening speculation, (e.g., restrictions of property trading and prohibition of mortgaging any residential properties), while the level of regulation in the CRE market is far less stringent. The only norms seem to be the requirement of independent and regular appraisal of collateral. In addition, a cap on lending rates and the obligation to keep them fixed for at least five years generates two types of risks: market price inflation through artificially low cost of borrowing, and a significant exposure to interest rate risk for banks, in the absence of matched funding sources or hedging instruments.

APPENDIX I. FSAP 2004 RECOMMENDATIONS IMPLEMENTATION

Immediate Measures—FSAP 2004	Implementation
Take steps to reduce moral hazard and encourage economic agents to deal prudently with risk, including through the elimination of the blanket deposit guarantee, bank bailouts, and bailouts of investors in the stock and real estate markets	**Largely implemented**. The blanket deposit guarantee was removed, but reinstated in the aftermath of the global crisis. The bank's recapitalization performed in 2008 was designed in a way that limits moral hazard. Despite the impact of the crisis on ICs, no bailout has occurred so far. However, under pressure from the parliament, a program to support distressed retail borrowers was introduced.
Enact amendments to the CBK Law that enhance the independence of the CBK in its capacity as banking regulator and supervisor.	**Not implemented.** While this needs to be addressed, it has not affected the CBK's effective functioning nor its capacity to supervise and regulate banks and ICs.
Continue to closely monitor banks' lending risk associated with the stock market and real estate sectors, and further develop related stress testing procedures and capabilities within the banking supervision department, and be prepared to take quick supervisory action if necessary.	**Largely implemented**. Lending risks associated with the stock markets and real estate sector are closely monitored and banks have been encouraged to fix internal sectoral limits. The risk concentration on these sectors is also captured under Pillar 2 and the recently introduced ICAAP, and the stress testing approach.
Introduce greater flexibility in interest rates on lending, to enable lenders to better price the risks of lending, including in particular to small-and medium-sized enterprises (SMEs).	**Not implemented.** The ceiling on lending rates remains as a legal requirement. Removing this ceiling will require an amendment to the Commercial Law.
Seek authority to share confidential information for supervisory purposes with appropriate domestic and foreign authorities.	**Implemented**
Enact a new capital markets law creating a single independent and accountable authority with full powers to develop and regulate the securities market and industry.	**Implemented**
Prohibit insider trading and market manipulation, and enforce by establishing comprehensive inspection, investigation, and surveillance systems.	**Largely implemented.** The KSE is in the process of installing a sophisticated market monitoring system.
Define entry standards for all types of market intermediaries.	**Not implemented**
Develop a unified code of prudential regulations.	**Not implemented**
Allow the market to diversify product lines, and liberalize foreign participation in the market.	**Largely implemented.** The authorities opened the market for foreign banks. Foreigners can own Kuwaiti companies' shares. Some limits remain on banks' shares.
Enact a new insurance law that includes the elements of a modern insurance supervision framework as embodied in the Core Principles for Insurance Supervision, including independent status for the supervisory agency.	**Not implemented**
In the near term, strengthen the capacity of the insurance department of the ministry of commerce and industry by hiring a senior advisor with expertise in insurance supervision; obtaining expert advice to develop supervisory guidelines for underwriting, and liability management and reinsurance; and hiring additional staff with insurance industry experience	**Largely implemented**. The insurance department has hired a senior advisor with expertise in insurance supervision. However, capacity building is still needed.

In liquidity management, reduce reliance on banks' deposits with the CBK by issuing CBK bills or additional TBs.	**Implemented**
Reduce or introduce more flexibility in the 20 percent liquid asset requirement (e.g., counting deposits with the CBK and permitting banks to meet the requirement on average over a period of time rather than every day).	**Implemented**
Building on the preceding steps, by fostering the development of the secondary market.	**Partially implemented.** Issuance of treasury bonds began in 2005. The maturity range of treasury bonds was lengthened throughout 2006 by way of new issues of 2, 3, 5 and 7-year bonds. Settlement of trades conducted in treasury bonds is facilitated by way of a fungible, book-entry system and no restrictions are imposed with respect to either individual or corporate ownership of such instruments.1/
Continue high priority implementation of the RTGS system, ensuring that its regulations comply with Core Principles 3 (management of credit risks and liquidity risks) and 9 (objective and publicly disclosed criteria for participation), and in general publicly disclosing major policies	Not within the scope of the FSAP Update

1/ It is the central bank's opinion that there are no perceived structural or legal impediments to forestall the development of a secondary market for government debt. The foundation for the creation of a secondary market has been laid, but that the financial sector has been insufficiently responsive in building upon the initiatives already put forward by the central bank.

APPENDIX II. MAIN RECOMMENDATIONS

Immediate Measures	Agency
Financial sector oversight	
Clarify regulatory and supervisory responsibilities for financial institutions between the CBK, CMA, and MOCI and initiate coordination for transition process to new oversight architecture.	CBK/CMA/MOCI
Perform periodic stress tests of real estate and other major sectoral credit risks concentrations, and review existing assessment of the way banks consider these risk concentrations in their ICAAP.	CBK
Extend viability assessment to all systemically important ICs.	CBK
Complete integration of ICAAP in on-site manual and start on-site examination on ICAAP in one bank as a pilot project.	CBK
Finalize qualitative and quantitative staffing enhancement program for the banking supervision department.	CBK
Short-Term Measures	
Financial sector oversight	
Enhance framework for macro-prudential surveillance by establishing the FSU and initiate integrated supervision of systematically important sectors	CBK
Strengthen corporate governance rules by applying “fit and proper” test on board and management of new conventional banks	CBK
Issue a directive on conflict of interest requiring board members or senior management and staff to abstain from participating in decisions on credit granting in their favor and reduce the individual and aggregate limit for credit to related parties.	CBK
Continue the migration process from compliance based supervision to risk-based supervision	CBK
Introduce quantitative and qualitative regulation to better monitor ICs’ financial soundness and improve corporate governance. Develop new licensing regime for ICs.	CBK/CMA
Establish funding and operational arrangements for deposit insurance, including by introducing a cap at a level that adequately protects depositors, but provides incentives to conduct due diligence.	CBK/MOF
Establish an MOU on financial crisis management between key agencies CBK, MOF, CMA, and KIA.	CBK/MOF/ CMA/KIA

Medium-Term Measures	
Contingency planning and crisis management	
Consider widening collateral acceptance for ELA operations	CBK
Establish a special resolution regime that sets out a set of distinct bankruptcy procedures for financial institutions	CBK
Implement the remaining recommendations from 2004 FSAP	
Liquidity management and financial market development	
Formulate a long-term plan for debt/sukuk market development, and start implementing it with a short-term market	CBK/MOF
Real estate sector	
Develop a real estate market information database	TBD
Review the prudential regime for CRE, with a view of strengthening it	TBD
Insurance	
Enhance the visibility of the regulatory and supervisory function to develop effective supervisory process	MOCI
Increase technical capacity of insurance department particularly regarding effective supervision	MOCI
Restructure MTPL insurance to ensure that this compulsory product is sustainable, improves the reputation of the industry, and covers liabilities appropriately	MOCI

APPENDIX III. FOCUSED REVIEW OF THE BASEL CORE PRINCIPLES —SUMMARY

44. **The mission reviewed the authorities' measures to address the gaps identified in the 2004 FSAP, and on compliance with selected BCPs relevant to risk management.** The results are summarized in Appendix Tables 1, 2, and 3 below.

Appendix Table 1. Principal, 2004 Recommended Actions and Their Follow-Up

Reference Principle	2004 Recommended Action	Authorities' Actions
CP 1 (1) Objectives, Autonomy, Powers and Resources	Adopt legislative changes that would remove the MOF's influence over the CBK's decisions on licensing, closure, and certain other remedial actions.	No change
CP 1 (6) Cooperation	The Central Bank Law should be amended to allow for sharing of supervisory information between domestic regulators and between domestic and foreign banking supervisors.	Art. 78 (a) and Art. 82, § 3 of the CBK Law was amended in 2004.
CP 3 Licensing Criteria	The supervisor should be given the authority to reject applications for banking licenses when the owners do not meet the "fit and proper" test.	No change for conventional banks Islamic banks owners are submitted to "fit and proper" tests.
CP 4 Ownership	The supervisor should be given the power to reject changes in significant ownership of a bank.	Change of Art 57,§ 3 of the CBK Law in 2004 and its executive circulars setting a 5 percent maximum, individual ownership(direct and indirect) for local banks and authorizing the CBK to reject changes in ownership.
CP 10 Connected Lending	The definition of connected lending should be expanded to include affiliates and related parties that are connected to the director's interest through common ownership.	The CBK's Instruction IBS/101/1995 does address affiliated companies. The November 1995 CBK Instructions on credit to members of their board also apply to economically and legally related parties, whether they are associated through common ownership or common management.
CP 22 Remedial Measures	The authorities should consider establishing a graduated formal framework for dealing with problem banks, and this framework should be transparent to allow the various stakeholders to know the CBK requirements for maintaining a banking license.	Art. 64 and 85 of the CBK Law were amended in 2004 extending the remedial measures the supervisor is authorized to impose. However, a special resolution system for financial institutions is still needed.
CP 24 Host Country Supervision CP 25 Supervision over Foreign Banks' Establishment	Approve legislation in the National Assembly allowing the supervisory authorities to share confidential information with domestic regulators and foreign supervisors. Following enactment of the legislation, the supervisory authorities should enter into MOUs with domestic and foreign counterparts for sharing of confidential information	Art. 78 (a) and Art. 82, § 3 of the CBK Law has been amended in 2004. MOUs have not been concluded, but the CBK shares information and collaborates with foreign authorities for the purpose of consolidated supervision.

Appendix Table 2. Summary of the Principal Recommendations and Priorities

Reference Principle	Recommended Action
CP 1 (1) Objectives, Autonomy, Powers and Resources	Adopt legislative changes that would remove the MOF's influence over the CBK's decisions on licensing, closure, and certain other remedial actions.
CP 3 Licensing Criteria	Create a level playing field with Islamic banks and submit the major shareholders of conventional banks, including their ultimate beneficial owners and others that may exert significant influence, to the fit and proper test.
CP 8 Credit Risk	Migration of compliance-based supervision to risk-based supervision. Address staffing issues by hiring additional experienced staff. Shorten on-site supervision cycle (12-18 months instead of current 30 months). Organize comprehensive ICAAP on-site examinations.
CP 10 Large Exposures Limits	Refer to recommended action for CP 8. Perform periodic stress tests of real estate and other major sectoral credit risks concentrations and review existing assessment of the way banks consider these risk concentrations in their ICAAP.
CP 11 Exposures to related parties	The supervisor should reduce the individual and the aggregate maximum limits for bank exposure to related parties. Enhance the legal framework to prohibit conflict of interests.
CP 13 Market Risk	The four recommendations under CP 8 regarding credit risk are also relevant for market risk.
CP 14 Liquidity Risk	The four recommendations under CP 8 regarding credit risk are also relevant for market.
CP 15 Operational Risk	The four recommendations under CP 8 regarding credit risk are also relevant for operational risk.
CP 16 Interest Rate Risk in the Banking Book	The four recommendations under CP 8 regarding credit risk are also relevant for interest rate risk in the banking book.
CP 20 Supervisory Techniques	The four recommendations under CP 8 regarding credit risk are also pivotal for the supervisory techniques.
CP 23 Corrective and Remedial Powers	The existing framework for dealing with problem banks has to be completed by a special resolution system for financial institutions.

APPENDIX IV. STRESS TESTING TABLES

Appendix Table 3. Kuwait: Macro Scenarios Stress Tests and Results

	Baseline		Scenario 1		Scenario 2	
	2009	2010	2009	2010	2009	2010
I. Key Assumptions						
Macroeconomic						
Total real GDP growth (%)	-4.4	1.9	-4.4	-5.9	-4.4	-10.3
Oil	-11.4	1.0	-11.4	-11.2	-11.4	-15.8
Non-oil	0.0	2.5	0.0	-2.5	0.0	-7.1
Inflation (%)	4.0	4.0	4.0	-0.4	4.0	7.5
Oil prices (USD per barrel)	58.2	73.0	58.2	39.4	58.2	29.0
Exchange rate depreciation (%)	0.0	0.0	0.0	10.0	0.0	25.0
Interest Rate Increase (%)	-0.5	0.0	-0.5	3.0	-0.5	6.0
Memo items:						
Stock market index (change in % y.oy.)	-10.0	0.0	-10.0	-30.0	-10.0	-50.0
Banks' Balance Sheets						
Non performing loans						
NPL ratio (%)	9.7	12.1	9.7	17.0	9.7	18.5
Change in NPL ratio (percentage points)	4.4	2.4	4.4	7.3	4.4	8.8
Provisions 1/						
In percent of NPLs	51.1	48.2	51.1	51.7	51.1	53.5
In percent of loans	3.7	5.5	3.7	8.3	3.7	9.4
Percentage increase	50.0	17.5	50.0	77.1	50.0	99.4
Change in Operating Non Interest Income (%)2/	2.0	2.0	2.0	-4.0	2.0	-10.0
Banks's nominal credit growth (%)						
Banking system	6.0	6.0	6.0	0.0	6.0	-4.0
II. Impact Analysis						
Capital Adequacy						
Banking system						
No. of banks with <0	0	0	0	0	0	1
No. of banks with 0%-8%	0	0	0	1	0	4
No. of banks with 8%-12%	0	0	0	4	0	2
No. of banks with >12%	10	10	10	5	10	3
Top 5 banks						
No. of banks with <0	0	0	0	0	0	0
No. of banks with 0%-8%	0	0	0	0	0	3
No. of banks with 8%-12%	0	0	0	3	0	1
No. of banks with >12%	5	5	5	2	5	1
Liquidity						
Number of Illiquid banks after liquidity shock 3/	0	0	0	0	0	0
Number of illiquid Top 5 banks	0	0	0	0	0	0
Recapitalization requirements						
Capital required to achieved 12% (in billions of KD)						
In percent of GDP	0.0	0.0	0.0	1.0	0.0	3.8
In percent of regulatory capital	0.0	0.0	0.0	5.7	0.0	22.8

1/Excluding dividends and valuation gains.
2/ The liquidity stress test assumes a 10 percent withdrawal of demand deposits and a 5 percent withdrawal of time deposits. A bank is considered illiquid when the sale of its liquid assets and a limited share of its illiquid assets do not cover the withdrawal of demand and time deposits during that day.

Appendix Table 4. Kuwait: Summary of Single Factor Stress Tests (Based on December 2009 Data)

	Number of banks 1/				CAR 2/		Top 5 banks 3/		Total system		Recapitalization needs 4/	
	CAR <0	CAR 0-8%	CAR 8-12%	CAR >12%	Worst	Best	CAR	change (%)	CAR	change (%)	in KD millions	in % of GDP
A. Baseline (before shocks)	**0**	**0**	**0**	**10**	**14.4**	**55.3**	**15.8**		**17.2**			
I. Credit Risk												
a. Single Factors												
Deterioration of 20% of performing loans to Real Estate/Constuction Sectors	0	0	1	9	12.0	54.8	13.5	-2.3	15.0	-2.2	0.3	0.0
Deterioration of 40% of performing loans to Real Estate/Construction Sectors	0	2	3	5	6.5	54.2	11.2	-4.7	12.7	-4.5	381.1	1.2
Deterioration of 20% of performing loans to Investment Companies	0	0	1	9	9.4	54.5	14.9	-0.9	16.3	-0.9	16.0	0.0
Deterioration of 40% of performing loans to Investment Companies	0	1	0	9	3.7	53.7	14.0	-1.8	15.3	-1.9	50.2	0.2
Deterioration of 20% of performing loans for Equity Purchase	0	0	0	10	13.8	55.3	15.1	-0.8	16.5	-0.8	0.0	0.0
Deterioration of 40% of performing loans for Equity Purchase	0	0	0	10	12.6	55.3	14.3	-1.5	15.7	-1.5	0.0	0.0
II. Market Risks												
Exchange Rate Risk												
Direct Impact of 10% KD depreciation on Net Open Position (USD)	0	0	0	10	14.4	54.9	15.8	0.0	17.2	0.0	0.0	0.0
Direct Impact of 25% KD depreciation on Net Open Position (USD)	0	0	0	10	14.4	55.1	15.8	0.0	17.3	0.0	0.0	0.0
Interest Rate Risk												
Impact of 300 bps increase in interest rates on Net Interest Margin	0	0	0	10	13.6	56.1	16.0	0.2	17.4	0.1	0.0	0.0
Impact of 600 bps increase in interest rates on Net Interest Margin	0	0	0	10	12.9	57.0	16.1	0.3	17.5	0.3	0.0	0.0
Equity Risk												
30% Decline in Equity prices	0	0	2	8	9.9	53.5	12.8	-3.0	14.5	-2.8	122.6	0.4
50% Decline in Equity prices	0	2	1	7	6.6	52.2	10.6	-5.2	12.5	-4.7	516.7	1.6
Memo Item: GDP		31,943.2										

1/ Of the ten individual banks subject to the stress tests, number of banks that fall below minimum requirements.

2/ Worst/Best correspond to the highest/lowest CAR of 10 individual banks covered in the stress tests before and after the shocks.

3/ The 10 and 5 largest banks account for 97%, and 76% of total assets respectively.

4/ Total Recapitalization need to restore the CAR of the banks covered by the stress tests to the minimum requirement of 12 percent.

5/ The single factor stress tests do not account for a profit buffer and assume a fifty percent haircut on collateral for the sectoral credit risk tests.

Appendix Table 5. Kuwait: Estimation Results of Panel Macrofinancial Model

	Coefficient		Baseline Change in Magnitude	Baseline Contribution to Change in NPL	Scenario 1 Change in Magnitude	Scenario 1 Contribution to Change in NPL	Scenario 2 Change in Magnitude	Scenario 2 Contribution to Change in NPL
Real nonoil GDP growth (lagged)	-0.7	***	-6.5	4.5	-6.5	4.5	-6.5	4.5
	-4.1							
Oil Price	-0.1	***	14.8	-2.2	-18.8	2.7	-29.2	4.3
	-4.7							
Total change in NPL				2.4		7.3		8.8

R-squared: 0.72

t-statistics are in italics, ***significant at 1% level

Appendix Table 6. Investment Companies Stress Analysis Assumptions

Defaults in Bonds & Loans and Decline in Value of Other Assets

	Scenarios		
Assets	Mild	Moderate	Severe
		Decline in Value	
Cash instruments	0	0	0
Stocks		Decline in Value 1/	
Domestic	15	33	66
Other GCC	15	33	66
US (and Canada)	10	19	38
UK	15	14	28
EMU	10	20	30
Other Mature Europe	10	20	30
Mature Asia	10	18	36
Emerging Markets	10	20	40
Bonds and loans and advances		Loss in bonds and loans	
Of which: domestic	10	20	30
Other GCC	10	20	30
Other	10	15	20
Real Estate		Decline in Value	
Domestic	15	25	40
Other GCC	15	25	40
US	10	15	20
UK	10	20	30
EMU	10	15	20
Emerging Markets	10	15	20
Other	10	15	20
Private Equity		Decline in Value	
US (and Canada)	10	15	30
Europe	10	15	30
Other Mature Markets	10	15	30
Emerging Markets	10	15	30
Hedge Funds	10	30	60
Other assets	10	15	20
Decline in total assets due to losses in assets	15	20	25
Decline in commission, dividend and rental income	10	15	20

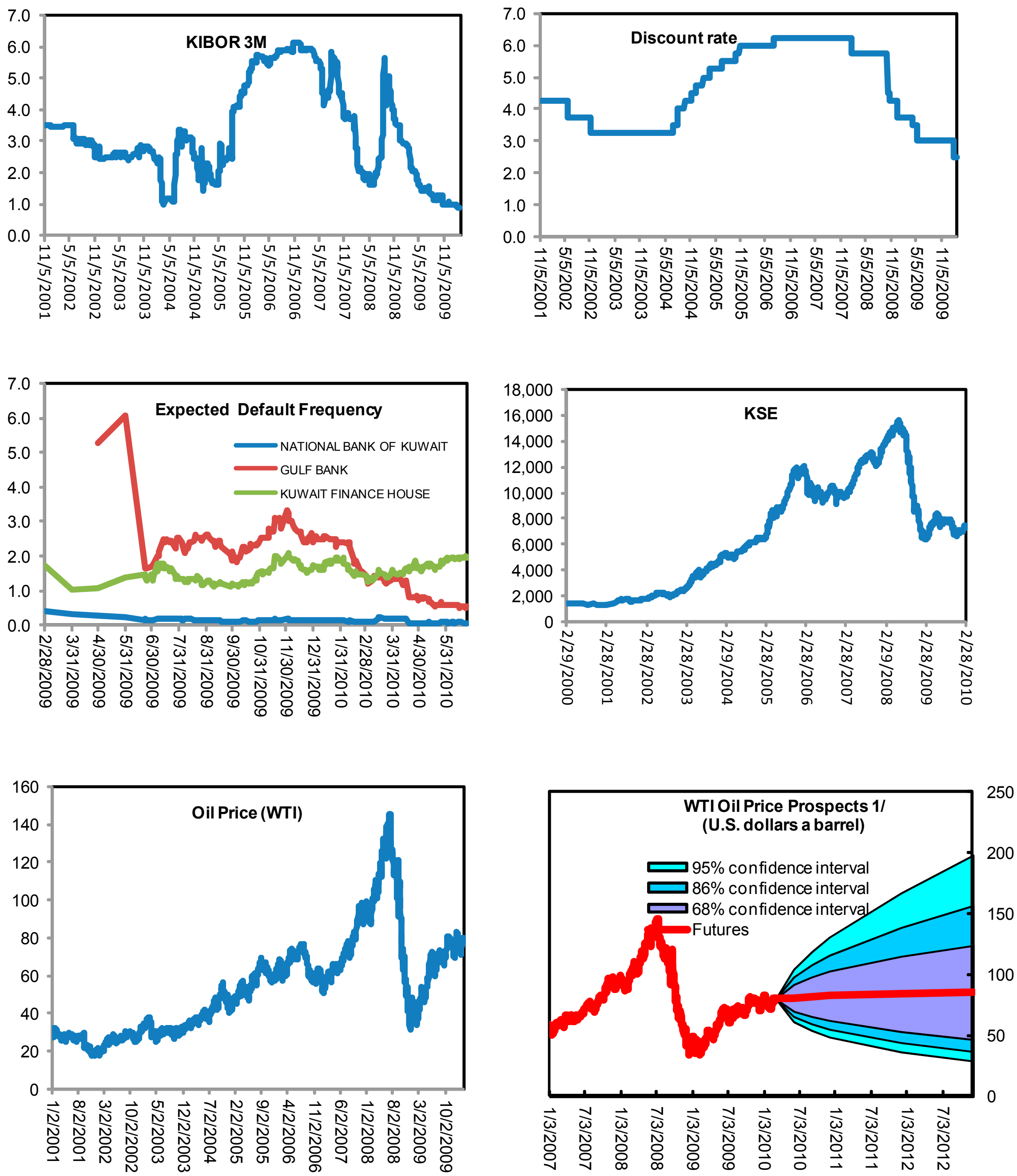
1/ A decline in value (in the moderate and severe scenarios) is based on using annual returns for indexes representing each asset class. We assume the index decline by one standard deviation under the moderate scenario and 2 standard deviations under the severe scenario. We assume KSE and GCC indices volatility similar. The decline for Other Mature Europe (EMU) is based on expert judgment.

Appendix Table 7. Summary of ICs Stress Analysis Results

	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	IC9	IC10	IC11	Total	# of ICs with zero capital
Capital to Assets Ratio (Leverage Ratio; in percent)													
Baseline (2009)	27.9	48.9	37.4	17.3	29.7	80.9	41.4	18.6	26.8	25.2	42.8	32.3	0
Mild	15.6	36.8	24.5	16.6	8.6	83.4	38.2	15.7	7.8	6.3	32.2	20.2	0
Moderate	7.4	21.4	13.9	8.1	(7.8)	77.0	28.4	9.3	(4.1)	(7.8)	24.3	9.4	3
Severe	(6.2)	(8.6)	(6.1)	(4.9)	(37.6)	52.7	4.4	0.5	(26.3)	(32.2)	9.7	(10.9)	8
Capital in Million KD													Total
Baseline (2009)	174	118	113	36	190	189	114	103	223	67	84	1411	2821
Mild	82	76	63	29	47	166	89	74	56	14	54	0	749
Moderate	37	41	34	13	-40	144	62	41	-27	-16	38	0	328
Severe	-31	-17	-15	-8	-192	99	10	2	-175	-68	15	0	-380

Souce: CBK data and staff assumptions and calculations.

Figure 5. Kuwait's Market Indicators 2001-09



Source: Bloomberg, Moody's KMV, and IMF WP "A New Framework To Estimate The Risk Neutral Probability Density Functions Embeded in Options Futures.