October 2009
IMF Country Report No. 09/308

Cyprus: Financial Sector Assessment Program—Financial System Stability Assessment

This Financial System Stability Assessment on **Cyprus** 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 in October 2009. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Cyprus or the Executive Board of the IMF.

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International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

Cyprus

Financial System Stability Assessment

Prepared by the Monetary and Capital Markets and European Departments

Approved by José Viñals and Marek Belka

July 22, 2009

This Financial System Stability Assessment is based on a Financial Sector Assessment Program (FSAP) mission undertaken in September – October 2008. The assessment was discussed during the Article IV consultation mission of June 2009. The assessment took into account recent developments, and this report benefited from data and information obtained during the Article IV mission.

The FSAP team was headed by Karl Driessen, and comprised Martin Čihák, Heiko Hesse (both IMF), Michael Deasy (Irish Financial Services Regulatory Authority), Henning Goebel (BaFin), and Stefan Spamer (Bundesbank). The main findings of the assessment were:

- The banking system—large at 690 percent of GDP–has managed to avoid the worst effects of the global financial crisis, but stress tests confirmed that credit risk remains high. High exposure to the struggling real estate and construction sectors, and the likelihood that loan quality will deteriorate warrant maintaining capital buffers above the regulatory minimum and managing risks carefully. Given the prominent role of foreign deposits in banks, careful liquidity management will be crucial.
- Work on the crisis contingency framework should be completed. Various EU-wide and national initiatives are under way, including strengthening deposit insurance (to increase funding and covered amounts), drafting guidelines for emergency liquidity assistance (ELA), and adopting a legal framework for covered bonds to facilitate access to European Central Bank (ECB) refinancing.
- The supervisory framework should be further strengthened, including by: (a) moving toward a single supervisor for all credit institutions; (b) tightening certain prudential practices; (c) making changes in insurance supervision to take account of market and regulatory developments and increase independence; (d) moving to stronger implementation in securities supervision, including carrying out an inspection of the stock exchange; and (e) improving home-host supervisory coordination.

The main author of this report is Karl Driessen, with input from Martin Čihák, Heiko Hesse, and Yinqiu Lu.

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

ASDCS	Authority for the Supervision and Development of Cooperative Societies
ASE	Athens Stock Exchange
BCP	Basel Core Principles for Effective Banking Supervision
CAR	Capital adequacy ratio
CBC	Central Bank of Cyprus
CCB	Cooperative Central Bank
CRD	Capital requirements directive
CSE	Cyprus Stock Exchange
CSL	Cooperative Societies' Law
CySEC	Cyprus Securities and Exchange Commission
DC	Domestic consolidation
DCCB	Domestically-controlled, cross-border consolidation basis
DD	Distance-to-default
ECB	European Central Bank
ELA	Emergency liquidity assistance
EU	European Union
FSAP	Financial Sector Assessment Program
FSI	Financial soundness indicators
FX	Foreign exchange
IAS	International Accounting Standards
IBUs	International banking units
ICCS	Insurance company control service
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPO	Initial public offering
LTV	Loan-to-Value
MiFID	Markets in Financial Instruments Directive
MoF	Ministry of Finance
MoU	Memorandum of understanding
NPL	Nonperforming loan
OFC	Offshore financial center
ROA	Return on assets
ROE	Return on equity
RWCAR	Risk-weighted capital adequacy ratio
SI	Superintendent of insurance
SIF	Social insurance fund
SRO	Self-regulating organization
UCITS	Undertakings in collective investment transferable securities

EXECUTIVE SUMMARY

The Cypriot banking system has managed to stay on the sidelines of the global financial turbulence, but credit risk remains high. Banks have high exposure to the struggling real estate and construction sectors—Cyprus has one of the highest household debt-to-GDP ratios (122 percent to GDP at end-December 2008), and loan quality will be affected as the global slump is now hitting Cyprus. Supervisors should ensure that banks' capital cushions remain ample— above minimum regulatory requirements—in the period ahead. Bank liquidity has fallen somewhat, but banks' liquidity situation remains comfortable thanks to their reliance on deposits and relatively prudent liquidity management practices. The authorities' strict liquidity regulations remain appropriate in view of the global turmoil. Stress tests confirm that credit risk remains the key source of risk for banks. Banks are resilient to medium-size shocks, but under extreme shocks they would require significant capital injections. One extreme but plausible scenario implies costs of around 10 percent of GDP.

Work on the contingency framework should be broadened and accelerated. The Cypriot authorities' memorandum of understanding (MoU) on crisis management provides a good foundation. The framework would be improved by bolstering the deposit insurance schemes (an amendment increasing funding and coverage is currently before parliament), developing operational guidelines for ELA, undertaking crisis simulation exercises, further strengthening home-host coordination arrangements in the context of EU initiatives, and carefully reviewing the bank resolution framework. Also, the authorities should continue to upgrade their stress testing: the existing methodology can be improved in several areas, especially with respect to modeling credit risk in banks' loan portfolios and broadening the coverage. In addition, in light of the turmoil in the financial markets, the Central Bank of Cyprus (CBC) should continue to closely monitor developments in banks' liquidity. In this regard, the development of a legal framework for covered bonds would be helpful to facilitate banks' access to ECB refinancing facilities.

Building on recent progress, the authorities should complete the implementation of the new banking supervision framework, streamline the supervisory architecture for credit institutions, and strengthen prudential norms. Staffing levels and expertise in both the CBC and Authority for the Supervision and Development of Cooperative Societies (ASDCS) have been boosted, the European Union (EU)'s Capital Requirements Directive (CRD) has been successfully put in place, and the Cooperative Central Bank (CCB) has taken on a new role as central body for most credit cooperatives. Overlap between supervisors must be addressed in the context of the redesign of the supervisory architecture—a single supervisor for all deposit-taking institutions would enhance the effectiveness and efficiency of supervision and maintain a level-playing field.

Similarly, significant reforms have been introduced in insurance regulation and supervision, but further strengthening is needed to take account of market and regulatory developments, and to address continued weaknesses. These measures include increasing independence for the insurance supervisory agency, decreasing concentration risk, and extending the recently started practice of conducting full-scale on-site inspections.

In the securities sector, regulations have been now aligned with the EU Markets in Financial Instruments Directive (MiFID), and focus should shift to implementation. There is a comprehensive legislative framework in place for the supervision of the securities sector in Cyprus, largely based on EU law. The securities supervisor appears to be carrying out its function in an effective manner, but it should proceed with an onsite inspection of the stock exchange to ensure the exchange is well positioned to implement its strategic vision; in that context, government ownership of the stock exchange should be re-examined. Also, particular attention should be paid to market intermediaries that are foreign-owned and provide services largely to overseas clients.

The large cross-border exposures of domestic financial institutions put a premium on effective home-host supervisory coordination. Operational cooperation with the Greek supervisors is being intensified in view of the important interlinkages. Initiatives by the Committee of European Banking Supervisors on enhanced supervisory cooperation, including with non-EU supervisory agencies, are welcome.

Over the medium term, integration of the various supervisory agencies beyond those for deposit-taking institutions should be considered. Given the strong cross-sectoral linkages and the small absolute size of the financial sector, a case can be made for greater integration of the supervisory agencies. However, making the transition from one supervision structure to another can be disruptive, and needs to be carefully considered. Any potential restructuring in Cyprus must include greater supervisory independence, better information sharing, and adequate resources.

CyStat should collect statistics on borrower incomes and balance sheets to enable better analysis. The establishment of a credit registry that would enable sharing of positive information about borrowers would help improve credit decision-making by banks and lower credit risk; the Association of Cyprus banks is currently working on this.

PRIORITY RECOMMENDATIONS

MEASURES 1/	STATUS	TIMING	PRIORITY 2/
Financial System Stability			
Maintain ample capital buffers to offset expected credit risk deterioration	New recommendation	ST	High
Maintain prudential stance on liquidity	Continued	ST	High
Closely monitor liquidity developments in banks	Implemented	ST	High
Strengthen the financial stability function at the CBC		ST	High
-increase resources	Not started	ST	High
-extend stress testing coverage of institutions and risks	Started	ST	High
CyStat to compile reliable data on household debt, debt service, income; and real estate prices	Started	ST	Medium
Crisis Preparedness and Management			
Enhance deposit insurance schemes (funding, coverage)	Draft laws ready	ST	High
Develop operational guidance for ELA	Started	ST	High
Establish legal framework for covered bonds	New; started	ST	High
Clarify bank resolution framework		ST	High
-check consistency of Banking and Corporate Laws	Not started		
-develop crisis management law consistent with EU Guidelines	Started		
Conduct crisis simulation exercises	Not started	MT	High
Improve remedial action framework	Draft law	MT	Medium
Banking Regulation and Supervision			
Tighten prudential norms on connected lending	Implemented	ST	High
Increase and extend monetary penalties	Implemented	ST	Medium
Supervise credit institutions by single supervisor	Not started	MT	Medium
Insurance Regulation and Supervision			
Increase independence of insurance supervisor	Not started	ST	High
Tighten prudential norms on concentration risk	Started consultations	ST	High
Capital Market Regulation and Supervision			
Carry out onsite inspection of the Stock Exchange	Not started	ST	High
Focus on foreign-owned intermediaries with overseas clients	Started	ST	High
Regulatory and Supervisory Architecture			
Consider creating an integrated supervisory agency	Not started	MT/LT	Medium
Consider integrating supervision of pensions	Not started	MT	Medium

1/ Appendix III lists detailed FSAP recommendations.
2/ ST—Short term: Immediate action recommended; MT—Medium-term: Action within one year recommended.

I. INTRODUCTION

1. **The 2008 Financial Sector Assessment Program (FSAP) mission to Cyprus took place against a background of rapidly spreading spillover into Europe of the global financial crisis.** The timing of the mission in mid-September 2008 came shortly after the collapse of Lehman Brothers, and coincided with the (near) failure of several European financial institutions and the broad-ranging policy reactions to these events, including the announcement of blanket deposit and other guarantees. These events lent a new urgency to reviewing crisis preparedness and management, as well as analyzing the soundness of financial institutions and possible channels of contagion for the Cypriot financial sector.

2. **Cyprus entered this turbulent period with a relatively solid macroeconomic performance but growing macrofinancial vulnerabilities.** It successfully managed a smooth transition to the Euro on January 1, 2008, although inflation increased from 2.2 percent in 2007 to 4.4 percent in 2008, private sector credit growth became rapid (by 22.7 percent in 2007 and by 28.6 percent in 2008), and the current account deficit grew sharply (to 18 percent of GDP for 2008; Table 1). Growth was robust at 4.4 percent in 2007 and 3.6 percent in 2008. On the fiscal front, the budget balance deteriorated but still registered a surplus of 0.9 percent in 2008, with gross public debt falling well below the Maastricht ceiling of 60 percent.

3. **For a small economy, the financial system is large and complex owing to its traditional role as an international and regional financial center.** It is comprised of commercial banks, cooperative credit institutions, accounting and insurance companies, pension funds, and capital markets, with a high degree of intersectoral integration. As a percentage of GDP, Cyprus' banking sector assets—at 690 percent—are larger than those of the United Kingdom or Switzerland. Cooperative banks are important, with assets around 70 percent of GDP.[1] Foreign banks' presence in Cyprus is significant and increasing, with 38 percent of total consolidated banking assets under foreign control as of end-2008. Bank concentration is high but coming down due to foreign entry. The two largest domestic banks have strong presence in Greece, and have expanded into the emerging European markets. Although taxes were increased and regulations tightened in the wake of EU accession in 2004, the international business sector remains important, owing to Cyprus' geographical

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[1] In the following, "banks" will refer to both commercial banks and cooperative credit institutions, unless specifically noted.

location, an extensive network of over 30 double taxation treaties, and still comparatively favorable tax rates.[2]

II. Key Financial Sector Risks and Vulnerabilities

A. Financial Soundness Indicators

4. **The banking system entered the global slowdown on a relatively strong footing.** After a string of losses through 2003 based on its high exposure to the stock market that collapsed in 2000, commercial banks returned to high profitability, with aggregate return on equity (ROE) and return on assets (ROA) of 37 percent and 2 percent, respectively as of end-2007 (Table 2),[3] on the back of robust interest margins, growing loan portfolios, and contained costs. In 2008, profitability fell slightly as interest margins were squeezed due to enhanced competition of new entrants in the Cypriot market and pressures to provide funding to develop recent foreign acquisitions. In 2009, interest spreads have increased again to counter the effects of sharply lower euribor-indexed lending rates.[4] Overall, banks maintained stable capital ratios in the face of strong credit expansion, with Tier I capital to risk-weighted assets standing at 10 percent as of end-2007, falling to 8.6 percent in 2008. The high profitability ratios have been driven in part by decreasing nonperforming loan (NPL) ratios until recently, but also reflect factors that are no longer in place (commissions on foreign exchange transactions, and the general buoyancy of the real estate sector).

[2] Appendix I provides further background on the financial sector, including supervisory arrangements and existing safety net features.

[3] Although data are not strictly comparable between 2007 and 2008 due to changes in methodology, supervisory information confirms the noted developments.

[4] At the time of euro conversion, variable interest rate contracts denominated in Cyprus Pounds were re-indexed to official or market euro interest rates.

Table 1. Cyprus: Selected Economic Indicators, 2002–08

	2002	2003	2004	2005	2006	2007	2008
				(Annual percentage change)			
Gross domestic product	2.1	1.9	4.2	3.9	4.1	4.4	3.6
Domestic demand	4.4	1.7	6.5	3.1	5.6	7.4	8.7
Private consumption	1.2	2.1	6.3	4.0	4.5	8.2	7.9
Public consumption	6.9	6.0	-5.5	3.4	7.4	0.1	5.4
Gross investment	14.5	-3.8	20.1	0.0	7.7	11.2	14.0
Exports of goods and nonfactor services	-4.8	-0.7	5.1	4.7	3.9	7.2	-2.2
Imports of goods and nonfactor services	-0.9	-1.0	9.6	3.1	6.6	12.5	7.6
Potential output	4.2	4.2	4.2	4.2	4.2	3.3	3.2
Output gap	2.4	0.2	0.2	0.0	0.0	1.1	1.5
Employment growth	5.6	1.8	3.0	1.6	2.7	5.8	1.3
Unemployment rate (percent)	3.3	4.1	4.7	5.3	4.6	3.9	3.7
Inflation (CPI index, period average)	2.8	4.0	1.9	2.0	2.2	2.2	4.4
Inflation (CPI index, end of period)	3.1	2.2	3.9	1.4	1.5	3.7	1.8
Inflation (HICP, period average)	2.8	4.0	1.9	2.0	2.2	2.2	4.4
GDP deflator	1.2	5.1	3.2	2.3	3.0	3.4	4.8
				(Contributions to growth)			
Domestic demand	4.3	1.8	6.6	3.2	5.7	7.7	9.3
Private consumption	0.8	1.4	4.1	2.6	3.0	5.4	5.4
Public consumption	1.2	1.1	-1.0	0.6	1.2	0.0	0.9
Gross investment	2.4	-0.7	3.5	0.0	1.5	2.3	3.0
Net exports	-2.2	0.1	-2.4	0.7	-1.6	-3.2	-5.8
				(Percent of GDP)			
Gross domestic investment	18.8	17.4	20.2	19.9	20.8	22.3	24.5
Of which: private	14.5	13.1	16.1	17.0	18.2	19.8	20.8
Gross domestic saving	15.0	15.2	15.2	14.0	13.7	10.6	6.2
General government public finance							
Total revenue	33.1	35.0	38.7	41.2	42.2	46.4	44.9
Total expenditure	37.3	41.0	42.8	43.6	43.4	42.9	44.0
Overall balance	-4.4	-6.5	-4.1	-2.4	-1.2	3.4	0.9
Primary balance	-1.2	-3.1	-0.8	1.1	2.1	6.5	3.8
Structural overall balance			-4.2	-2.4	-1.2	2.9	0.3
Gross public debt 1/	64.6	68.9	70.2	69.1	64.6	59.4	49.4
External sector							
Service balance	26.1	23.4	22.9	22.7	23.6	23.6	20.8
Of which: Financial and insurance services (credit)			1.9	2.2	2.9	4.9	6.7
Tourism (credit)			16.3	16.2	15.8	15.6	14.3
Tourism (debit)			5.8	6.5	6.5	8.5	8.1
Current account balance	-3.7	-2.2	-5.0	-5.9	-7.1	-11.8	-18.3
Of which: trade balance	-27.3	-23.9	-25.7	-25.4	-27.7	-30.3	-32.8
Capital and financial account	4.4	2.1	4.1	4.9	7.1	13.0	18.4
Of which: foreign direct investment, net	5.1	2.4	2.5	3.7	5.3	4.6	2.0
Portfolio investment, net 4/	-5.1	1.9	7.2	-0.8	-0.9	-2.1	-75.5
Of which: other investment, net 4/			-3.7	5.8	9.0	8.4	91.3
Memorandum item:							
Nominal GDP (billions of euros)	11.0	11.8	12.7	13.5	14.4	15.6	16.9
Deposit rates 2/ 3/	4.8	3.8	3.9	4.0	3.5	3.6	3.9
Lending rates 2/ 3/	7.2	6.9	7.6	7.1	6.7	6.7	6.6
Private credit growth			6.0	6.0	12.6	22.0	28.7
Nominal effective exchange rate (CPI, 2000=100)	3.3	5.5	2.3	0.2	0.5	0.7	3.5
Real effective exchange rate (CPI, 2000=100)	3.1	6.6	1.8	-0.1	0.2	0.0	3.6
Real effective exchange rate (ULC, 2000=100)	114.9	125.7	131.5	135.9	139.1	…	…

Sources: Ministry of Finance; Central Bank of Cyprus; World Bank, *World Development Indicators;* and IMF staff projections.

1/ Excludes intragovernmental debt and short-term liabilities of the Central Bank.
2/ For 1-year fixed deposits over EUR 8,543.
3/ Data for 2008 as of May.
4/ 2008 data reflects the transactions between Greek banks and their subsidaries in Cyprus.

5. **Overall, financial soundness indicators (FSI) as well as market indicators for Cypriot banks have lagged their advanced economy peers (Table 3).**[5] Bond spreads, distance-to-default indicators, and z-scores[6] found Cypriot banks weaker than peers. However, the relatively smaller exposure to hard-hit emerging markets has provided some resilience relative to other regional banks.[7]

6. **Supervisors should ensure that banks hold ample capital buffers—above minimum regulatory requirements—to offset high exposure to the struggling real estate and construction sectors**. Although the direct consequences of the current global financial turmoil have been small (a subsidiary of a foreign-owned bank halted new operations in late-2008 after large losses on its derivatives portfolio), some indirect effects are now starting to be felt, notably a deterioration in credit quality since late-2008. As discussed in section II.C, stress tests confirm the importance of this exposure. Together with the deterioration in outlook for banks' emerging Europe subsidiaries, this is reflected in the principal banks' equity prices, which have declined in recent months by 70-80 percent from their peak; the bank distance-to-default (DD) indicators (Figure 1) have recorded a similar fall. Loan quality will depend to a large extent on external developments on account of increasing credit risk both related to mortgage loans to foreigners and to declining tourism. Similarly, collateral may decline in value when real estate prices come down from their historic highs, even if loan-to-value ratios have been tightened and property price adjustments are likely to be gradual. Hence, banks should be conservative in provisioning and possibly suspend dividends until the outlook on the loan portfolio improves, as this would provide a cushion in case additional capital needs arise.

7. **Although banks' liquidity situation remains comfortable, liquidity risk remains high in view of the global turmoil.** Even though money market rates in the Eurozone have come down significantly as a result of forceful ECB policies, considerable uncertainty

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[5] Comparing FSIs across countries should be done with caution because of different methodologies; also, the period under review corresponds to a period in which Cyprus banks were recovering from a large stock market-induced shock.

[6] The z-score measures the number of standard deviations a return realization has to fall in order to deplete equity, under the assumption of normality of banks' returns. A higher z-score implies a lower probability of insolvency risk. Data were compiled in Fall 2008. For details, see FSAP Technical Note on "Measuring Banking Stability in Cyprus" (SM/09/135).

[7] Cypriot banks have substantial long-term exposures to the Greek market, and a small but until recently growing exposures to Southeast Europe and CIS countries. The exposures to the Russian market are through stakes in Russian banks and through business with a large number of Russian-owned companies based in Cyprus. Cyprus is also the largest intermediary for brokerage on the Russian stock exchange, with over 60 percent of volume going through Cyprus.

remains in funding markets. Bank liquidity has fallen somewhat, with an aggregate ratio of customer deposits to (non-interbank) loans at 104 percent at end-2008, down from 122 percent in 2007.

8. **Given the prominent role of foreign deposits in the banking system, liquidity volatility should be countered by prudent liquidity management.** Deposits by non-residents accounted for about 30 percent of banking system deposits at end-2007, and have grown during the current crisis due to Cyprus' "safe haven" status; banks are required to invest at least 70 percent of such deposits into liquid assets. While the CBC's conservative liquidity ratio has served the banks well, supervisors should ensure that banks exceed these regulatory minima to preserve the reputation of the banking system and prevent foreign sentiment from turning negative. Cyprus' dependence on double-tax treaties, especially for foreign short-term deposits, expose it to the risk such treaties might not be renewed; it has already been agreed to renew the treaty with Russia.

9. **Sharply increased counterparty risk to financial institutions has become an important feature of the current crisis, but seems to have peaked.** Since the onset of the financial crisis in the summer of 2007, interbank markets both in the United States and Europe have been severely dislocated at times. Besides liquidity risk, counterparty risk became the main reason why banks were reluctant to lend to each other due to the uncertainty with regard to the exposure to toxic assets of counterparties. With exposures (including through bond investments) of EUR 12.6 billion to other euro area banks and around EUR 12.2 billion to the rest of the world at end-March 2009, counterparty risk remains large, but is diminishing as markets normalize.

10. **Cooperative banks are going through a period of consolidation.** Capitalization ratios and NPL ratios are broadly similar for both commercial and cooperative banks (Table 4). Commercial banks exhibit on average a significantly higher ROA than cooperatives, but the ROAs are much more volatile over time (given that cooperative banks pass on an important part of their returns to customers in the form of surplus and are able to smooth out income over the business cycle, this might explain why cooperative banks have a lower return volatility). For this reason, some indicators of soundness indicate that cooperative banks appear somewhat more stable than commercial banks in Cyprus in 2003–07 (Table 5). These are, however, aggregate numbers that mask substantial differences among individual cooperative banks.

Table 2. Cyprus: Financial Soundness Indicators for Banks, 2003–2008
(In percent)

	2003	2004	2005	2006	2007	2008 2/	
Core Set						CBCSDI	DC
Regulatory capital to risk-weighted assets	11.7	11.4	12.4	12.4	12.8	11.0	…
Regulatory Tier I capital to risk-weighted assets	10.0	9.8	10.0	10.8	10.4	8.6	…
Nonperforming loans net of provisions to capital 2/	99.4	72.0	34.8	20.4	9.0	16.2	7.6
Nonperforming loans to total gross loans 3/	11.3	11.7	7.1	5.4	3.4	3.6	3.2
Sectoral distribution of loans to total loans							
Residents	…	…	47.9	42.6	39.3	39.5	54.0
Loans to Insurance corporations	…	…	…	…	…	…	…
Loans to Domestic and foreign credit instituitions	…	…	…	…	…	…	…
Loans to Non-financial corporations	…	…	19.4	17.4	17.6	21.4	30.2
Loans to Households	…	…	…	…	…	12.4	16.4
Consumer credit 4/	…	…	…	…	…	…	…
Lending for house purchase	…	…	…	…	…	…	…
Nonresidents	…	…	52.1	57.4	60.7	60.5	46.0
Return on assets	-0.3	0.2	0.8	1.4	2.3	1.0	1.6
Return on equity	-4.7	4.3	14.1	25.5	37.3	14.5	18.8
Interest margin to gross income	32.6	46.1	66.2	66.1	55.9	67.9	59.0
Noninterest expenses to gross income	66.6	62.7	59.1	49.0	42.6	52.1	35.2
Liquid assets to total assets (broad measure)	…	…	…	…	…	42.2	43.3
Liquid assets to total assets (core measure)	…	…	29.5	31.1	29.5	27.6	30.3
Liquid assets to short-term liabilities (broad measure)	…	…	…	…	…	53.8	56.8
Liquid assets to short-term liabilities (core measure)	…	…	34.9	37.1	35.9	35.2	39.8
Net open position in foreign exchange to capital	2.9	…	2.0	2.1	1.4	0.8	…
Optional Indicators							
Trading income to total income	4.8	3.9	5.7	7.5	9.1	1.8	11.5
Personnel expenses to noninterest expenses	63.0	64.0	62.2	62.9	57.6	58.1	64.9
Customer deposits to total (non-interbank) loans	127.6	140.9	134.7	132.2	122.7	94.2	103.8

Source: Central Bank of Cyprus.

1/ Data for 2005 onwards are for deposit-takers compiled on a domestically-controlled, cross-border consolidation basis (DCCB) and do not include the cooperative credit institutions and foreign-controlled banks. The ratio of regulatory capital to risk-weighted assets compiled on a cross-border and cross-sector consolidation basis for all domestically-incorporated (CBCSDI) deposit-takers, which exclude the cooperative credit institutions but include the former International Banking Units is 13.4%, 13.2% and 12.5% for 2005-07 respectively. Similarly, on a cross-border and cross-sector basis, the ratio of regulatory Tier 1 capital to risk-weighted assets was 10.2%, 10.2% and 10.3% for 2005-07 respectively.

2/ Data for 2008 and onwards are for deposit-takers compiled on a cross-border and cross-sector for all domestically incorporated (CBCSDI) basis as well as on a domestic consolidation (DC) basis.

3/ The numbers are not fully comparable over time. The threshold for classifying loans as non-performing was changed from 6 months in arrears to 3 months in 2006. Data 2005 onwards are compiled according to the methodology and specifications provided in the IMF "Compilation Guide on Financial Soundness Indicators." The decline in nonperforming loan (NPL) ratios since 2005 reflects stricter lending criteria, repayments and write-offs of NPLs as well as denominator effects (growth in capital/loans).

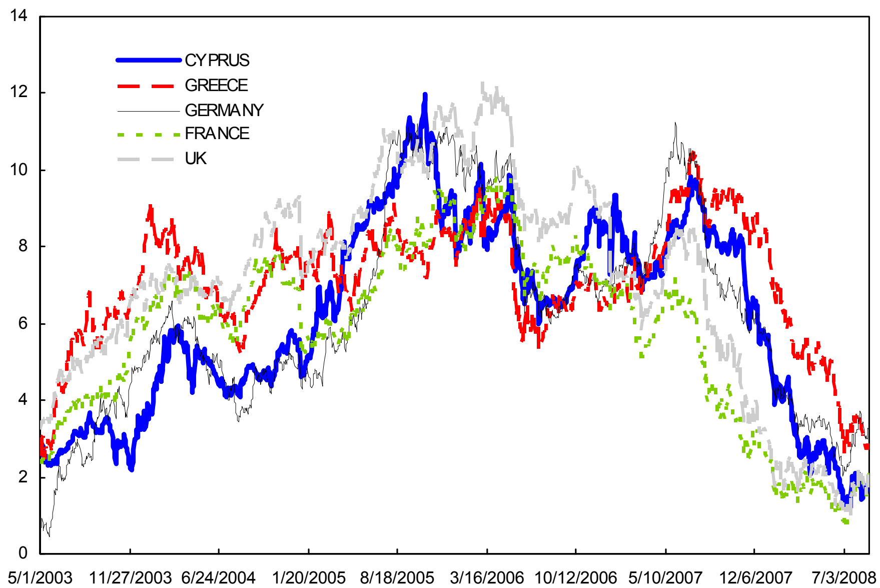
4/ All non-mortgage household loans.

Table 3. Cross-Country Comparison of Financial Soundness Indicators, 2002–07

2002-07 averages (%)	Cyprus	Europe		World
		Advanced	Emerging	
Capital to Risk-Weighted Assets	12.2	12.8	17.8	15.5
NPLs to Total Loans	8.1	2.3	6.5	6.9
Return on Assets	0.6	0.7	1.5	1.5
Return on Equity	10.9	15.4	14.7	15.6

Source: International Monetary Fund, based on data from country authorities.

Figure 1. Bank Distance to Default Indicators



Source: Bankscope; and IMF Staff calculations.

Table 4. Cyprus: Financial Soundness Indicators for Credit Cooperatives, 2003–08
(In percent)

	2003	2004	2005	2006	2007	2008
Core Set						
Regulatory capital to risk-weighted assets	11.1	11.3	12.1	13.8	…	…
Regulatory Tier I capital to risk-weighted assets	11.1	11.3	12.1	13.8	…	…
Nonperforming loans net of provisions to capital 1/	…	…	...	...	…	8.3
Nonperforming loans to total gross loans 1/	…	…	...	...	…	1.9
Residents	…	…	99.9	99.9	99.9	99.9
Insurance corporations	…	…	0.0	0.0	0.0	0.0
Domestic and foreign credit institutions	…	…	27.3	30.8	28.7	20.4
Non-financial corporations	…	…	3.3	3.9	6.2	7.9
Households	…	…	67.4	63.6	63.8	70.5
Consumer credit 2/	…	…	22.7	20.9	20.1	22.0
Lending for house purchase	36.5	…	22.9	22.7	25.0	28.9
Nonresidents	…	…	0.1	0.1	0.1	0.1
Return on assets	-0.1	0.7	0.6	0.7	0.7	0.4
Return on equity	-1.9	10.4	8.4	9.4	9.4	5.0
Interest margin to gross income	162.5	157.3	158.5	151.1	85.7	85.7
Non-interest expenses to gross income	206.0	135.3	135.0	115.6	65.7	81.0
Liquid assets to total assets	29.8	27.2	26.8	29.5	28.5	20.6
Liquid assets to short-term liabilities	31.7	29.0	28.7	26.5	32.7	22.4
Net open position in foreign exchange to capital	…	…	0.0	0.1	-0.2	-0.1
Encouraged Set						
Personnel expenses to non-interest expenses	…	…	...	40.2	40.5	39.1
Customer deposits to total (non-interbank) loans	135.2	129.3	129.2	133.9	131.4	116.9
Large exposures to capital	…	…	...	...	…	…
Spread between reference lending and deposit rates	1.4	2.1	1.8	1.9	1.6	2.1
Residential real estate loans to total loans	36.5	35.0	32.0	32.0	33.3	33.8
Commercial real estate loans to total loans	18.4	18.1	17.5	17.3	16.5	16.9

Source: Authority for the Supervision and Development of Cooperative Societies.

1/ Non-performing loan data available only from 2008.
2/ All loans to households without mortgage on dwelling.

Table 5. Cyprus: Z-Score Decomposition—Commercial vs. Cooperative Banks, 2003–07

	BankScope Data Commercial Banks	FSI Data Commercial Banks	FSI Data Cooperative Banks
Z-score	11.72	12.64	36.92
ROA in %	0.8	0.9	0.5
Capital/ Assets (in %)	6.9	12.0	12.4
St. dev. of ROA (in % points)	0.7	1.0	0.3

Source: author's calculation based on BankScope and FSI Data
Note: For the FSI data, only regulatory capital/ risk-weighted assets was available. The variables in the z-score decomposition in the BankScope data are weighted by total assets.

B. Stress Testing for Banks[8]

11. **Stress tests were performed to assess the resilience of the banking sector to a variety of potential shocks.** The analysis combined single-factor sensitivity calculations and scenario analysis reflecting the interplay of the numerous risk factors influenced by macroeconomic developments, as well as top-down and bottom-up approaches performed by CBC staff, the FSAP mission team, and the largest four banks (Box 1); in addition, spillover risks were studied. The results of the exercises have been cross-checked for consistency, and discrepancies were discussed in meetings between the FSAP team, the authorities, and individual bank representatives.

12. **Among single factor shocks, credit shocks had the largest and most diffuse impact owing to banks' exposure to the real estate market.** This is related to the rapid real estate price increases and high household debt (Cyprus has one of the highest household debt-GDP ratios at 140 percent at end-December 2007—the corresponding EU average was 60 percent). For exchange rate risk, direct losses arising from exchange rate shocks are negligible for most banks, reflecting their very small net open positions in foreign exchange (FX). The direct impact of interest rate changes on banks' soundness is also relatively small. Generally, an increase in interest rates improves banks' situation as their asset size reprices more quickly than their liabilities. Banks' exposure to equity stock prices is very small, reflecting the reduction in their exposures after the stock price bubble of the early 2000s.

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[8] For details, see Appendix IV, and FSAP Technical Note on "Measuring Banking Stability in Cyprus" (SM/09/135); the Technical Note contains results based on end-2007 data.

13. **Stress tests for liquidity risk confirm that the banks would be able to withstand substantial liquidity drain before requiring emergency liquidity support.** The test analyzed how much deposit outflow banks could manage without borrowing from the central bank or from other banks in the system on an uncollateralized basis. The results suggest that banks' liquidity buffers were reasonably high. In one extreme scenario in which (a) 30 percent of demand deposits are withdrawn; (b) banks can use only their liquid assets; and (c) banks have no recourse to other banks or to the lender of last resort, it would take three days for the first bank to become illiquid, and five days for all the major banks to become illiquid. These sensitivity tests only looked at liquidity shocks from the liability side. During the recent financial sector turmoil, it became clear that the liquidity of even "safe" assets could suddenly decline, magnifying the impact from any severe deposit outflow scenario.

Box 1. Bottom-Up Stress Testing by Banks

In addition to top-down stress tests, a bottom-up stress testing exercise involving four major banks was carried out. Banks were asked to based the tests on end-December 2007 positions and, for comparison purposes, also for end-December 2006. These results were subsequently updated for end-2008 data. For all stress tests, it was assumed that there were no other extraordinary sources of income or injections of new capital that would offset the impact of the proposed shocks.

For **interest rate risk**, a number of different shocks were considered, including parallel downward and upward shifts in the yield curve by 200 bps, and a range of joint changes of 3-month and 12-month interest rates (by up to 200 bps and 100 bps respectively). For **exchange rate risk**, the banks were asked to report the impact of a depreciation and appreciation of the euro by up to 30 percent against all other currencies. Concerning **asset price risk**, four basic sensitivity analyses were considered, one of which relates to equity prices (decline by 30 and 50 percent), and the other three relating to real estate prices (various declines in residential and commercial real estate prices by up to 30 percent).

Concerning **credit risk**, a range of sensitivity analyses was considered, with NPL ratios increasing up to 100 percent. The tests also included defaults on a set of largest exposures and on loans to specific sectors. Tests were also run for declines in net interest margin by 0.5-2.0 percentage points.

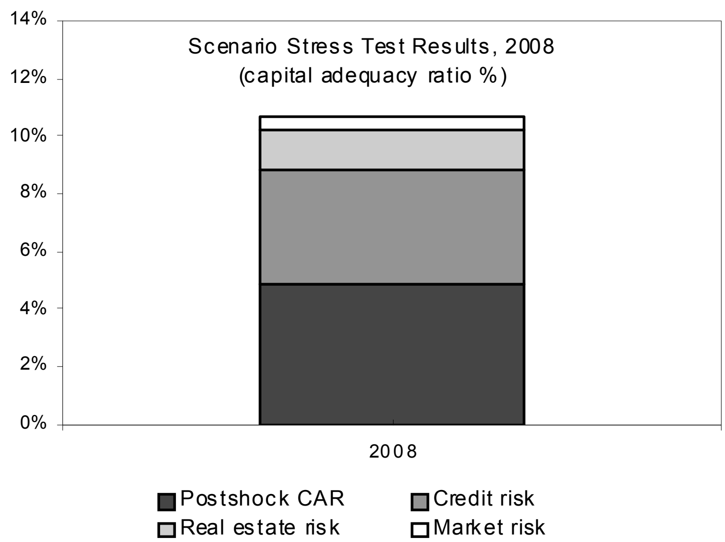
For **liquidity risk**, 4 scenarios were included. The scenarios consisted of several major shocks, including a 30 percent withdrawal in deposits, and 30 percent reduction in the available collateral.

14. **Scenario analysis focused on several combinations of shocks.** Since individual shocks are most likely accompanied by broader macroeconomic stress, scenario analysis was used to study how capital account shocks might affect the economy.[9] Figure 2 shows the

[9] While the scenarios have been informed by Cyprus's recent experience, relationships that worked in the past generally break down during times of dislocation. Accordingly, these scenarios draw on the experience of a wide number of countries that have undergone similar exceptional scenarios.

results of one extreme scenario, which combines an increase in NPLs by 100 percent, a real estate price decline by 30 percent, a decline in interest rates by 200 basis points, an exchange rate appreciation by 30 percent, and equity price decline by 50 percent. The results show that under such a scenario, the aggregate capital adequacy ratio (CAR) would decline to about 4.7 percent, and capital injections equivalent to about 10.5 percent of GDP would be needed to ensure that all banks satisfy the minimum CAR of 8 percent.

Figure 2. Scenario Stress Test Results, 2008



C. Other Financial Stability Issues

15. **For the insurance sector, stress test results prepared by insurance companies demonstrated high concentration risk.** Cypriot insurance companies implemented all scenarios agreed in connection with the stress test exercise (QIS4) of the EU's Solvency II Directive.[10] Overall, the results show a reduction in liabilities due to the proposed change in the basis of reserving requirements to a best estimate approach plus a risk margin, and an increase in capital requirements (by 25 percent on average). The tests also show a sharp increase in capital requirements due to concentration risk charges in capital—almost all solvency ratios go down, with one company showing a solvency margin below 100 percent.

[10] The scenarios included: (a) equity price risk (32 percent fall in prices of listed equities, and 45 percent in other equities and hedge funds); (b) property price risk (fall of 20 percent); (c) interest rate risk (increase/decrease by 100 basis points); (d) credit spreads reduction in value of non-government bonds based on rating duration; (e) mortality risk (increase by 10 percent); (e) permanent disability (increase by 25 percent); (f) longevity risk (reduction on mortality rates by 25 percent); and (g) foreign exchange risk (increase of 20 percent in values of other currencies against euro). Seven companies participated.

16. **The structural lack of profitability of several insurance firms would seem to favor industry consolidation.** This is owing to the small size of these—solvent—firms that are typically part of a nonfinancial group. The supervisor should maintain a healthy insurance sector by tightening the regulatory environment, including by stricter fit-and-proper testing and raising supervisory fees.

17. **The lack of a clear and explicit public debt management strategy raises some concerns.** Given the central role of public debt for the financial sector, and in light of the recent large debt issue, effective management of that debt makes an important contribution to financial stability. While its participation in the broader euro markets allows the authorities to be more opportunistic in its issuance decisions and choices, it does necessitate a larger size issuance in order to compete with other issuers in the region. This creates various challenges with respect to risk management, especially rollover risk, and potentially restricts the authorities' ability to choose an appropriate maturity or duration for the debt portfolio. A debt management strategy should set clear objectives with regard to the use of risk management tools, including derivatives, and cash management policy, including the potential role of the domestic banking and T-bill market in achieving objectives. Overall, a small unit in the ministry of finance (MoF) should set the overall strategy and policy, drawing on support from the CBC as necessary. Ideally any support from the CBC would be provided within the framework of a service level agreement that clearly specifies the respective roles and responsibilities.

III. Crisis Management Framework and Safety Nets

A. Crisis Preparedness

18. **Although there are certain strengths in existing remedial action arrangements, there is scope for further improvements, and authorities are taking steps toward these.** In addition to the national policy response, Cyprus is affected by policies adopted at the regional level (Box 2). The CBC has specific (e.g., removal of bank director or manager) and broad (assumption of control for as long as is deemed necessary without a court order) powers and may impose restrictions on banks to prevent financial deterioration, facilitating the identification of appropriate remedies in a timely response. These elements should be supplemented by (a) explicitly authorizing the CBC to prohibit or limit the distribution of dividends; (b) explicitly allowing the disclosure of remedial action; and (c) the use of quantitative and qualitative supervisory frameworks with more explicit intervention triggers in order to ensure that early remedial action is taken.

19. **Further enhancements to the Cypriot two deposit insurance funds to align them with new EU law are pending parliamentary approval.** Proposed amendments include: (a) increasing the level to the new EU minimum; (b) increasing payout to 100 percent of guaranteed deposits; (c) shortening the payout time by increasing preparedness; and

(d) improve financial strength and coverage by increasing member contributions, supplemental contributions, and borrowing arrangements.

20. **A domestic coordination framework is in place, but needs to be tested.** There is an MoU, under which the CBC, the other supervisory agencies, and the MoF meet quarterly or more frequently. The main powers and responsibilities in crisis management are reasonably clear, and there are adequate provisions for information sharing. However, (a) no simulation exercises have been held to date to test the cooperation arrangement; (b) the role of the minister of finance in accepting contingent liabilities should be more explicit; (c) thresholds for triggering the consultation process in case of possible insolvency between the supervisor and the MoF should be clearly set; (d) the timing, materiality, and who initiates the communication for this process need to be clarified—currently parties are unsure if consultations take place at an early enough stage; (e) no obligation exists to formulate a formal contingency plan; and (f) public responses should be coordinated to avoid confusion and contradictory messages.

Box 2: Regional Crisis Response

In addition to the crisis policy responses of the Cypriot authorities, the European Union (EU) and ECB adopted measures affecting Cyprus, including:

- **Adjusting eurozone liquidity management (ECB)**: to offset market disruption, the ECB adjusted its liquidity management operations, increasing amounts, extending maturities of operations, easing collateral requirements, and increasing the number of counterparties eligible for refinancing. For details, see the "Chronology of Monetary Policy Measures in the Eurosystem in the June 2009 ECB Monthly Bulletin.

- **Harmonizing the deposit insurance framework (EU)**: to prevent destabilizing spillover effects from uncoordinated response measures, European finance ministers agreed in October 2008 to harmonize deposit protection in the EUR 50,000–100,000 range. Discussions are continuing on further improvements in this area.

- **Strengthening the financial stability framework (EU)**: on June 19, 2009, the European Council endorsed a comprehensive overhaul of its cross-border financial stability framework to more effectively monitor, assess, and manage systemic risks through a formal system for macro-prudential oversight (through a European Systemic Risk Board), and enhance trust, efficiency, accountability, and consistency in cross-border micro-prudential supervision (through a European System of Financial Supervisors that will bring together the EU's national supervisory agencies with three new independent, sectoral (banking, securities, insurance), supranational European Supervisory Authorities).

21. **As a member of the EU, Cyprus is embedded in regional cooperation frameworks, and should now deepen operational relations with countries to which its**

financial sector is linked. The regional frameworks include: (a) a notification mechanism in the Eurosystem for ELA beyond a certain threshold; (b) Eurosystem crisis management arrangements that are still developing (which include an established crisis management team at the CBC based on the requirements of the Eurosystem High-Level Task Force on Financial Crisis Management); (c) a recently adopted MoU linking the financial supervisory authorities, central banks, and MoFs of the EU on cross-border financial stability; (d) a MoU among the banking supervisors of South Eastern Europe (Box 3); and (e) cooperation through the Committee on European Banking Supervisors, including on the establishment of supervisory colleges for the largest Cypriot banks. As with domestic cooperation arrangements, the next step is to test their workings. In particular, the authorities' focus on further deepening operational contacts with the Greek banking supervision authorities, given the significant mutual presence, is well-placed.

B. Crisis Management Frameworks

22. **More operational guidance is now being prepared on the modalities for providing ELA outside the ample ECB framework.** While the ECB refinancing facilities are rather broad and should make ELA by the authorities rare under normal circumstances, the CBC should complete preparations. Also, the thresholds for insolvency and for when to seek MoF backing should be set in advance, the principles underlying ELA publicly disclosed, and such operations eventually made public.

23. **Foreign currency liquidity crisis management should be given special consideration in light of the significant collection of U.S. dollar deposits in Cyprus.** Regular ECB refinancing facilities are for euro assets only, although these have been temporarily complemented by access to dollar liquidity. Given the short-term nature of these deposits, the CBC has liquidity requirements in place for such deposits as noted above. Access to regular refinancing facilities by the ECB will be facilitated once the legal framework for covered bonds that is currently being drafted has been adopted.

24. **The bank resolution framework needs to be clarified to ensure there is a well-developed bank insolvency regime in place that emphasizes timely action.** Although the CBC can take control of a bank under the Banking Law—and thus protect assets, assess its true financial condition, and proceed with restructuring—the conditions for undertaking such action are not defined and should be clarified. The authorities have stated that corporate law provides a wide range of modalities for restructuring (e.g., purchase-and-assumption transactions, bridge banks); the ability to use of these powers for bank restructuring should be confirmed. It is important for the supervisor to be given a central role in the insolvency proceedings, and promote information sharing and coordination among all authorities involved.

Box 3. Cyprus: Cross-Border Cooperation Arrangements

The large cross-border activities increase the importance of cross-border cooperation and arrangements. Cyprus, as an EU member, is a party to an elaborate set of bilateral and multilateral cross-border MoUs.

The key elements of the EU-wide arrangements in which Cyprus participates are:

- The 2008 MoU on cooperation between the financial supervisory authorities, central banks, and finance ministries of the EU on cross-border financial stability. It includes common principles on cross-border crisis management, a common framework for assessing the systemic implications of a financial crisis, and common practical guidelines for crisis management. An EU-wide crisis simulation exercise is planned under the auspices of the Economic and Financial Committee to test the procedures set out in the 2008 MoU in practice. The MoU is an extension and update of the 2005 MoU on cooperation between the banking supervisors, central banks and MoFs of the EU in financial crisis situations.
- Participation in the activities of the Committee of European Bank Supervisors, including through the establishment of supervisory colleges for large banks by end-2009 and the implementation of enhanced information sharing, including on liquidity positions of banks. As home supervisor, Cyprus must take the lead in developing closer relations with non-EU supervisors of Cypriot subsidiaries, such as Russia, Serbia, and Ukraine, where it can share its supervisory experience.
- The 2003 MoU on high-level principles of cooperation between banking supervisors and central banks of the EU in crisis management situations applies to crisis situations with a possible cross-border impact. Its main focus is information sharing.
- The 2001 MoU on cooperation between payment system overseers (central banks) and banking supervisors in stage three of the Economic and Monetary Union.
- Eurosystem crisis management arrangements (which include an established crisis management team at the CBC based on the requirements of the Eurosystem High-Level Task Force on Financial Crisis Management).

25. **The CBC has increased its ability to conduct regular stress tests of the banking system; some further improvements would put its financial stability work on even firmer footing.** Overcoming data issues is crucial for many (but not all) of the proposed improvements in the stress testing framework. It would be useful to involve the major banks in the calculations on a regular basis (as was done in the FSAP), to help make the bottom-up stress tests more realistic. The specific recommendations include issuing specific guidelines to banks on stress testing with a view to monitoring stress test results in major banks on a systematic basis, including counterparty risk stress testing, deepening the analysis of the mortgage loan portfolio, extending stress testing to cooperatives, and developing an early warning system model for banks that could be cross-checked with stress testing results.

IV. Supervisory and Regulatory Framework

26. **Earlier Offshore Financial Center (OFC) assessments found shortcomings in the supervision of cooperative banks and nonbank financial institutions.** The 2005 OFC

assessment found the Cypriot financial system in the middle of reform prompted by EU accession. Supervision of the banking sector was judged competent, and had been enhanced by changes in legislation and regulation to meet the requirements of EU accession. However, the assessment found that accession had exposed some gaps in skills and resources of the supervisors for the cooperative credit institutions and insurance companies. The securities supervision authority was found to be well-staffed with the requisite skills, but lacking an adequate legal framework for cooperation with foreign supervisory agencies under certain conditions.

27. **Since then, the authorities have further strengthened their supervisory and prudential framework (Appendix II).** The regulatory framework covering cooperative banks has been substantially revised to bring it in line with the EU banking directives. Other changes in the EU financial framework, including the MiFID, have been adopted. Upon joining the euro area in early 2008, interest rates and required reserves were lowered, with implications for banking sector liquidity and credit conditions. Pre-emptively, the authorities had tightened liquidity and loan standards before joining, but have since reduced the liquidity ratio from 25 percent to 20 percent, and increased the loan-to-value ratio from 60 percent to 70 percent on vacation home mortgages. Former international banking units (IBUs), which were subject to exactly the same regulatory and supervisory regime as domestic banks and that provided the backbone of the international business sector, now enjoy the same tax treatment as domestic banks and are able to transact with Cyprus residents following amendments to the Income Tax Law in 2002 and the abolition of exchange controls with Cyprus's entry to the EU on May 1, 2004.

A. Supervision of Banks and Credit Cooperatives[11]

28. **The CBC and the Authority for the Supervision and Development of Cooperative Societies (ASDCS) have made impressive progress to strengthen the supervisory framework for credit institutions, and must now focus on implementation.** The transition period for the CRD is now over, and the Banking and Cooperative Societies Laws (CSL) have been modified to ensure full conformity with the acquis communautaire. The regulations have also been updated so that capital requirements are now imposed on the basis of the new approaches laid down in the CRD. As a result, the number of credit cooperatives was brought down sharply to meet the new minimum capital requirements, and the CCB took on the role of central body for most credit cooperatives, exempting them from certain provisions while guaranteeing their obligations. Both authorities have worked to enhance the quality of supervision, inter alia in the organizational area, upgrading the number

[11] For additional analysis, see Technical Notes on Factual Update on Observance of BCP for the CBC (SM/09/131) and ASDCS (SM/09/132) respectively.

of staff and staff expertise. An intensification of on-site supervision is planned, as well as further build-up of staff expertise and skills. The ASDCS will undergo further changes, including expanding the joint inspection program with the CBC (a first joint inspection has taken place), and must also narrowly coordinate its work with the CCB.

29. **Overlap between supervisors must be addressed in the context of the redesign of the supervisory architecture.** An effective system of banking supervision will have clear responsibilities and objectives for each authority involved in the supervision of banks. In the current framework, the CBC and the ASDCS both have responsibilities in the supervision of credit cooperatives. A single supervisor for all banks operating in Cyprus could enhance the effectiveness and efficiency of supervision and would support the creation of a level playing field for all banks. Such an entity should contribute to safeguarding the stability of the financial sector, and should not be given other, potentially conflicting, mandates.

30. **A number of improvements in the supervisory framework have been adopted recently, including the following measures:** (a) a decrease in limits on lending to connected persons; (b) an increase in frequency of prudential reporting of the CAR and large exposures to quarterly; and (c) an increase in the level of and extent of monetary penalties. Work is nearly complete on the organization of risk management, internal control, and audit of smaller credit cooperatives.

B. Insurance Supervision[12]

31. **Significant reforms have been introduced in insurance regulation and supervision since the OFC assessment in 2005.** The regulatory approach appropriately reflects the straightforward insurance market in Cyprus.

32. **Further strengthening is needed to take account of market and regulatory developments, and to address continued weaknesses.** These measures include: (a) increasing independence for the insurance company control service (ICCS), so that it can recruit the resources it needs (including importantly legal and actuarial services) to perform its core duties; (b) decreasing counterparty limits to avoid excessive concentration risk, in a gradual fashion to facilitate balance sheet adjustments; (c) holding regular and planned on-site inspections covering the full range of insurance activities, based on a handbook that needs to be developed; and (d) requiring written confirmation from companies conducting non-domestic business outside the EU that they are in contact with local authorities and that

[12] For additional analysis, see the Technical Note on Factual Update of observance of International Accounting Standards (IAIS) Core Principles of Insurance Supervision (SM/09/134).

all existing standards and regulation are met, and informing respective market authorities in case of non-fulfillment.

C. Securities Regulation[13]

33. **The legislative framework for supervising the securities sector has been updated to reflect developments in EU law.** The securities regulator (the Cyprus Securities and Exchange Commission (CySEC)) was considered professional, skilled and knowledgeable about the subject matter of its responsibilities.

34. **CySEC should now pursue its strengthened mandate and deepen its supervision.** CySEC's recent comprehensive desk review of the Cyprus Stock Exchange (CSE) should be followed by an onsite inspection of the CSE as a matter of urgency to satisfy itself that the CSE is well positioned to implement its strategic vision. The wider question of whether the CSE should be privatized should also be considered. Secondly, in relation to the supervision of market intermediaries, CySEC should pay particular attention to those intermediaries that are foreign owned and provide investment services largely to overseas clients, particularly from a code of conduct (how they interact with their customers) and a 'know-your-client' point of view. Lastly, a number of other largely technical recommendations are scheduled to be addressed in upcoming legislation.

D. Architecture of Regulation and Supervision

35. **The debate over which model is best for organizing financial supervisory agencies has gained much attention in recent years as countries grappled with the need to adapt to changes in financial sector environment.** The distribution of countries across supervision structures has been fairly even, with both advanced and developing countries represented in the spectrum of single integrated to separate supervision authorities. In recent years, however, more countries have adopted a system of integrated supervision by either creating a single integrated regulator for the entire financial system or merging some of the main supervisory functions.[14]

36. **International experience has yet to show that a particular regulatory structure is clearly superior.** There seem to be advantages and disadvantages to any system. There is some emerging empirical evidence that integrated supervisory frameworks are associated

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[13] For more detail, see the Technical Note on Factual Update of observance of International Organization of Securities Commissions (IOSCO) Core Principles of Securities Regulation (SM/09/133).

[14] For details, see the attached FSAP Technical Note "Supervisory Architecture: International Experience and Lessons for Cyprus."

with higher quality of supervision. However, making the transition from one supervision structure to another can be highly disruptive because of the diversion of management resources, the structural reorganizations and the potential loss of staff, experience and focus during the process of change. Thus, while an existing structure may appear to be sub-optimal, the gain from moving to another system may not always be worth the cost of change.

37. **The integrated nature of the financial sector in Cyprus provides a strong argument for a more integrated supervisory structure that is difficult to achieve using the current sectoral approach.** The main segments of Cyprus' financial system are closely integrated through ownership and other financial linkages, with the largest insurance companies and investment firms being owned by the three main domestic banks. Also, there are many similarities in the products and services offered by the various financial institutions.

38. **Given the relatively small size of Cyprus, there are potentially substantial synergies.** Merging the supervisory institutions would among other things allow to reduce duplication in support services (e.g., information technology, human resources, actuarial, and legal services).

39. **The creation of a single financial supervisory authority could therefore be considered in the medium to long term.** The choice whether to create an integrated supervisory agency needs to be based on a careful consideration of the pros and cons, including whether financial sector supervision should fall under three ministries. There is a particularly strong case for integrating prudential supervision of commercial banks and cooperative credit institutions. Both types of institutions take deposits, engage in a broadly similar business, have broadly similar risks, and already operate in virtually the same prudential environment.

40. **To meet the requirements of international standards, any potential restructuring in Cyprus must include:** (a) more independent supervision, supported by a strong governance structure, accountability and transparency; (b) good access by the central bank to the relevant prudential data on individual financial institutions; (c) adequate resources for supervision, including a salary structure that enables the regulatory authorities to attract top-quality staff; (d) a strong regulatory and supervisory capacity; and (e) fewer prudential gaps and a level playing field across financial service industries.

E. Other Issues

41. **The legislative framework for Anti-Money Laundering has been updated recently.** "The Prevention and Suppression of Money Laundering Activities Law," enacted in December 2007 and effective since January 1, 2008, repeals the former law in this area. This new law aims at implementing the EU Third Directive on ML/FT and at addressing the recommendations formulated by the 2006 Moneyval report. The new law expanded

customer due diligence requirements (in particular requiring the identification and verification of beneficial ownership of legal entities) and covers financial institutions and designated non-financial businesses and professions. This includes, inter alia, banking institutions, cooperative institutions, private collective investment schemes, insurance companies, lawyers and accountants. The respective regulatory authorities and professional bodies are designated as the supervisory authority in each case, MOKAS (the unit for combating money laundering) for dealers in precious metals and stones, and for real estate agents. In April 2008, the CBC issued a revised directive to banks, and in May 2008 the ASDCS issued a revised directive to credit cooperatives. In February 2009 similar directives were issued for securities and insurance firms and for lawyers and accountants.

APPENDIX I. STRUCTURE OF THE FINANCIAL SECTOR

Cross-Country Financial Sector Comparison

42. **Given its role as an international financial center, the Cypriot financial sector is larger than many of its country peers while its banking sector seems more concentrated as well as exhibits a lower stock market turnover.** The updated financial development database of Beck, Demirgüç-Kunt, and Levin (2000) is employed to compare Cyprus on different dimensions with high income countries as well as countries in Europe and Central Asia. The amount of private credit and liquid liabilities exceeded GDP in Cyprus in 2006 and serves as an indicator for Cyprus well-developed financial system (Figure 3).[15] But the concentration ratio in Cyprus, here taken as the percentage of assets of the three largest commercial banks, lagged well behind other high income and European and Central Asian countries (Figure 3). The Cypriot banking sector is dominated by a few large players, despite having a relatively large cooperative banking sectors and facing international entrants. There is also some evidence that the stock market turnover ratio in 2005, the value of total shares traded to average real market capitalization, is very low in Cyprus in contrast to the other countries in the sample (See Figure 3). In 2008, only EUR 7 million was on average traded daily on the CSE, down from EUR 16 million in 2007. Only the larger stocks have liquid markets while a significant trading of Cyprus shares also occurs on the ASE after the common platform was established in 2006. Finally, for both the overhead costs and net interest rate margins, Cyprus finds itself in the median range.

43. **Cyprus' financial system is comprised of commercial banks, cooperative banks, insurance companies, pension funds, and capital markets (Appendix Table 1).** These segments are highly integrated (Appendix Table 2). Although taxes were increased and regulations tightened in the wake of EU accession, the international business sector remains important, owing to Cyprus' geographical location, an extensive network of over 30 double taxation treaties, and still comparatively favorable tax rates.

44. **Three publicly-listed commercial banks are at the center of financial groups that dominate the sector.** Together they hold about 54 percent of total non-consolidated banking assets excluding the cooperative banks, and 47 percent of system assets, including the cooperatives. These three banks, all locally incorporated, operate internationally and are in the process of further expanding their foreign presence.

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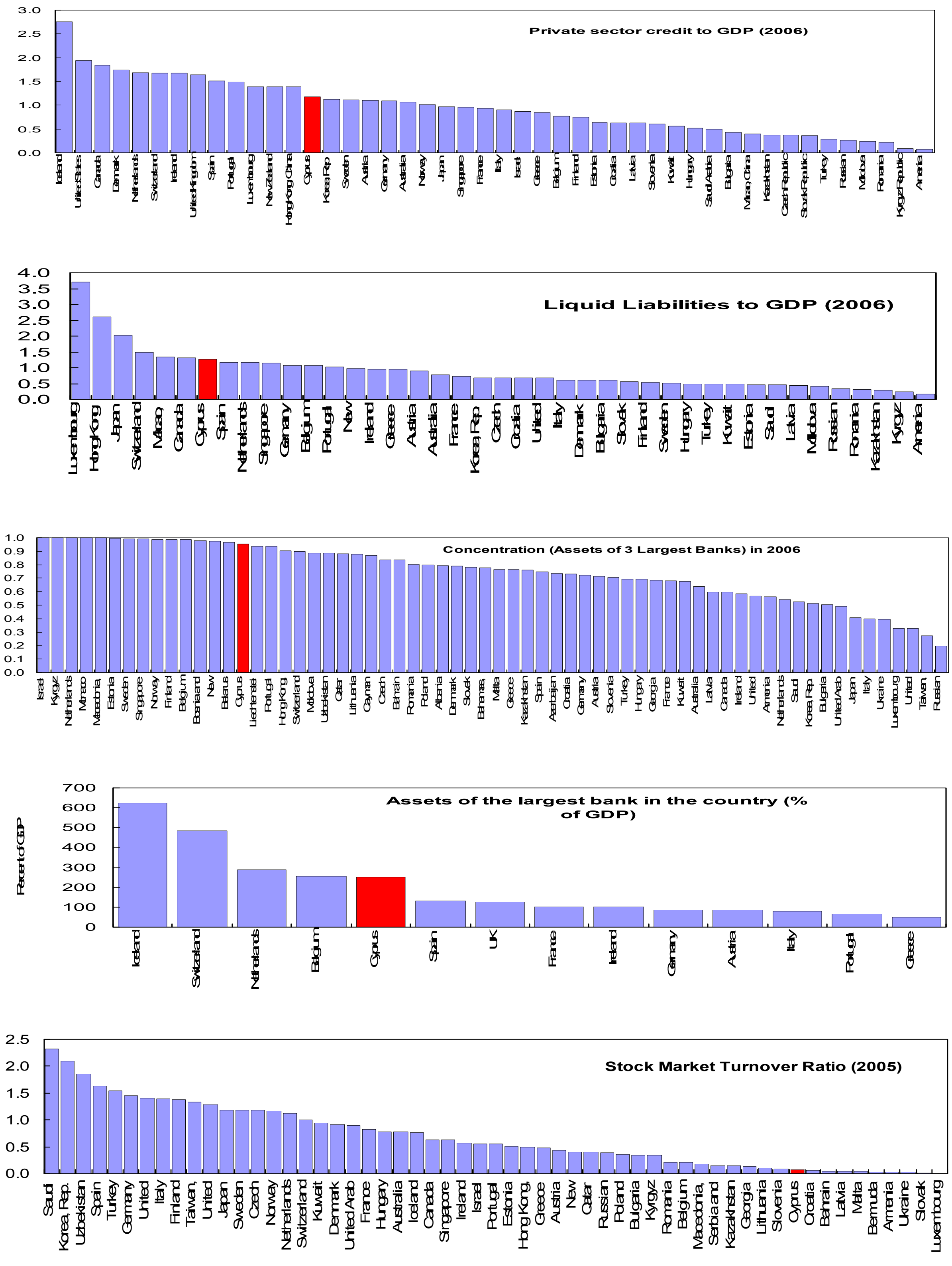
[15] This is supported by the peer comparison of Standard & Poor's (2008) where Cyprus had the highest intermediation capacity of its peers, ahead of Korea and Portugal. The comparative analysis also included Chile, Greece, Italy, Malta, Slovak Republic and Slovenia.

Figure 3. Cross-Country Comparison of Financial Sector Structures



Sources: Beck, Thorsten, Asli Demirgüç-Kunt and Ross Levine, 2000, "A New Database on Financial Development and Structure," World Bank Economic Review, 14, 597-605., IMF staff calculations.

Appendix Table 1. Cyprus: Financial System, 2001–08

	2001	2002	2003	2004	2005	2006	2007	2008
Banking sector								
Number								
Credit Institutions	399	405	403	401	390	333	212	162
Commercial banks	12	14	14	14	14	40	42	43
Of which: Foreign-owned Subsidiaries	3	4	4	4	4	9	10	9
Branches of Foreign Banks	1	2	2	2	2	22	24	26
Specialized Institutions (private)	1	1	1	1	1	1	1	1
Specialized Institutions (state-owned)	2	2	2	2	2	1	1	1
Cooperative credit institutions	363	363	361	358	348	293	170	119
International Banking Units 1/	24	28	28	29	28	…	…	…
Total assets								
Credit Institutions	43.4	41.7	43.0	48.0	61.9	74.7	91.1	116.0
Commercial banks	26.0	27.2	28.3	30.7	38.4	64.5	79.7	104.2
Of which: Foreign-owned Subsidiaries	2.7	2.9	2.9	3.4	4.0	20.3	20.9	29.1
Branches of Foreign Banks	0.5	0.4	0.4	0.4	0.4	4.0	10.4	9.7
Specialized Institutions (private)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Specialized Institutions (state-owned)	1.1	1.2	1.2	1.3	1.4	1.3	1.3	1.3
Cooperative credit institutions	6.0	6.8	7.5	8.1	9.1	10.3	11.4	11.9
International Banking Units 1/	11.5	7.8	7.2	9.2	14.4	…	…	…
Concentration 2/								
Commercial banks	3	4	4	4	3	8	9	8
Cooperative credit institutions	47	50	51	52	51	49	45	41
International Banking Units /1	6	8	9	6	5	…	...	...
No. of bank branches	501	490	476	470	451	468	474	496
No. of bank branches per 100,000 inhabitants	71	68	65	63	59	60	60	63
Insurance sector 3/								
Number	65	58	47	39	39	41	41	…
Life insurance companies	12	12	12	11	11	10	10	…
General insurance companies	53	46	35	28	28	27	27	…
Composite companies	…	…	…	…	…	4	4	…
Total assets	…	…	2.6	2.8	3.4	3.9	4.2	…
Life insurance companies	…	…	2.1	2.1	2.4	2.8	3.0	…
General insurance companies	…	…	0.5	0.7	1.0	1.0	1.2	…
Composite companies	…	…	…	…	…	0.3	0.3	...
Concentration 2/								
Life insurance companies	…	…	4	4	4	4	4	…
General insurance companies	…	…	10	8	8	8	8	…
Composite companies						3	3	...
Securities sector								
Number								
Investment firms (market intermediaries) 4/	…	…	13	44	49	62	65	62
International collective investment schemes	5	8	12	15	22	29	33	...
International financial companies 5/	127	121	59	50	43	…	…	…
of which Financial advisory firms 5/	...	…	50	41	36	…	…	…
international trustee services	10	10	9	9	7	…	…	…
Total assets								
Stock market capitalization	9.7	7.6	7.6	7.8	10.9	12.4	20.2	...
International collective investment schemes	…	0.1	0.1	0.2	0.1	0.3	0.3	…

Sources: Central Bank of Cyprus; Cyprus Securities and Exchange Commission; and Insurance Companies' Control Service.

1/ As from 1 January 2006, former IBUs have been incorporated into aggregate banking system data.
2/ Number of institutions with 75 percent of total assets.
3/ Composite insurance companies and EU branches are not included except for the years 2006 and 2007, the 4 composite insurance companies operating in Cyprus are separately shown.
4/ Firms licensed by CySEC under 2002 investment firms law.
5/ From 2003 international financial companies refer to financial advisory firms plus international trustee services companies.

Appendix Table 2. Three Financial Groups, End-2008

	Commerical bank subsidiaries/branches	Insurance subsidiaries/ branches	Investment banking	Asset management	Other financial	Other
Bank A						
Domestic	Bank A bank	General (1)	Investment banking (1)	Mutual fund (1)	Credit card facilities (2)	Property & hotels (3)
	Bank A mortgage institution (1)	Life (1)	Venture company (1)	Investment fund (1)	Intermediate holding (1)	
Foreign	Greece (branch) Romania (branch) UK (branch)	Greece (general (2) & life (1)	Greece Channel Islands	Greece (mutual fund)	Greece (leasing (1) & financing (1))	Greece (property)
	Channel Islands (subsidiary)				Romaniia (leasing)	Romania (property)
	Australia (subsidiary) Russia (2 subsidiaris) Ukraine (subsidiearis) S. Africa (rep office) Canada (rep office) Ukraine (rep office) Russia (rep office)				Russia (leasing (2)	
Bank B						
Domesitc	Bank B bank	General and life	Investment company	Asset mangement	Factoring	
Foreign	Greece		Greece	Greece	Greece (leasing)	
	Australia		Russia	UK	Greece	
	Serbia Romania Ukraine Russia Malta Guernsey Estonia		British Virgin Islands			
Bank C						
Domesitc	Bank C bank	General (2) Life (1)			Finance, investment, factoring & trust	Building facilities
Foreign	Greece (branch) S. Africa (rep office) Russia (rep office (2)) Ukraine (rep office)	Insurance agency			Trade services, & trust	

45. **Cooperative banking continues to play an important role in the Cypriot banking system.** The cooperative credit sector has been going through a major consolidation in the last 3 years, mostly in response to the new regulatory environment. The number of cooperative credit institutions, which was around 360 in the first half of 2000s, has come down to 116 as of end-2008 (See Appendix Table 1). Cooperatives' overall market share has been broadly stable, at around 10 percent in terms of total assets of deposit-taking institutions (See Appendix Table 1). Borrowing from cooperatives has traditionally been cheaper because of their nonprofit orientation, lower regulatory costs until recently, and exemption from tax on profits generated by operations with members.

46. **Cyprus has a relatively large financial center with a significant international component.** Compared to selected peers (Estonia, Greece, Malta, Portugal, and Slovenia), Cyprus is densely banked: it has the largest number of credit institutions; it ranks among the highest in terms of bank branches and subsidiaries per capita (from EU and third countries), as well as in terms of total bank assets to GDP. Its dependence on customer deposits is relatively high, providing a degree of funding stability. In contrast, the investment fund industry in Cyprus is relative small (Appendix Table 3).

47. **The insurance sector also has domestic and international institutions.** The life market is highly concentrated, with the four largest companies controlling three quarters of premium income. The largest three nonlife companies only controlled 36 percent of premium income. The companies' investments are mainly in debt securities, bank deposits, and money market instruments. The business of the most significant international insurers is based on strong geographic business relationships and favorable tax rates relative to their home jurisdictions. Most of the international business was reinsurance and life business. Life and motor insurance are the two most important areas of domestic insurance activity. In life insurance, unit-linked policies have served as an important savings vehicle in the absence of domestic mutual funds and the presence of capital controls.

48. **In broad terms, the securities sector in Cyprus covers the CSE, market intermediaries, and collective investment schemes.** The CSE is state-owned and has a relatively small number of listed companies. There are 13 listings in the main market (of which the two large banks dominate), 127 supplementary listings as well as 44 government and 10 corporate bond issues. Currently, the CSE mainly deals in equities and bonds. Stock lending and short selling are prohibited. At end 2008, market capitalization was EUR 10.3 billion, down from a figure of EUR 25.3 billion at end 2007 (The fall is attributed to the current market turmoil). The turnover for the CSE for 2008 was EUR 1.5 billion and the average daily was EUR 6.3 million per trading day. (This compares to turnover of EUR 3.9 billion and average daily turnover of EUR 15.7 million for 2007).

Appendix Table 3. Cyprus: Deposit-Taking Institutions, 2000–07 1/

	2000	2001	2002	2003	2004	2005	2006	2007
Commercial banks								
				(Euro million)				
Total assets	21,847	25,541	26,616	28,422	30,469	37,661	46,509	57,991
Foreign assets	5,239	6,394	5,405	6,411	7,580	12,514	17,266	21,435
Advances and Loans	11,570	13,085	14,164	14,848	15,958	17,054	19,980	27,145
o/w: Total claims on private sector	11,142	12,517	13,516	14,196	15,123	16,059	18,641	23,890
Total deposits	17,091	19,621	20,518	20,850	22,403	27,399	32,976	39,911
o/w: Non-resident	6,428	7,517	7,197	7,067	7,883	11,370	14,530	17,357
Foreign liabilities	510	1,026	864	1,149	1,351	2,456	3,107	5,262
Return on Assets 1/	1.5	0.6	-0.1	-0.1	0.3	0.6	0.8	1.3
Cooperative credit institutions								
Total deposits	4,826	5,316	6,007	6,816	7,247	7,890	9,056	10,281
Total loans	4,248	4,307	4,566	5,039	5,602	6,108	6,761	7,811
Total claims on private sector	….	4,135	4,458	4,918	5,157	7,365	….	….
				(US$ million)				
International Banking Units								
Total assets	10,563	10,156	8,138	9,038	12,531	17,081	24,664	33,958
Advances and loans (to customers)	2,659	2,831	2,551	2,484	4,137	5,399	5,827	8,701
Claims on banks	4,927	4,448	3,215	4,151	4,395	6,199	7,991	13,350
Total deposits (from customers)	2,081	2,378	3,013	3,384	3,081	4,871	4,432	7,797
Liabilities to banks	6,210	5,503	3,627	4,503	7,646	10,478	17,788	24,449

Sources: Central Bank of Cyprus and IMF, International Financial Statistics.

1/ Data is on a cross-border and cross-sector (excluding insurance companies) consolidated basis.
For 2006 and 2007 return on assets includes all commercial banks (including former International Banking Units).
The ratio excluding former International Banking Units for 2006 and 2007 is 0.86% and 1.54% respectively.

Appendix Table 4. Structural Indicators of Selected EU Banking Systems, 2006

	Cyprus	Estonia	Greece	Malta	Portugal	Slovenia	EU25
Number of Credit Institutions	336	14	62	18	178	27	8,441
Number of Local Units (Branches)	941	245	3,699	110	5,618	696	212,670
Number of Employees of CIs	10,845	5,681	62,171	3,515	58,213	11,838	3,050,006
Herfindahl Index for CIs**	1,056	3,593	1,101	1,185	1,134	1,300	1,118
Market Share of the 5 largest CIs (in % of total assets)**	63.9	97.1	66.3	71.4	67.9	62.0	59.2
Population (in million)	0.770	1.345	11.116	0.406	10.613	2.008	464.225
Gross domestic product at market price (EUR millions)	14,522	13,074	195,213	5,096	155,216	29,742	11,433,080
Relative to Population (in million)							
Number of branches of CIs from EU countries	5.19	5.20	1.80	0.00	2.17	1.00	1.38
Number of branches of CIs from third countries	22.08	0.00	0.36	4.93	0.09	0.00	0.44
Number of subsidiaries of CIs from EU countries	10.39	2.97	0.90	22.17	0.85	3.98	1.07
Number of subsidiaries of CIs from third countries	1.30	0.00	0.00	2.46	0.28	0.00	0.55
Relative to GDP (EUR Million)							
Total Assets of CIs (EUR millions)	5.12	1.18	1.61	6.00	2.56	1.17	3.22
Loans of CIs to non-financial corporations	0.55	0.40	0.38	0.77	0.61	0.44	0.43
Loans of CIs for housing purchase	0.22	0.32	0.27	0.35	0.59	0.07	0.46
Loans of CIs for consumer credit	0.10	0.04	0.13	0.05	0.07	0.08	0.08
Other household lending from CIs	0.16	0.03	0.01	0.10	0.08	0.04	0.09
Total Loans of CIs to non-CIs	1.21	0.87	0.86	2.77	1.49	0.72	1.32
Total Deposits of CIs from non-CIs	1.65	0.58	1.08	2.17	1.14	0.59	1.09
Gross issues of long-term debt securities by non-financial companies in all currencies	n.a.	0.01	0.02	0.01	0.02	0.00	n.a.
Gross issues of short-term debt securities by non-financial companies in all currencies	0.00	0.00	0.00	n.a.	0.68	n.a.	n.a.
Total assets under management in insurance corporations	n.a.	0.05	0.09	0.23	0.31	0.11	0.63
Total assets under management in investment funds	0.07	0.08	0.09	0.93	0.26	0.10	0.57
Total assets under management by pension funds	n.a.	0.04	n.a.	0.00	0.14	0.03	0.29
Total assets of branches of CIs from EU countries	0.05	0.12	0.16	0.00	0.16	*	0.27
Total assets of branches of CIs from third countries	0.23	0.00	0.00	*	*	0.00	0.15
Total assets of subsidiaries of CIs from EU countries	1.28	1.04	0.44	2.24	0.39	0.34	0.34
Total assets of subsidiaries of CIs from third countries	*	0.00	0.00	*	0.02	0.00	0.11

Source: European Central Bank.
* where the number of branches is less than three, underlying data are not disclosed for confidentiality reasons.
**unweighted average for EU25.

49. **The CSE is planning to expand into new areas.** In October 2006, the CSE entered into an agreement with the ASE, which established a common platform between the two exchanges. The two largest companies on the CSE, the Bank of Cyprus and Marfin Popular Bank are also traded on the ASE. As of June 2009, 45 percent of trades in Bank of Cyprus and 56 percent of trades in Marfin are transacted on the ASE. Discussions are currently taking ongoing with the Romanian Stock Exchange to enhance cooperation between the exchanges. The CSE also hopes to enhance cooperation with other exchanges in surrounding jurisdictions. The CSE is also planning to expand into trading other instruments. It has also decided to cooperate with the ASE to facilitate derivatives trading at the ASE, the underlying securities of which are listed on both exchanges.

50. **All market intermediaries providing investment services (including stock broking) and investment advice are now supervised by CySEC under the Investment Firms Law (which transposed the EU MiFID).** As of end 2007, 67 market intermediaries have been authorized, about 40 of which are owned by Russian interests, 10 by Cypriots and the balance by other overseas interests. The Russian-owned firms largely provide investment services to overseas clients, many in Russia and Ukraine, mainly on a cross border basis.

About 60 percent of all trades on the Moscow Stock Exchange originate in Cyprus due to the favorable double taxation agreement between the two jurisdictions. At the time of the OFC assessment in 2005, the CBC was responsible for the supervision of International Financial Advisory Firms (firms that provided investment advice to non-residents (e.g., U.K. ex-patriates located in the Middle East)). As investment advice is a core activity of the MiFID, these firms are now supervised under the Investments Firm Law and are considered market intermediaries.

51. **There are two types of collective investment scheme regimes in Cyprus (a) the Undertakings in Collective Investment Transferable Securities (UCITS), which are supervised by CySEC; and (b) private investment schemes, which are currently supervised by the CBC.** UCITS and other collective investment schemes currently marketed in Cyprus are targeted at retail investors. Because of the unfavorable tax treatment of UCITS, no UCITS have been authorized to date. Legislation is currently being prepared that is designed to harmonize taxes between shares and UCITS, and will transfer responsibility for supervision of the international investment schemes to CySEC, after which Cyprus would hope to develop a vibrant UCITS industry. The private investment schemes supervised by the CBC were originally targeted at non-resident institutional/sophisticated investors. Following the abolition of exchange controls in 2004, these were opened up also to local institutional/sophisticated investors, although it is understood that the number of such investors is miniscule. There are about 40 of these funds with a net asset value of US$675 million.

Supervisory structure, including deposit insurance

52. **Financial institutions in Cyprus are regulated and supervised by five authorities:** the CBC, which is responsible for the supervision of commercial banks; the ASDCS, supervising the cooperative credit institutions; the SI; the CySEC; and a pension supervisor. At the political level, three ministries are involved in the regulation of financial institutions: MoF; ministry of commerce, industry and tourism; and ministry of labor and social insurance.

53. **The CBC is the supervisor for commercial banks.** Until recently, IBUs, which fell under the same supervisory and regulatory regime as domestic banks, were subject to different exchange control and tax law. In preparation for joining the EU, Cyprus amended its tax laws in July 2002 to introduce a uniform rate of tax (10 percent) on all enterprises, including banks, irrespective of residence of the owner. With the tax reform of 2002, which took effect as from January 1, 2003, IBUs were given the option of either being fully involved in the domestic banking sector by acquiring the right to engage in activities with Cyprus residents and be subject to the same tax rate as domestic banks or continue with their restrictions of not being able to transact with Cyprus residents and enjoy the preferential tax

rate of 4.25 percent until end-2005. All IBUs receive similar tax treatment from end-2005 following amendments to the relevant conditions in their banking licenses.

54. **The legislation governing cooperatives was amended in 2003 to transpose the EU directives on credit institutions.** Cooperatives' regulatory conditions are now similar to those of banks, but they are supervised by a different agency (unlike other cooperative credit movements in Europe). The cooperatives are now expected to conform to the capital requirements and other prudential obligations of EU credit institutions. It is expected that some will prove too small for this to be feasible, and these can opt to be affiliated with the CCB, meeting consolidated prudential requirements. An independent authority, the ASDCS has, since its inception, provided supervision, and development advice, for the cooperative movement in accordance with the CSL. In 2003 the CSL was harmonized with the EU directives—increased requirements for prudential supervision were incorporated and a separate supervisory division created within ASDCS. The governing body of the ASDCS consists of the commissioner and four members appointed by the council of ministers for five years. The staff of the authority consists of the commissioner, four senior officers, 43 officers (including 12 officers on a non-permanent basis) and 20 secretarial staff. Legally, the commissioner has all the usual financial supervisory powers, including the right to conduct on-site inspections and off-site monitoring.

55. **A variety of deposit and other protection schemes are in place—amendments have been prepared to bring them in line with the new EU Directive.** A deposit protection scheme covering all locally-incorporated banks licensed by the CBC which accept deposits from the general public, including their branches operating in the EU, was introduced in September 2000. It was brought into conformity with all EU regulations on May 1, 2004, when the branches of banks from countries outside the EU joined. The deposits of EU branches operating in Cyprus are covered, in accordance with the relevant directive of the EU by the corresponding Schemes operating in their country of incorporation. A fund to protect clients of investment firms was also created in 2004. A deposit protection scheme for credit cooperatives, established by the Cooperative Societies (Establishment and Operation of the Deposit Guarantee Scheme) Rules for 2000 and 2004, has been in operation since 2000. The scheme is reportedly very similar to that of banks and conforms to EU Directive 94/19/EC. In addition to the deposit guarantee scheme, a solidarity fund covering credit cooperatives was introduced in January 2008. An ASDCS Regulative Decision governs the implementation of the Fund in which credit cooperatives' participation in mandatory. The solidarity fund is used to address cooperative institution liquidity or solvency issues at an early stage.

56. **The superintendent of insurance (SI) is supported by the ICCS of Cyprus.** The SI was authorized by the Law on Insurance Services and Other Related Issues (2002), and the staff of the ICCS is governed by the Civil Service Law, while its budget forms part of the

MoF's budget. The SI and the deputy superintendent are appointed by the council of ministers and are both public employees. The service is staffed by nine skilled personnel and seven support staff. Domestic and international companies are similarly regulated and supervised.

57. **At present there are two regulatory bodies in the securities sector, the chief of which is CySEC.** CySEC is responsible for regulating the CSE, retail collective investment schemes and all intermediaries. The CBC retains responsibility for the oversight of nonretail collective investment scheme. However, there is a commitment to present legislation before parliament, which when enacted, will transfer responsibility for the supervision of nonretail collective investment schemes to CySEC. CySEC has a skilled staff of 42.

58. **The Cypriot pension system is composed of a mandatory social security fund and voluntary occupational pension funds and provident funds.** The social insurance fund (SIF), managed by the ministry of labor and social insurance, is a defined benefit plan with reserves of around 40 percent of GDP mostly invested in non-tradable government debt. Since most debt is non tradable, reserves are largely "notional" and de facto the SIF is pay-as-you-go. Among other reforms for the SIF, the authorities have been considering the establishment of an investment function to manage effective reserves of around 10 percent of GDP. Beside the SIF, there is very little longevity insurance in the country mainly provided by central and local authorities, large utilities companies and banks. No data is available on the number of these funds which are believed to be around 70. The largest 50 funds are reported to have unfunded liabilities in the order of USD1.6bln. In addition, it is believed that banks are allowed to keep pension funds liabilities on their balance sheet. The rest of the pension market is dominated by defined contribution provident funds. Around 1,750 funds are in operation on the island with only 100 having more than 100 members. The transposition of the European Commission's directive on the activities and supervision of institutions for occupational retirement provision (2003/41/EC) will require these provident funds to modernize their governance and investment process and only a handful of funds are seeking professional advice to do so. Total assets of both pension and provident funds are estimated at around US$4.5 billion with 60 percent of assets invested in bank deposits, 15 percent in shares and 13 percent in loans. The EU pension directive (2003/41/EC), has been transposed by the introduction of Law 146(I)/2006 covering pension provident funds with more than 100 members. Smaller funds are governed by the provident funds law 44 of 1981. The ministry of labor and social insurance recently established a separate supervisor for occupational and provident funds, but this entity is not yet believed to be fully operational.

Appendix II. Follow-up on Recommendations of the 2005 OFC Assessment

BCP—Banks

Reference Principle	Recommended Action	Status
CP 1.2 Independence	Additional qualified supervision staff is needed.	Since the 2005 FSAP the number of staff of the Banking Supervision and Regulation Division (which now excludes financial stability) increased by two employees. The Division's staff participates actively in training seminars and has extensive experience in all of the CBC's supervisory tasks.
CP 8 Loan Evaluating and Loan Loss Provisioning	Finalize implementation of the more stringent criteria for interest suspension.	Effective 1 January 2006 the 90 days in arrears rule applies and this will be further refined upon the alignment of the calculation of the interest to be suspended with the provisions of the International Accounting Standard 39.
CP 11 Country Risk	Establish formal guidance for a framework for country and transfer risk.	The CBC issued guidelines to banks requiring them to have adequate systems and procedures in place.
CP 12 Market Risks	Improve market risk expertise and supervision.	The CBC issued guidelines on the management of market risk and has recruited an expert in financial modeling.

BCP—Cooperative Credit Institutions

Reference Principle	Recommended Action	Status
CP 1.1 Objectives	Manage changes during the transitional period through a global change committee.	Since 2005 a comprehensive transitional regulatory and supervisory system has been completed that requires every credit cooperative to conform to the EU banking directives from the end of 2007.
CP 1.2 Independence	Full government support of supervisory strengthening capacity.	When the recent recruitment process is completed, staff numbers will stand at 76 compared to 56 in 2005.
CP 2 Permissible Activities	Finalize regulatory decision defining permissible services and activities. Make provision that the term “Cooperative Credit Institution” or any derivative of this term cannot be used without the approval of the ASDCS.	A regulative decision has been issued regarding the services and activities that credit cooperatives can offer and a law was introduced that prohibits the use of the term “Cooperative Credit Institution” or any derivative thereof without the ASDCS Commissioner's approval.
CP 5 Investment Criteria	Finalize regulatory decision regarding participation in other enterprises.	A regulative decision was issued, in accordance with relevant EU directives, in relation to credit cooperatives' participation in entities, both financial

Reference Principle	Recommended Action	Status
		and nonfinancial.
CP 6 Capital Adequacy	Mandatory semi-annual reporting on each credit cooperative's compliance with capital requirements regime.	A regulative decision has been introduced requiring 6 monthly reporting of capital adequacy positions.
CP 7 Credit Policies	Strengthen supervisory capacity. Enhance the supervisors' capacity to evaluate loan policies.	Twenty additional staff have or are in course of being recruited since 2005 and increased training on supervisory matters have also been strengthened.
CP 8 Loan Evaluation	Strengthen supervisory capacity. Provide for additional prudential reporting.	Following the introduction of new software, ASDCS has now access to a wide range of o data for monitoring purposes.
CP 9 Large Exposure Limits	Strengthen supervisory capacity.	Twenty additional staff have or are in the course of being recruited and there has been a significant increase in the number of inspections over the three year period.
CP 10 Connected Lending	Strengthen supervisory capacity. Facilities to connected persons should not be granted on terms more favorable than those used in the normal course of business.	Article 41 KD in amended law 37(I)/2007 prohibits the granting of credit facilities to the members of the credit cooperative's Committee and Supervision Board, to the Secretary/Directors and to the other staff members and their connected persons on more favorable terms.
CP 12 Market Risks	Adjust and develop expertise to supervise new risks.	Credit cooperatives are not currently exposed to market or FX rate risk. Nonetheless, staff have attended seminars and received training on the matter.
CP 13 Other Risks	Strengthen supervisory capacity. Organize accelerated access to centralized reporting system regarding interest rate risk.	The ability to acquire information on a regular basis and analyze such information has been, or is in the course of being, introduced. This will include information on interest rate risk.
CP 14 Internal Controls	Strengthen supervisory capacity. Undertake efforts to encourage mergers favoring critical mass and organizational capabilities of credit cooperatives.	There has been a considerable number of mergers since 2005.
CP 15 Money Laundering	Update guidance note.	A revised directive has been introduced
CP 16 On-site and Off-site Supervision	Strengthen supervisory capacity.	Additional staff and increased training have been introduced to address this issue. In addition, it is proposed to carry out an on-site inspection of all credit cooperatives in 2009/2010.
CP 17 Bank Management Contact	Impose mandatory and timely communication of material changes in activities and adverse developments.	A regulative decision was issued in 2008 requiring all credit cooperatives to notify the Commissioner of all material changes in activities and adverse

Reference Principle	Recommended Action	Status
		developments.
CP 18 Off-site Supervision	Strengthen supervisory capacity. Accelerate direct connection to central data server.	The ASDCS's computerized project is almost complete which will provide it with full access to all credit cooperatives' databases.
CP 19 Validation of Supervisory Information	Strengthen supervisory capacity.	This has been facilitated by the recruitment of the additional staff referred to in Principle 1.2 above.

Insurance Regulation and Supervision

Reference Principle	Recommended Action	Status
ICP 1 Effective Insurance Supervision	Regulation has to be developed to set a framework in which insurance undertakings can operate and in order to create clear expectations from a supervisory standpoint towards the companies.	Since 2005 legal services from the European Public Law Center in Greece have been acquired for further harmonization of the LIS and its Regulations with new EU Directives. The House of Representatives has already approved the new amendments into Law. The LIS and its Regulations constitute the legal framework of the insurance sector in Cyprus.
ICP 2 Supervisory Objectives	Clear objectives and measures should be defined for the SI and the ICCS. The SI and the ICCS should report on their achievements on a regular basis. Moreover, the SI should communicate through regulation how he wants the LIS to be applied.	Since 2005 the "Report on Insurance in Cyprus" has been published annually. Also the SI has issued many instructions through Circulars to Insurance entities regarding the application of the LIS and its Regulations. In this way Insurance entities have a clearer view of their obligations/responsibilities/tasks under the existing legal framework.
ICP 3 Supervisory Authority	The SI has to be granted a budget in order to perform the duties laid out in the LIS. Also, the SI should be charged with producing a plan laying out the priorities for a year. Those plans would set clear expectations for the Council of Ministers and for the staff of the ICCS. Most importantly, there is an urgent need to assess the composition of skills required to properly exercise the powers of the LIS. Whether all those skills identified will have to be allocated within the ICCS remains to be seen. At the time this assessment was carried out, the SI was not provided with resources	Since 2005 and specifically between September 2007 and March 2008, more qualified staff has been appointed for the ICCS by the Civil Service Commission, as follows: ▪ 2 Senior Insurance Officers, who are qualified Actuaries and have been appointed as Deputy Superintendents of Insurance ▪ 2 Insurance Officers A' who are qualified Chartered Accountants ▪ 1 Administrative Officer with accounting and financial academic background ▪ 3 Insurance Officers with economics and financial academic background ▪ 1 Assistant Insurance Officer with academic background

Reference Principle	Recommended Action	Status
	adequate to perform insurance supervision which is able to respond to critical situations.	One more Insurance Officer is expected to be employed by the end of 2008 and one more Assistant Insurance Officer in 2009. All the above-mentioned new staff constitutes a significant addition to the existing professional staff of the ICCS which has in this way almost doubled since 2005. (The clerical staff remained largely the same in numbers since 2005). Also, since June 2008 the ICCS has introduced a complete computerization system.
ICP 4 Supervisory Process	Given the very limited resources of the ICCS, a more efficient way of conducting ongoing supervision would free up capacity for more structural supervisory involvement. Internal procedures of the supervisor should be standardized for more efficient operation. Also, publications should be made available to the public.	The recruitment of additional personnel as described in ICP 3 has created a better organized and more effective staff structure within the ICCS, resulting in a more efficient allocation of duties according to skill specialization and experience. For the purposes of the computerization of the ICCS, a systems specification manual has been prepared listing all internal procedures.
ICP 5 Supervisory Cooperation and information Sharing	There has not as yet been any information sharing since Cyprus joined the EU in May 2004. In 2005, the SI should contact the home supervisors to identify how many of the companies under the FoS have actually started business activities.	Since 2005 the ICCS is exchanging regularly information with other EU supervisory authorities in this respect.
ICP 9 Corporate Governance	Since the number of small and family-owned businesses is substantial, the required control and balance mechanisms are not met for the sector as a whole, even though the corporate governance rules apply to listed companies. Nor is the application of corporate governance supervised or checked. There should be a joint effort to develop governing rules for undertakings in the financial sector. These rules should be developed by all three supervisory authorities.	Technical assistance is necessary for the implementation of this recommended action. The SI has already requested assistance from the Institute of Certified Public Accountants.
ICP 10	Define standards on internal control	The ICCS has collected data with respect to

Reference Principle	Recommended Action	Status
Internal control	as an essential part of sound insurance principles and enforce those standards through reporting and auditing requirements. Internal control procedures should also cover initial procedures for investment decisions and operational risk as it relates to contingency planning.	internal control standards. The issue will be discussed soon with the Institute of Certified Public Accountants within the framework of the assistance already requested by the SI (see ICP 9).
ICP 11 Market analysis	The SI should identify the information about the insurance sector that is required or is of interest to other public services. The SI should also define all information necessary to prepare a market analysis for the insurance sector and determine the process through which this information will be received and updated.	Resulting from the increase of staff referred to in ICP 3, and the computerization of the ICCS, is the increased capacity of ICCS for more in-depth market analysis. The outcome of these developments has become more evident recently when the ICCS was in a position to successfully guide the Cyprus insurance industry in its participation in the Quantitative Impact Study 4 (QIS 4) for the Solvency II Directive which has been initiated by the European Commission. More importantly as far as ICP 11 is concerned, the ICCS has managed to prepare on time the Cyprus Country Report for QIS 4, following extensive stress testing of the insurance companies involved and relevant market analysis.
ICP 12 Reporting to supervisors and off-site monitoring	Company data should be stored electronically once received. Also, companies should be required to submit the relevant forms in signed hard copies and in electronic files in prescribed formats. That would allow the ICCS to have updated information on request without long delays and manual efforts. Also, there should be a procedure to imply some degree of plausibility testing of received data.	Since June 2008 the ICCS has introduced a complete computerization system. The system has a special procedure for testing the plausibility of figures in the Annual Accounting Returns.
ICP 13 On-site inspection	Gain agreement from the MoF to obtain the right to contract third parties to support the carrying out of on-site inspections. Also, develop a plan to perform regular on-site inspections regardless of clear evidence that an inspection is deemed to be necessary.	With the recruitment of new qualified staff as described in ICP 3, the aim is to start regular on-site inspections of insurance companies. The preparation of a manual for on on-site inspections is under consideration. Meanwhile, targeted on-site inspections will continue where necessary, especially following the review of the Annual Accounting Returns.
ICP 14 Preventive and corrective measures	The ICCS should develop a set of regulatory rules which would enable it to prevent a breach in compliance	This proposed measure is now under consideration. However, the ICCS has never taken any preventive or corrective measures without

Reference Principle	Recommended Action	Status
	instead of deciding on corrective measures subsequent to a breach. Although, the emphasis should clearly be on corrective measures, the ICCS should consider whether the development of preventive measures could also contribute to a more efficient allocation of resources within the ICCS.	warning insurance companies in writing and without informing them in advance of the legal consequences following non- compliance with the insurance legislation.
ICP 15 Enforcement or sanctions	The MoF should take steps to improve the independence and credibility of the SI and should therefore review the number of cases in which an appeal is possible. The MoF should review whether the variety of cases in which an appeal is possible should be reduced considerably.	The review of the appeal process is not an issue favored by the insurance industry which wants the appeal process to continue to exist as an intermediate step prior to resorting to courts, because the judicial system in Cyprus is very slow and court decisions are much delayed.
ICP 16 Winding-up and exit from the market	As s157 requires the SI to appoint a liquidator, the ICCS should have a short list of potential candidates in order to shorten the appointment process. That list should be part of the process of withdrawing a license.	The liquidation procedures so far have worked satisfactorily, as far as the appointment of liquidators are concerned.
ICP 17 Group-wide supervision	Incorporate relevant information exchange processes and terms of reference for the coordinator of financial conglomerate supervision into the 2002 MoU among the supervisors.	A relevant MoU for the exchange of information has been signed between the competent authorities of the financial sector in Cyprus. The Solvency II Directive under preparation will incorporate specific terms of reference for the co-ordinator of groups based on which the said MoU will be amended accordingly.
ICP 18 Risk assessment and management	Initial steps toward risk management should be considered when internal control procedures as laid out in ICP 10 are sufficiently regulated and recommendations are implemented through the establishment of sound insurance principles.	The response under ICP 10 is relevant. With regards to risk management In the context of Solvency II, a circular letter was sent to all insurance companies in April 2008 encouraging them to participate in QIS 4 in order to assess and evaluate their risks. As a result, seven companies have participated in QIS 4. Also a seminar to that effect was held in June 2008 and 27 insurance companies participated. For the purposes of analyzing and evaluating the changes to be brought by Solvency II, a technical committee has been formed by the ICCS which consists of members from the Institute of Actuaries,

Reference Principle	Recommended Action	Status
		the Cyprus Insurance Association, the Institute of Certified Accountants and the ICCS. The committee meets regularly under the auspices of the ICCS to discuss all Solvency II developments.
ICP 19 Insurance activity	The ICCS should ask the supervised companies to provide a risk profile stating the introduction of new products, availability of rating factors and changes in its attitude to insurance risks.	The upgrading of the quality of staff of the ICCS (see ICP 3) will enable the ICCS to implement fully this recommended action. (The said action is already implemented partially for the Life sector insurance companies as far as pricing and product range are concerned).
ICP 20 Liabilities	The determination of appropriate reserves requires that the ICCS has both the ability to contract external resources and recruit further adequately skilled staff. It is therefore referred to the relevant recommendations on ICP 1 and ICP 3.	Since 2005 additional professional staff which consists of two actuaries and two chartered accountants have been employed. Also, chain ladder methods are used widely since 2006 by the ICCS staff for the assessment of general business claims liabilities. Assessment of life liabilities is also carried out by the ICCS actuaries.
ICP 21 Investments	Company investment policy should be part of a risk profile which every insurance company should submit to the ICCS on a regular basis. Also, internal control procedures should cover initial procedures for investment decisions and on operational risk as it refers to contingency plans.	The ICCS is examining the investments risk profile for each category of liabilities (Property Linked, Non-Life, General Business etc), through analysis of the Investment Registers submitted to the ICCS by insurance companies every quarter. In addition, for Life Business only (since it is long-term business), the ICCS matches the said investment profile with a more detailed structure of the liabilities. It also assesses the relevant future expected return and then compares it with the valuation interest rate used by the appointed actuaries of insurance companies in their evaluation of the liabilities. Further improvement in this area (i.e. taking into consideration counterparty default risks), will result within the Solvency II framework.
ICP 22 Derivatives and similar commitments	None.	
ICP 23 Capital adequacy and solvency	Cash collection of premiums should be an essential part of the internal control procedures. Premium receivables would not then accumulate to the existing levels and, therefore, not be a substantial issue. Solvency capital should be reported to the ICCS on a quarterly basis in	Since 2005 proactive supervisory action was taken for ensuring compliance with Solvency I requirements by insurance companies. As a result, all companies have successfully increased their capital levels to comply with Solvency I requirements. With respect to quarterly reporting, only the companies that are identified by the ICCS as

Reference Principle	Recommended Action	Status
	order to avoid currently existing delays. There should be an awareness that it is unacceptable for companies to continue their operations if they are unable to meet the minimum requirements. There is also evidence that the Solvency I requirements, which will be enforced in March 2007 for existing businesses, will create difficulties for some of the smaller companies, mainly in General Lines. This problem is addressed in a technical assistance report.	having capital problems are requested to report their solvency levels on a quarterly basis. The rules governing the admissibility of premium debts as an asset for covering technical provisions, have been extended to premium debts covering the solvency margin through Orders issued by the Superintendent in March 2006.
ICP 24 Intermediaries	Given the range of tasks undertaken by the supervisor, the planned allocation of resources, including those devoted to intermediary supervision, could be reviewed.	Since 2005 efforts are constantly made for maintaining the minimum possible allocation of resources for intermediary supervision, without jeopardizing the effectiveness of the ICCS in carrying out this type of supervision.
ICP 25 Consumer protection	The SI could publish the frequency of complaints received on a company level to initiate further incentives for companies to react in a more customer-friendly fashion.	The Bill for the establishment of a Financial Ombudsman has been submitted in 2007 by the Ministry of Finance to the House of Representatives where it is still pending. A first reading and discussion between all parties concerned has already taken place on June 5, 2008 in the relevant Committee of the House of Representatives. At any rate the LIS includes provisions for minimum requirements for insurers and intermediaries when dealing with consumers which include provisions for timely, complete and relevant submission of information to consumers before and after a contract is signed.
ICP 26 Information, disclosure & transparency toward the market	Improve contents and frequency of market reports.	Since 2005 the Report is being published annually and its contents have been improved, though there is still room for further improvement which the ICCS is planning to adopt in future Reports.
ICP 27 Fraud	See ICP 10 recommendations for further details.	Developments in internal controls under ICP 10 will also include fraud issues.
ICP 28 Anti-money laundering	A common approach should be identified. Also, resources to deal with suspicious transactions reports (STRs) should be provided on an as-needs-basis. During the assessment	On-site inspections will deal with money laundering issues as well. The SI has already issued Guidance Notes for the insurance companies compliance with the Prevention and Suppression of Money Laundering Activities Law.

Reference Principle	Recommended Action	Status
	of the life market, interviewed managers stated that most of the single premiums paid into unit-linked contracts had not been withdrawn from other forms of saving vehicles but had been provided either in cash or from other cash accounts. The sources of those premiums and their provision to the life insurance companies, however, have not led to submission of STRs to the SI.	

IOSCO Assessment

Reference Principle	Recommended Action	Status
Principles 1 and 25. CySEC was unable to supervise effectively the Stock Exchange as both were public administrative bodies and one such body cannot supervise another such body	The transposition of the EU MiFID into Cyprus law removed this anomaly.	CySEC is now without question the supervisor of the Stock Exchange.
Principle 11. CySEC could not share information or carry out investigations on behalf of foreign regulators where CySEC did not have an independent interest in the matter under investigation	An amendment to the law to remove this obstacle.	Partly achieved. Following the transposition of a number of EU Directives, CySEC can now share such information and carry and out inspections on behalf of fellow EU regulators but not for non-EU regulators. Legislation is currently before Parliament to address this shortcoming. It is expected to be enacted late 2008/early 2009.
Principle 13. CySEC was experiencing difficulties in obtaining the identities of the beneficial owners of shares which were registered in the name of lawyers on behalf of the beneficial owners	An amendment to the law that would bring clarity to the matter.	Not achieved as yet but is expected to be dealt with in the proposed legislation referred to above.
Principle 2. CySEC must provide the Minister of Finance	That this clause be revoked from the relevant legislation.	Not achieved as yet but is expected to be dealt with in the proposed legislation referred to above.

Reference Principle	Recommended Action	Status
with any information he may deem necessary for the benefit of the public good. (This was seen as potentially impacting on the independence of CySEC).		
Principle 20. CySEC did not have specific rules for the valuing of assets of collective investment schemes (UCITS) other than for shares in listed companies.	CySEC to introduce such rules and particularly before the authorization of the first UCITS.	No local UCITS have been authorized (due to lack of clarity re. tax) but nor have any valuation rules been issued yet. The tax uncertainty is due to be dealt with soon and CySEC has indicated that it will introduce the relevant valuation rules before the first authorization of a UCITS.

APPENDIX III. DETAILED FSAP RECOMMENDATIONS

Financial System Stability

Recommendation	Responsible Agency	Priority/Timeline
Financial Stability/Stress Testing		
Strengthen the financial stability function at the CBC	CBC	High/ST
Statistical Service of the Republic to compile reliable date on household debt service, income and real estate prices	CyStat	High/ST
Closely monitor liquidity developments in banks	CBC	High/ST
Maintain prudential stance on liquidity ratio	CBC	High/ST
Continue stress test exercise with major banks; extend to credit cooperatives	CBC	Medium/MT
Conduct regular scenario analysis stress tests; develop tests for financial contagion (banks nonbanks, insurance); deepen analysis of mortgage-related credit risk	CBC	Medium/MT
Include sensitivity tests for counterparty risks in stress test exercise	CBC	Medium/MT
Develop offsite model for banks and compare with stress test results	CBC	Medium/MT
Remedial Action		
Consider explicitly prohibiting or reducing dividends	CBC/ASDCS	Medium/MT
Consider explicitly allowing disclosure of remedial actions	CBC/ASDCS	Medium/MT
Consider adopting early remedial corrective action framework	CBC/ASDCS	Medium/MT
Deposit Insurance		
Increase level of protection	CBC/ASDCS /MoF	High/ST
Increase preparedness (report setoffs; have depositor lists available)	CBC/ASDCS	Medium/ST
Increase coverage to 100 percent of guaranteed deposit	CBC/ASDCS /MoF	High/ST
Shorten time limit on deposit distribution	CBC/ASDCS	Medium/ST
Increase contribution to fund	CBC/ASDCS /MoF	High/ST
Increase the ability of the Fund to borrow	CBC/ASDCS /MoF	High/ST
Allow Management Committees to change technical parameters	CBC/ASDCS /MoF	Medium/ST
Coordinating Arrangements		
Conduct simulation exercises to test the coordination mechanisms	CBC/ASDCS/MoF	High/MT
Enhance transparency and accountability practices to overcome possible communication problems with the MoF	CBC	High/ST
Make contingent liabilities of MoF more explicit	MoF	High/ST
Take lead role in non-EU supervisory cooperation	CBC	High/MT
Emergency Liquidity Assistance		
Put in place operational guidance for ELA	CBC/ASDCS	High/ST
Explicitly restrict collateralized lending to illiquid but solvent banks	CBC	Medium/ST
Monitor liquidity situation of banks intensively in crisis situations	CBC	High/ST
Bank Resolution		
Define more explicit thresholds for intervention and communication	CBC	High/ST
Clarify bank resolution framework	CBC/MoF	High/ST
Regulatory and Supervisory Architecture		
Consider creating an integrated supervisory agency	Government	Medium/MT/LT
Combine supervision of commercial banks and credit cooperatives	Government	Medium/ST/MT
Consider integrating pensions supervision with insurance or securities	Government	Medium/MT

BCP—Banks

Reference Principle	Recommended Action
CP 1.1 Objectives	Evaluation of the approach to banking supervision should be in the medium term focus.
CP 1.2 Independence	Additional qualified supervision staff is needed. Continue to advance the depth o staff expertise and skills.
CP 5 Investment Criteria	Finalize the implementation of investment criteria.
CP 6 Capital Adequacy	Increase the frequency of reporting from 6 to 3 month.
CP 9 Large Exposure Limits	Increase the frequency of reporting from 6 to 3 month.
CP 10 Connected Lending	Respective limits should be sharply reduced.
CP 22 Remedial Measures	Develop a more comprehensive system of monetary penalties.

BCP—Cooperative Credit Institutions

Reference Principle	Recommended Action
CP 1.1 Objectives	An evaluation of the approach to banking supervision should be take place as soon as possible.
CP 1.2 Independence	Continue to advance the depth of staff expertise and skills.
CP 2 Permissible Activities	To increase transparency of the cooperative sector the ASDCS should publish a list of credit cooperatives they supervise.
CP 3 Licensing	Develop more comprehensive criteria on the fit and properness of the board an senior management.
CP 6 Capital Adequacy	Increase the frequency of reporting from 6 to 3 month.
CP 9 Large Exposure Limits	Increase the frequency of reporting from 6 to 3 month.
CP 13 Other Risks	Finalize the regulatory decision on the implementation of the ICAAP and SREP.
CP 14 Internal Control and Audit	To receive more clarity, a final decision concerning the level of support that would be provided by the CCB on internal controls and risk management to affiliated credit cooperatives should be reached.
CP 16 On-site and Off-site Supervision	Evaluation of the effectiveness of the new capital regime. Enforce plans for full scope on-site examinations.
CP 22 Remedial measures	Develop a more comprehensive system of monetary penalties.

Insurance Regulation and Supervision

Reference Principle	Recommended Action
The Supervisory System 2–5	The SI should use the next edition of the Annual Report to communicate more effectively on the supervisory objectives and upcoming activities. The SI should require written confirmation from those companies that they are in contact with local authorities and that all existing standards and regulation are met. Where those confirmations are not submitted by licensed entities, the respective market authorities should be informed accordingly.
The Supervised Entities 6–10	The ICCS could collect existing governance rules of supervised companies to identify the quality of governance requirements. Based on that collection, bespoken governance requirements for specific companies could be issued. The supervised undertakings do vary in size and complexity so much that only a

Reference Principle	Recommended Action
	very principle based regulation would be applicable. Such principles would not lead necessarily lead to improvements. Specific attention should be paid to this matter during the planned on-site inspections in 2009.
Ongoing Supervision 11–17	The Market analysis should be extended to not only collect information from supervised companies but also collect macro-economic data to be the basis for further analysis. The ICCS should strengthen its framework of analyzing off-site information. The analysis should cover financial, operational, solvency and market information. Each set of information should be reviewed to assess whether the previous assessment is still valid or whether severe changes have affected the entity. On-site inspections should be initiated when new information deviates from previous trends and analysis. There are minor issues on the winding-up provisions in the ILS which should be amended when a larger revision of the ILS will be conducted. These issues comprise the participation of policyholders in winding-up or liquidation and a larg independence of the SI in the process. The SI should also have plans prepared t react to winding-ups and to have contingencies.
Prudential Requirements 18–23	ICCS should participate in CEIOPS courses and also contact Cypriot's banking supervisor to take all opportunities to increase knowledge on risk management. This regulation on concentration risk does present an unnecessary market risk. I fact, there are four insurance companies which have more than 40 percent of the assets with only one counterparty in one financial instrument, non tradable. The regulation should be amended and companies should be asked to provide a viable exit-strategy. ICCS should request companies to send in preliminary reports in order to receive relevant information on solvency positions earlier. ICCS could update its data lat when the audited accounts arrive.
Markets and Consumers 24–27	The qualitative information should increase and elaborate on trends and changes as well as on developments within the EU in relation to insurance. Also, quantitative information should be provided on a company level as this is not regarded as proprietary information. It is recommended to liaise with the International Insurance Fraud Agency to receive further input and to benefit from international experience on this issue.

Securities Supervision

Reference Principle	Recommended Action
Principle 26 – Stock Exchange	CySEC should carry out an immediate inspection of the Stock Exchange to satisfy itself that the Exchange is well positioned to implement its strategic plan. On a wider level, the State should consider if it wants to remain the owner of the Exchange or whether privatization should be considered.
Principle 21 – Market intermediaries	In supervising market intermediaries, CySEC should pay particular attention to those intermediaries which are foreign owned and provide investment services largely to overseas clients.
Principle 3 – Funding	CySEC should seek to ensure that it will have sufficient funds to carry out its

	statutory obligations.
Principle 11 - Information sharing	CySEC should ensure that its inability to collect information or carry out investigations on behalf of non-EU regulators where it does not have an independent interest in the matter is addressed in forthcoming legislation.
Principle 13 – assistance to foreign regulators	CySEC should ensure that in forthcoming legislation its difficulties in obtaining the identities of beneficial owners of shares registered in the name of lawyers acting on behalf of the beneficial owners is addressed.
Principle 2 – Regulatory independence	The clause in existing legislation whereby the Minister of Finance can require CySEC to provide him with any information he may deem necessary for the benefit of the public interest should be revoked in forthcoming legislation. For all other corporate governance issues relating to independence/accountability, e.g., objective criteria re the appointment of directors, terms of office, removal from office, and reporting to Parliament, the law is adequate.
Principle 20- Collective investment schemes	CySEC should introduce rules for the valuation of assets other than shares in listed companies.

APPENDIX IV. STRESS TESTS

59. **A set of basic stress tests was performed to assess the resilience of the banking sector to a variety of potential shocks.** The purpose of these tests was to examine the potential effects on banks' financial condition of a set of changes in risk factors, corresponding to a range of adverse events. The shocks can be considered extreme but with a positive, albeit small, probability of occurrence. Moreover, past data may capture only partly the type of extreme events that might happen in the future. The stress testing analysis therefore had to rely on a combination of experience from other countries, expert judgment, and sensitivity analysis. Therefore, the results should only be treated as approximation.

60. **The tests combine single-factor sensitivity calculations and scenario analysis.** The single-factor scenarios are useful since they are simple and allow analysis of the partial impacts of the various shocks over time. The macroeconomic scenarios allow to reflect better the interplay of the numerous risk factors, all influenced by macroeconomic developments.

61. **The tests also combines top-down and bottom-up approaches.** Two sets of top-down stress tests have been carried: one by the CBC staff, based on supervisory data with a coverage of 75 percent of total assets of the Cypriot banking system, and one by the FSAP team, using publicly available financial data. In addition, a bottom-up stress testing exercise performed by four large banks' risk managers has been organized. The results of the two top-down exercises and the bottom-up exercise have been cross-checked for consistency, and discrepancies were discussed in meetings between the FSAP team, the authorities, and individual bank representatives.

A. Sensitivity Analysis

62. **Sensitivity analysis confirms that credit shocks have a large and more widespread potential impact on banks than any other single-factor shock.** Analyses of the impact of a range of single-factor shocks to credit risk (i.e., general deterioration in credit quality) were carried out by the FSAP team, by the CBC, and by a subgroup of large banks (Appendix Table 5) for a description of the shock scenarios). The results of the tests suggest that credit shocks had a large and more widespread potential impact on banks than other single-factor shock (Appendix Table 6). A shock that assumes that NPLs double and that loss-given-default equals 80 percent will lead to a size of 13.7 percent of GDP loss in four banks, leaving three of them undercapitalized and requiring capital injections equivalent to about 5 percent of GDP to ensure that they satisfy the minimum CAR of 8 percent. The stress tests show that banks also face concentration risk in their loan portfolio (Appendix Table 7). The failure of the largest five borrowers would push one bank under the minimum capital ratio.

63. **The stress tests results indicate that banks exposure to real estate could be the source of risk.** With the U.S. originated financial crisis fully hitting the European banking

system and also spilling over into a reduction in growth rates in Europe, the real estate market in Cyprus has been affected by these developments. Cyprus's high level of household indebtedness significantly exposes it to adverse real estate shocks and could impact its household debt serving capacity should real estate prices substantially decline. In addition, the prolonged foreclosure process prohibits banks from writing off NPL speedily. The mortgage lending regulation which imposes a maximum 80 percent loan-to-value (LTV) ratio for the first-home buyers and 70 percent LTV for the second home has provided some buffer against property price declines. Four banks' bottom-up stress tests show that a 30 percent correction in residential and commercial real estate prices will lead to a reduction of CAR by 1.4 percent.

64. **For market risks, a range of sensitivity tests were carried out.** For exchange rate risk, the tests evaluated the direct (i.e., market price) effects on Cypriot banks of a 15 percent and 30 percent depreciation and appreciation of the Euro against all other currencies. Direct losses arising from exchange rate shocks are negligible for most banks, reflecting their very small net open positions in foreign exchange.[16] The impact of interest rate changes on banks' soundness is also relatively small. Generally, an increase in interest rates improves banks' profitability as their asset size reprices more quickly than their liabilities.[17] But significant change in net interest margin will affect some banks' net interest income, therefore CAR (Appendix Table 8) Banks' exposure to stock prices is very small, reflecting the reduction in their exposures after the stock price bubble of the early 2000s.[18]

65. **Stress tests for liquidity risk confirm that the banks liquidity risk is manageable.** The bottom-up stress tests ask how long a bank can survive without borrowing from the central bank or from other banks in the system on an uncollateralized basis. Two liquidity ratios are tested and the tested time lapse is 5 days and 30 days. The results show that under only one extreme scenario two banks will not survive. The results of the deposit liquidity stress tests conducted by the CBC suggest that liquidity buffers are reasonably high in banks. Under an extreme scenario that assumes that 30 percent of all demand deposits are being withdrawn, the banks can use only their liquid assets, and have no recourse to other banks or to the lender of last resort, the banks' liquidity ratio will reduce to 40 percent from 46 percent.

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[16] Banks are required to limit foreign currency open positions to 6 percent of capital.

[17] For example, most of the mortgage loans are flexible and linked to the Euribor rates.

[18] Bank equity investments stood at 0.25 percent of total assets as of end-April 2009.

Appendix Table 5. Cyprus: Sensitivity Analysis Stress Tests, December 2008

	Shocks	Result
Bottom-up stress tests 1/		
Interest rate risk	Parallel upward/downward shift in the yield curve by 200 bps	Negligible
	3M and 12M rates up/down by 100 bps and 50 bps respectively	Negligible
	3M and 12M rates up/down by 200 bps and 100 bps respectively	Negligible
Exchange rate risk	15 percent, and 30 percent depreciation (appreciation) of Euro against all foreign currencies	Negligible
Asset price risk	Equity price 30 percent, 50 percent decline	Negligible
	Residential and (or) Commercial real estate price 20 percent, 30 percent decline	No undercapitalized banks
Credit risk (general)	NPL (in percent) 20, 50, 100 increase; LGD (in percent) 30, 40, 50, 60, 70, 80	Appendix Table 6
Credit risk (concentration)	Default largest 3, 5 exposures (excl. government)	Appendix Table 7
	Default largest 3 exposures (excl. gmt and financial institutions)	
	10 percent of loans to non-financial corporations become NPLs (assuming LGD=20 percent for loans secured by real estate property and LGD=80 percent for loans not secured by real estate property).	
	10 percent of loans to domestic households become NPLs (assuming LGD=20 percent for loans for house purchase and LGD=80 percent for consumer credit and other household lending).	
Counterparty risk	All bond prices decline by 5 percent and 10 percent	Appendix Table 8
	All government bond/international organizations bonds/financial institutions decline by 5 percent, respectively	
	All financial institutions' bond prices decline by 7.5 percent	
	All corporate bond/covered bond/subordinated debt/other bond prices decline by 10 percent	
Net interest margin risk	Reduction of interest margin by 0.5 percent, 1 percent, or 2 percent	Appendix Table 9
Liquidity risk	Liquid Assets/Total Assets (%) after 5 and 30 days under shocks	Appendix Table 10
	Liquid Assets/Short-Term Liabilities (%) after 5 and 30 days under shocks	
Top-down stress test by the CBC 2/		
Interest rate risk	Parallel downward shift in the yield curve by 100, 200, 300 bps	Negligible
Exchange rate risk	30 percent and 50 percent appreciation of Euro against all foreign currencies	Negligible
	Under the above scenario, assuming 100 percent depreciation leads to 10 percent foreign exchange loans become NPL with 50 percent increase in provisioning rate on the additional NPLs	Negligible
Asset price risk	Equity price (in percent) 10, 30, 50 decline	Negligible
Credit risk	NPL (in percent) 20, 50, and 100 increase; LGD (in percent) 25, 50, and 100	See Appendix Table 6
Liquidity risk	10 percent and 30 percent reduction in deposits	See Appendix Table 10

Sources: Central Bank of Cyprus, four largest banks, and IMF staff calculations.
1/ Performed by four largest banks and IMF staff.

2/ With a coverage of 75% of total banking assets.

Appendix Table 6. Cyprus: Credit Risk Stress Test Results, December 2008

	Aggregated (in percent)	Mean (in percent)	Max (in percent)	Min (in percent)	Median (in percent)
Bottom-up stress tests					
Before shock CAR	10.7	10.9	11.3	10.1	11.0
Post shock CAR					
Loss-given default=50%					
NPLs up by 20%	10.2	10.4	11.0	9.6	10.4
NPLs up by 50%	9.3	9.6	10.3	8.9	9.5
NPLs up by 100%	8.0	8.2	9.3	7.8	7.9
Loss-given default=60%					
NPLs up by 20%	10.1	10.2	10.9	9.5	10.3
NPLs up by 50%	9.1	9.3	10.1	8.7	9.2
NPLs up by 100%	7.5	7.7	8.9	7.2	7.4
Loss-given default=70%					
NPLs up by 20%	10.0	10.1	10.8	9.4	10.2
NPLs up by 50%	8.8	9.0	9.9	8.5	8.9
NPLs up by 100%	7.0	7.2	8.5	6.5	6.9
Loss-given default=80%					
NPLs up by 20%	9.9	10.0	10.7	9.4	10.1
NPLs up by 50%	8.6	8.8	9.7	8.2	8.6
NPLs up by 100%	6.4	6.6	8.0	5.9	6.3
Top-down stress test					
Before shock CAR	10.9	...	...	...	...
Post shock CAR					
Loss-given default=25%					
NPLs up by 20%	10.7	...	...	...	...
NPLs up by 50%	10.3	...	...	...	...
NPLs up by 100%	9.7	...	...	...	...
Loss-given default=50%					
NPLs up by 20%	10.4	...	...	...	...
NPLs up by 50%	9.7	...	...	...	...
NPLs up by 100%	8.4	...	...	...	...
Loss-given default=75%					
NPLs up by 20%	10.2	...	...	...	...
NPLs up by 50%	9.1	...	...	...	...
NPLs up by 100%	7.2	...	...	...	...

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

Appendix Table 7. Cyprus: Concentration Risk Stress Test Results, December 2008

(In percent)

	Aggregated	Mean	Max	Min	Median
Pre shock CAR	10.7	10.9	11.3	10.1	11.0
Post shock CAR					
Default largest 3 exposures (excl. government)	8.3	9.2	11.3	6.7	9.4
Default largest 3 exposures (excl. gmt and financial institutions)	9.7	10.0	11.3	9.2	9.8
Default largest 5 exposures (excl. government)	6.3	7.7	11.3	4.3	7.6
Default largest 5 exposures (excl. gmt and financial institutions)	9.3	9.6	11.3	8.7	9.2
10% of loans to non-financial corporations become NPLs (assuming LGD=20% for loans secured by real estate property and LGD=80% for loans not secured by real estate property).	6.2	7.1	9.2	4.7	7.2
10% of loans to domestic households become NPLs (assuming LGD=20% for loans for house purchase and LGD=80% for consumer credit and other household lending).	8.8	9.4	10.4	8.3	9.4

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

66. **Banks' counterparty risk could arise from their bond holdings on financial institutions.** At end-December 2008, Cypriot banks held 6.5 and 8.5 percent of total consolidated assets in the form of bonds issued by other Euro area banks and non-Euro area banks. The stress tests show that if all financial institutions' bond price decline by 10 percent, the CAR will decrease by 1 percent, leaving one bank undercapitalized (Appendix Table 9).

Appendix Table 8. Cyprus: Net Interest Margin Risk Stress Test Results, December 2008

(In percent)

	Aggregated	Mean	Max	Min	Median
Pre-shock CAR	10.7	10.9	11.3	10.1	11.0
Post shock CAR					
Reduction in NIM by 0.5 percentage points	10.1	10.2	10.8	9.5	10.4
Reduction in NIM by 1.0 percentage point	9.1	9.4	10.1	8.2	9.7
Reduction in NIM by 2.0 percentage points	7.3	7.8	8.9	5.6	8.4

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

Appendix Table 9. Cyprus: Counterparty Risk Stress Test Results, December 2008

(In percent)

	Aggregated	Mean	Max	Min	Median
Pre shock CAR	10.7	10.9	11.3	10.1	11.0
Post shock CAR					
All bond prices decline by 5%	9.9	10.3	11.3	9.0	10.5
All bond prices decline by 10%	9.1	9.8	11.3	7.8	10.0
All government bond prices decline by 5%	10.2	10.7	11.3	9.9	10.8
All international organizations' bond prices decline by 5%	10.4	10.9	11.3	10.1	11.0
All financial institutions' bond prices decline by 7.5%	9.8	10.5	11.3	9.3	10.6
All corporate bond prices decline by 10%	10.1	10.8	11.3	9.7	11.0
All covered bond prices decline by 10%	10.4	10.8	11.3	10.1	11.0
All subordinated debt prices decline by 10%	10.4	10.9	11.3	10.1	11.0
All other bond prices decline by 10%	10.2	10.8	11.3	9.8	11.0

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

B. Scenario Analysis

67. **A scenario analysis focused on several combinations of shocks.** The single-factor sensitivity calculations summarized above are only approximate, as individual shocks would most likely be accompanied by a broader macroeconomic stress that would impact banks also through channels other than just their direct exposures to market risks. This is addressed in scenario analysis, which considers how capital account shocks would affect the economy against a background of rising macro-financial linkages. While the scenarios have been informed by Cyprus's recent experience, relationships that worked in the past generally break down during times of dislocation. Accordingly, these scenarios draw on the experience of a wide number of countries that have undergone similar exceptional scenarios.

68. **The scenario analysis indicates a combination of shocks could have substantial impact on banks' capitalization.** Table 6 shows the results of one extreme scenario, which combines an increase in nonperforming loans by 100 percent, a real estate price decline by 30 percent, a decline in interest rates by 200 basis points, and an exchange rate appreciation by 30 percent. The results, aggregated from the results reported by the four large banks, show that under such a scenario, the aggregate capital adequacy would decline to 4.8 percent, and capital injections equivalent to about 10.5 percent of GDP would be needed to ensure that all banks satisfy the minimum capital adequacy ratio of 8 percent.

Appendix Table 10. Cyprus: Liquidity Risk Stress Test Results, December 2008

(In percent)

		Bank 1				Bank 2				Bank 3				Bank 4			
	Aggr.	Liquid A/Total A After		Liquid A/L After		Liquid A/Total A After		Liquid A/L After		Liquid A/Total A After		Liquid A/L After		Liquid A/Total A After		Liquid A/L After	
Liquidity scenario		5 ds	30 ds	5 ds	30 ds	5 ds	30 ds	5 ds	30 ds	5 ds	30 ds	5 ds	30 ds	5 ds	30 ds	5 ds	30
Bottom-up stress tests by individual banks																	
Pre-shock liquidity ratio	...	26	26	31	31	23	23	26	26	29	29	34	34	17	17	29	29
Post-shock liquidity ratio																	
Scenario 1 1/	...	22	18	27	22	20	15	23	17	24	23	27	25	16	15	28	27
Scenario 2 2/	...	9	4	11	5	13	8	0	15	16	14	18	17	12	12	21	21
Scenario 3 3/	...	8	3	9	4	12	6	13	7	16	14	18	16	11	11	20	20
Scenario 4 4/	...	-1	-7	-1	-8	5	-2	5	-2	6	4	7	5	6	6	12	12
Top-down stress tests by the CBC																	
Pre-shock liquidity ratio 5/	46																
Post-shock liquidity ratio																	
10% reduction in deposits	44																
30% reduction in deposits	40																

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

1/ Assumptions: (1) 10% of loans to other banks are not repaid; (2) Pool of eligible collateral accepted by parties in secured market shrinks by 30% (except gmt bonds and gmt guaranteed assets); (3) 30% of currently eligible assets (except gmt bonds and gmt guaranteed assets) fall below the central bank’s threshold for accepting as collateral; and (4) All wholesale (interbank) funding repaid on maturity, no new funding made available.

2/ Assumptions: (1) 15% of Euro deposits withdrawn over 5 days; (2) All liquid assets take a haircut of 20%; (3) All undrawn and committed credit lines are drawn for 30% of committed value over 5 days; (4) All wholesale (interbank) funding repaid on maturity, no new funding made available.

3/ Assumptions: (1) 50% of FX-denominated deposits withdrawn over 5 days; (2) All liquid assets take a haircut of 20%; (3) All wholesale (interbank) funding repaid on maturity, no new funding made available.

4/ Assumptions: (1) 20% of Euro deposits withdrawn over 5 days; (2) 30% of FX-denominated deposits withdrawn over 5 days; (3) All liquid assets take a haircut of 20%; (4) All undrawn and committed credit lines are drawn for 30% of committed value over 5 days; (5) All wholesale (interbank) funding repaid on maturity, no new funding made available.

5/ Liquid asset to total borrowing ratio.

Appendix Table 11. Cyprus: Scenario Stress Tests

(In percent)

	Aggregated	Mean	Max	Min	Median
Pre shock CAR	10.7	10.9	11.3	10.1	11.0
Post shock CAR 1/	4.7	5.0	6.3	4.3	4.8
Capital injection required to restore 8% CAR 2/	10.6	2.7	5.2	0.4	2.5

Sources: Central Bank of Cyprus, four largest banks (covering 75% of total banking assets), and IMF staff calculations.

1/ Scenario assumptions: (1) NPLs up by 100%, LGD=80%; (2) All interest rates down by 200 bps; (3) Exchange rate appreciation by 30%; (4) Real estate prices decline by 30%; (5) Equity prices decline by 50%.

2/ In percent of 2008 GDP