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Hungary: 2008 Article IV Consultation—Staff Report; Staff Supplement; and Public Information Notice on the Executive Board Discussion

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the Article IV consultation with Hungary, the following documents have been released and are included in this package.

- The staff report for the 2008 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on June 10, 2008, with the officials of Hungary on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on July 29, 2008. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A supplement to the staff report of September 10, 2008 updating information on recent developments.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its September 17, 2008 discussion of the staff report that concluded the Article IV consultation.

The document listed below has been or will be separately released.

Selected Issues Paper

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INTERNATIONAL MONETARY FUND

HUNGARY

Staff Report for the 2008 Article IV Consultation

Prepared by the Staff Representatives for the 2008 Consultation with Hungary

Approved by Ajai Chopra and Adnan Mazarei

July 29, 2008

Mission: May 29–June 10, 2008. The concluding statement of the mission is available at http://www.imf.org/external/np/ms/2008/061008.htm.

Staff Team: Mission comprised Mr. Morsink (head) and Mr. Joshi (both EUR), Ms. Ong (MCM), Mr. Debrun (FAD), and Mr. Sierhej (Regional Representative Office, Warsaw). Ms. Mitra (EUR) supported the work of the mission from headquarters. Mr. Rosenberg (Senior Regional Representative, Warsaw) joined the mission for a few days. Mr. Kiekens (Executive Director) attended the senior-level policy meetings. Mr. Abel (Senior Advisor, Executive Director's office) also joined the mission.

Counterparts: The mission met with the Prime Minister, the Minister of Finance, the Governor of Magyar Nemzeti Bank, the Minister of National Development and Economy, the Minister of Health, the Chairman of the Hungarian Financial Supervisory Authority, and senior officials in these institutions. In addition, the mission met with the leader of the main opposition party, academics, policy analysts, and representatives from a wide range of financial institutions.

Contents Page

I. Staff Appraisal and Summary 3
II. Context 4
III. Outlook—Risks to External Stability Remain High 6
IV. Fiscal Policy—Further Consolidation Required 12
V. Monetary Policy—Higher Interest Rates May Be Necessary 16
VI. Financial Stability—Risks Need To Be Addressed 19

Tables
1. Main Economic Indicators, 2003–09 21
2. Demand Components of GDP, 2002–07 22
3. Balance of Payments, 2003–09 23
4. Net International Investment Position, 2002–07 24
5. Staff's Illustrative Medium-Term Scenario, 2003–13 25
6. Consolidated General Government, 2003–09 26
7. Financial Soundness Indicators for the Banking Sector, 2003–07 27

Boxes
1. Surveillance and Policies 4
2. Government Securities Market Turmoil 13
3. Numerical Fiscal Rules and Government Bond Yields 15
4. Monetary Policy Responses to Global Financial Shocks 18

I. Staff Appraisal and Summary

1. **The sharp fiscal consolidation and current account improvement in 2007 are welcome, but government debt and the net external liability position are still large**. The combination of high vulnerabilities and the deterioration in global financial conditions over the past year has led to a large increase in government bond yields. Moreover, financial system risks—especially credit and liquidity risks—have risen.

2. **Looking forward, economic growth is expected to pick up in 2008–09, but risks to external stability remain high**. Following the sharp fiscal consolidation in 2007, private consumption is projected to rise gently, while investment should be supported by EU transfers and the need to expand capacity in manufacturing. The current account deficit is expected to remain stable in 2008 but then widen in 2009–10, reflecting the real exchange rate appreciation in recent months and the projected pick up in domestic demand. Indeed, the real effective exchange rate is assessed to be somewhat above the value implied by fundamentals. Gross external financing needs in 2008–09 are high, though short-term debt is roughly covered by net international reserves.

3. **Given the high risks to external stability, the key policy priority is to reduce vulnerabilities**. To put the government debt-to-GDP ratio on a downward path and narrow the current account deficit, further fiscal consolidation is needed. To preserve domestic stability and confidence in the currency, monetary policy should aim to reduce inflation to the 3 percent target over two years. Financial sector policies need to focus on improving banks' risk management and reviewing safety nets.

4. **Further fiscal consolidation in line with the targets in the latest Convergence Program is essential**. For 2008, the fiscal deficit target seems attainable, and any revenue overperformance should be saved and devoted to reducing public debt. Achieving the 2009 target will require strict spending restraint and continued strong revenue growth, so there is no room for tax relief unless it is offset by spending cuts. Given the uncertainties about the economic outlook, the 2009 budget should include sizable contingency reserves. Introducing a rules-based fiscal framework would help deliver the required further fiscal consolidation. To boost potential GDP growth, a smaller size of government (and corresponding overall tax burden) and a shift in the tax burden would help. Further reforms of the pension, health, and education sectors are needed to reduce the ratio of government spending to GDP. A revenue-neutral shift in the tax burden away from labor and to consumption and wealth would improve work incentives and increase employment.

5. **Monetary policy should aim to reduce CPI inflation to the 3 percent target over two years**. The elimination of the exchange rate band in early 2008 is welcome, as this removes a potential conflict between monetary policy objectives. In the new floating exchange rate regime, monetary policy is able to focus exclusively on the inflation target. Given the rise in inflationary pressures in the first half of 2008, the tightening of monetary policy has been appropriate. Looking forward, the policy interest rate may need to rise further, depending on the effects of the recent exchange rate appreciation and the evolution

of underlying inflationary pressures. Policymakers should be prepared to react quickly and—if necessary—forcefully to inflationary shocks.

6. **Further policy action to improve banks' risk management is crucial**. Regarding credit risks, the priorities are to establish a credit registry for households and to strengthen stress testing, including of households' foreign currency exposures. If the Hungarian Supervisory Authority judges that banks are not adequately capitalized, it should not hesitate to use its supervisory tools to require increases in capital. Turning to liquidity risks, the priorities are to expedite the review of banks' liquidity management practices, develop liquidity management guidelines, and—in the meantime—ensure that banks have effective contingency arrangements. In addition, the review of financial safety nets should be accelerated.

7. It is proposed that the next Article IV consultation be held on the standard 12-month cycle.

II. Context

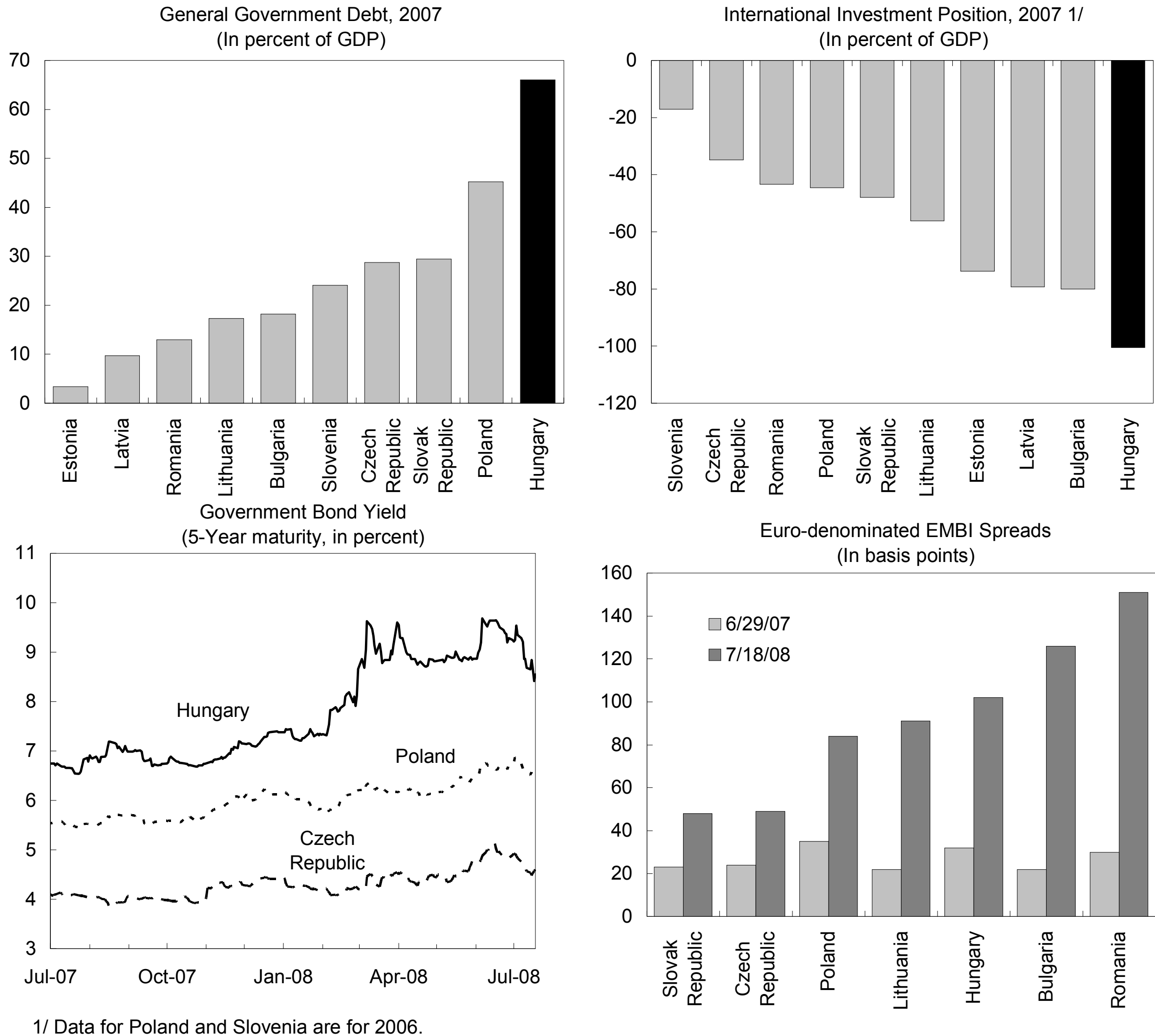
8. **The fiscal deficit and the current account deficit narrowed in 2007, but vulnerabilities are still high at a time when global financial conditions remain unsettled**. Macroeconomic and financial policies over the past year have been broadly in line with Fund advice (Box 1). However, following a decade of large fiscal and current account deficits, government debt and the net external liability position (relative to GDP) in Hungary are by far the largest among new EU member states. As a result, the fall in global risk appetite over the past year has led to a relatively large widening of government bond spreads. Moreover, financial system risks have risen, especially credit and liquidity risks.

Box 1. Surveillance and Policies

Fiscal Policy: Substantial fiscal consolidation since mid-2006 has been in line with Fund advice. Indicative expenditure ceilings were introduced with the 2008 budget, as a step toward implementing a medium-term budget framework. Improvements in tax administration have been supported by Fund technical assistance.

Monetary Policy: The elimination of the exchange rate band in early 2008 was in line with Fund advice. The design and implementation of the inflation targeting framework have been consistent with Fund recommendations.

Financial Sector: In line with the 2005 FSAP Update recommendations, the authorities have published guidelines on banks' risk management and consumer protection related to foreign currency loans. The authorities are also working on the implementation of bottom-up stress testing.



1/ Data for Poland and Slovenia are for 2006.

9. **Against this background, the Article IV discussions focused on the macroeconomic and financial policies needed to reduce risks to external stability**. Specifically:

- How much additional fiscal consolidation is needed to put the government debt-to-GDP ratio on a downward path? How could changes to the fiscal framework help? What tax and spending reforms would promote growth while preserving stability?
- How should monetary policy be set so as to lower inflation to the 3 percent target over two years? How should policymakers respond to weak GDP growth and higher food and energy prices? What are the main risks to inflation going forward?
- In the financial sector, what policies are needed to encourage improvements in banks' management of credit and liquidity risks? What can be done to ensure the resilience of financial safety nets?

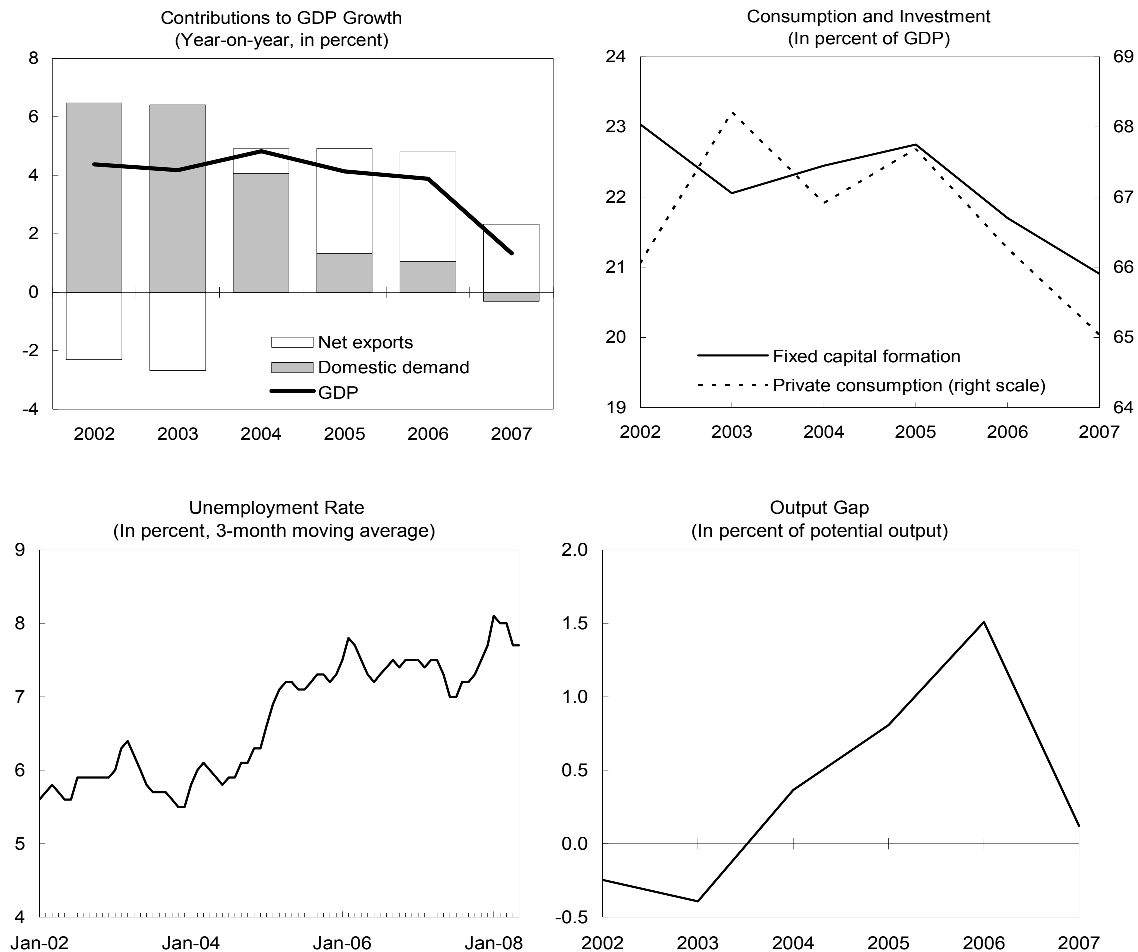
10. **Following the breakup of the governing coalition in March 2008, political uncertainty has increased**. After the government's defeat in a referendum on fees on

medical care and university education, the junior coalition partner (the Free Democrats), which spearheaded the health care reforms, pulled out of the ruling coalition, leaving the senior coalition partner (the Socialists) short of a majority in parliament. The next parliamentary elections are scheduled for mid-2010.

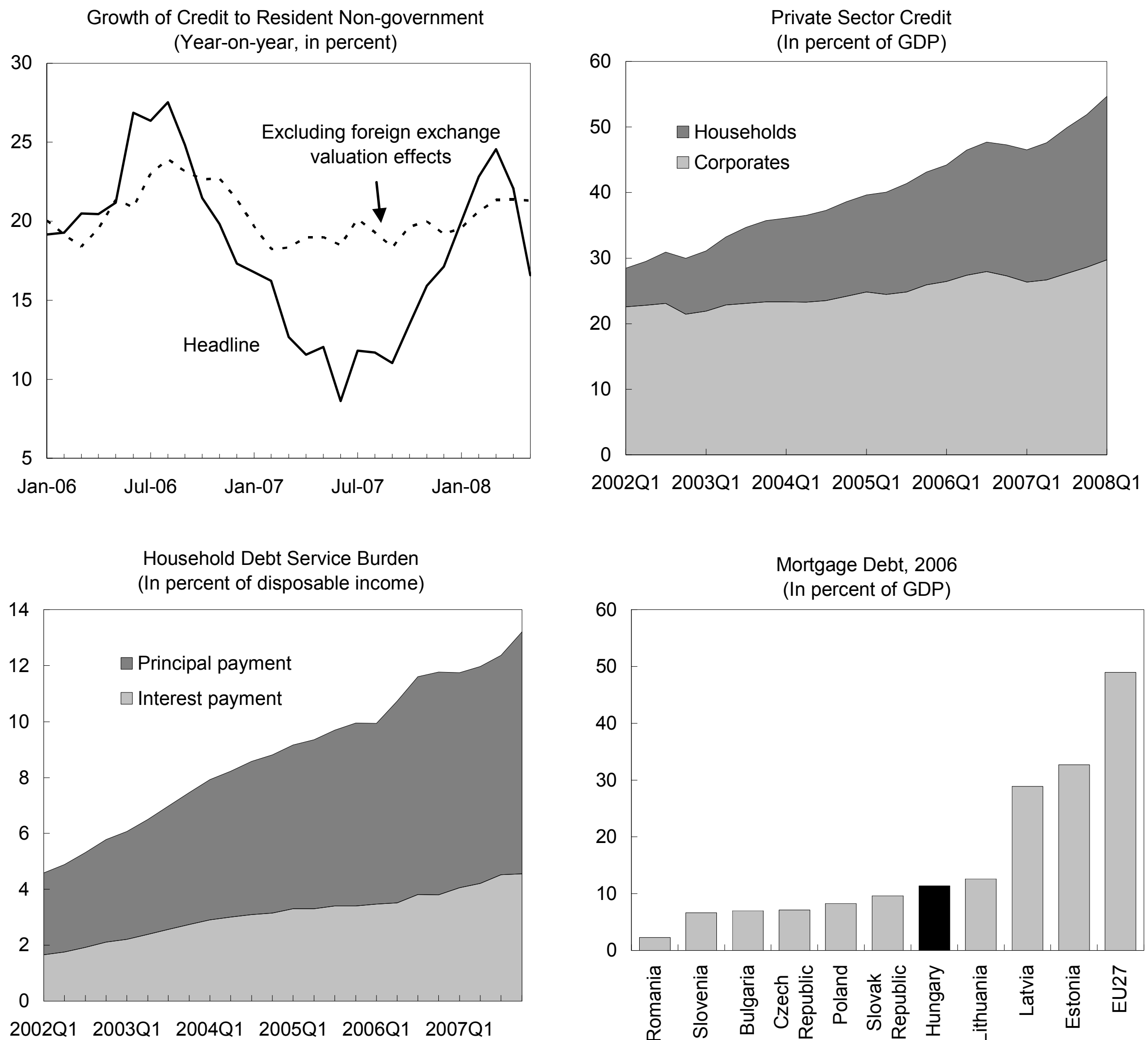
11. Staff welcome Hungary's participation in the HIPC Initiative. Hungary is one of eight non-Paris Club creditors that have provided full HIPC debt relief to all of its debtors.

III. OUTLOOK—RISKS TO EXTERNAL STABILITY REMAIN HIGH

12. **Real GDP growth slowed from 4 percent in 2006 to 1¼ percent in 2007, reflecting mainly the impact of fiscal consolidation on domestic demand** (Tables 1 and 2). Private consumption fell by 2 percent, reflecting anemic growth of real disposable income (due to weak real wage growth, lower social transfers, and higher indirect taxes). Fixed investment increased by just 1 percent, as subdued public investment and property-related investment more than offset robust investment in export-oriented sectors (such as manufacturing, transport, and communication). Weak domestic demand growth led to some easing of pressures on resource constraints. The unemployment rate has drifted up and staff's estimate of the output gap decreased from 1½ percent of potential output in 2006 to slightly above zero in 2007.

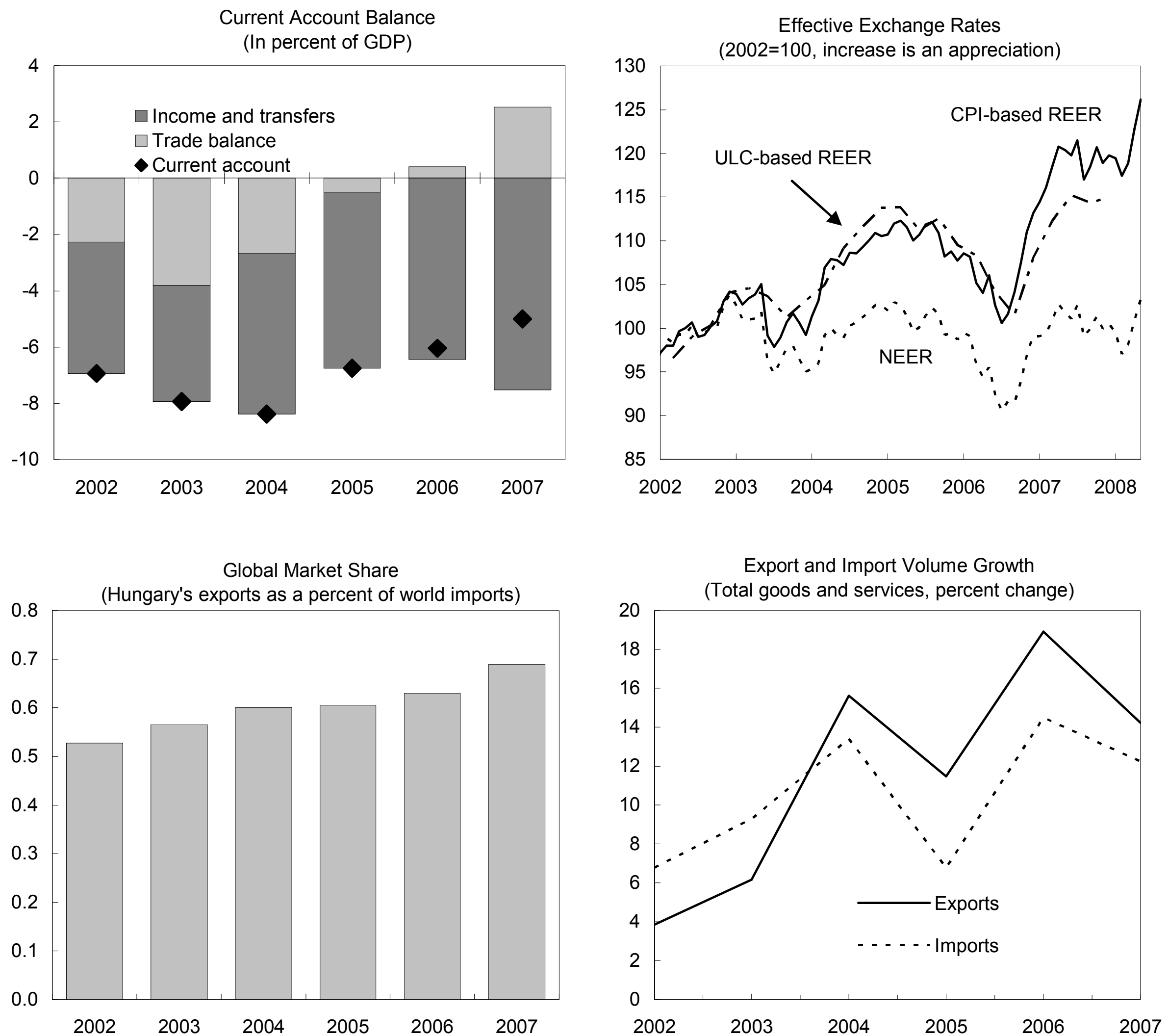


13. **Despite the economic slowdown in 2007, credit growth remained robust, reflecting investment in export-oriented industries and some consumption-smoothing**. Private sector credit growth (adjusted for changes in the exchange rate) stayed well above nominal GDP growth. As a result, households' debt service burden kept rising, though mortgage debt as a share of GDP is still well below the EU average. With most new borrowing in foreign currency, both the household and the corporate sectors' net foreign currency liabilities increased, raising indirect credit risk to the banking system. With the growth of nominal house prices remaining below CPI inflation in 2007, real house prices are lower than they were in 2002.



14. **The current account deficit narrowed from 6 percent of GDP in 2006 to 5 percent of GDP in 2007, reflecting weak domestic demand and solid export growth**

(Table 3).[1] By expanding into faster-growing emerging market countries, Hungarian exporters managed to increase their share of global imports. In particular, exports of machinery and equipment (the largest export category) continued to grow strongly. The combination of solid export growth and an easing of import growth led to an increase in the trade surplus, which was partly offset by a deterioration in net income, due largely to higher earnings of export-oriented non-resident companies. In the first quarter of 2008, the current account deficit remained at 5 percent of GDP.



15. **The real effective exchange rate (REER) appears to be somewhat above its equilibrium value, though large uncertainties surround such assessments**. Consistent

[1] The central bank and the central statistical office are working to identify the reasons behind the persistently large errors and omissions in the balance of payments (2½ percent of GDP in 2007). The Hungarian authorities have consulted with Eurostat and other central banks and central statistical agencies in the EU.

with Hungary's solid but now slowing export performance, the latest multilaterally consistent estimates suggest that the REER may now be about 10 percent above equilibrium, within the usual margins of uncertainty. However, some of the current overvaluation may be in line with monetary tightening to curb inflationary pressures.

- Staff estimate that the underlying current account deficit is 9½ percent of GDP.[2]

Deriving the Underlying Current Account Balance
(in percent of GDP)

	Adjustment
2007 Current account balance	**-5.0**
Temporary effects	0.0
Hungarian business cycle	0.1
Export partners' business cycle	-0.2
Real exchange rate movements (through June 2008)	-4.4
Underlying current account balance	**-9.5**

- The CGER macrobalance approach suggests an equilibrium CAD of 5 percent of GDP (the standard error of the estimate is 2-3½ percent of GDP).[3] The gap between the underlying CAD and the equilibrium CAD is 4½ percent of GDP. After taking into account medium-term EU capital transfers of 1½ percent of GDP, which are a stable and predictable source of financing, the gap is 3 percent of GDP, which implies an exchange rate overvaluation of 5½ percent.

- The external sustainability approach suggests an NFA-stabilizing CAD of 3½ percent of GDP.[4] Taking into account EU capital transfers, the gap is 4½ percent of GDP, which implies a real exchange rate overvaluation of 8½ percent.

- The equilibrium real exchange rate approach suggests that the actual REER is about 12½ percent more appreciated than the equilibrium REER. The forecast error is 10-15 percent.

[2] This may overstate the underlying current account deficit to the extent that some of the recent sharp appreciation of the REER may prove to be temporary. Also, even a permanent real appreciation may have a smaller impact on the current account balance than the trade balance, because foreign-owned exporters' profits would fall. Conversely, the underlying current account deficit may be understated to the extent that some of the large errors and omissions could represent current account transactions.

[3] The relatively high current account deficit norm reflects the recent history of high current account deficits and projected fiscal deficits.

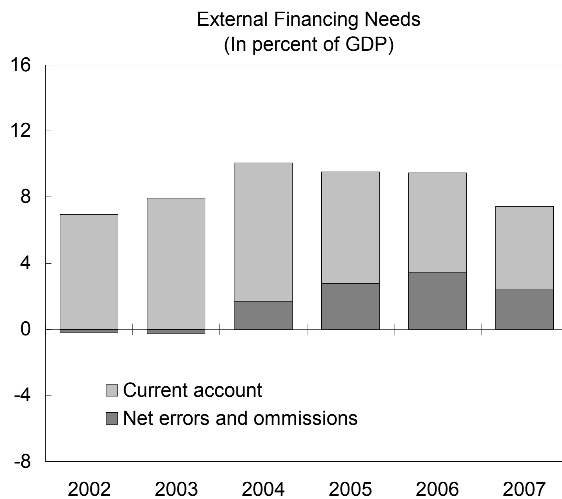
[4] To reduce net external liabilities to a less vulnerable level, a smaller current account deficit (and hence a more depreciated REER) would be needed. However, given Hungary's high degree of trade openness (and implied high elasticity of the current account balance with respect to the REER), a change to the NFA benchmark itself has only a small effect on the estimated misalignment. For example, a reduction in the NFA benchmark by 30 percentage points of GDP only changes the estimated misalignment by 1 percentage point.

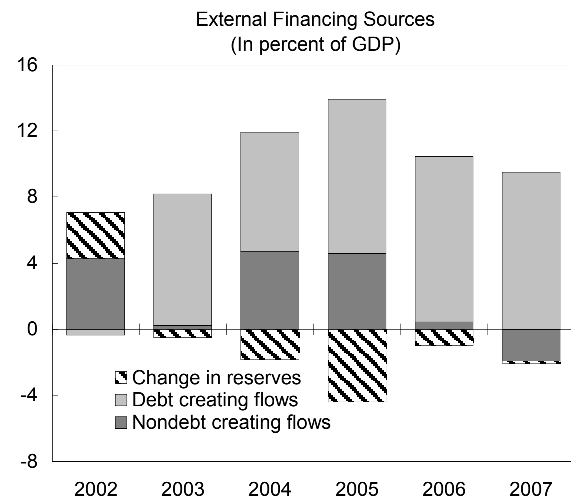
- The authorities broadly agreed that the REER is probably on the strong side, though officials at the central bank (MNB) observed that this is appropriate in light of the need to reduce inflation.

Text Table. Hungary: Real Exchange Rate Misalignment
(in percent)

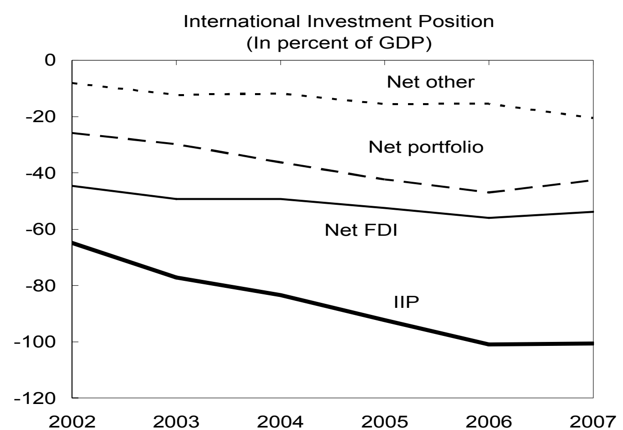
	Estimates
Macroeconomic Balance Approach	5.5
External Sustainability Approach	8.5
Equilibrium Real Exchange Rate Approach	12.5
Overall Assessment	10 above

16. **Although external financing needs declined in 2007, the composition of financing remained largely debt-creating**. Net non-debt-creating flows were negative, but this was mostly due to one-off transactions related to the change in ownership of Budapest airport (which replaced inward FDI with debt financing) and share buybacks by the state-owned oil company (which reduced portfolio equity inflows). At the same time, outward FDI and portfolio equity outflows remained strong. In 2008Q1, increased EU capital transfers lowered external financing needs, and non-debt-creating flows bounced back.





17. **The large negative net international investment position (IIP) represents an important vulnerability**. The net external liability position stabilized in 2007 as improvements in the net FDI and net portfolio positions offset a decline in the other investment position (mostly bank lending), but is still about 100 percent of GDP (Table 4). With gross external debt amounting to 97 percent of GDP, gross



external financing needs are high, especially in 2008–09 (Appendix III). The authorities observed that vulnerabilities are mitigated by the fact that the largest share of net external liabilities is due either to FDI or bank borrowing from parent banks. They added that short-term debt on a residual maturity basis (18 percent of GDP) is roughly covered by net international reserves.

18. **Following the sharp fiscal consolidation in 2007, economic growth is expected to pick up in 2008–09** (Table 5). Private consumption is projected to rise gently, as real disposable income growth increases. High capacity utilization in manufacturing and increasing EU transfers are expected to underpin an acceleration of investment. Altogether, staff project that real GDP growth will increase to 2 percent in 2008 and to 2¾ percent in 2009, slightly below the forecasts of the Ministry of Finance (MOF) and the MNB. Over the medium term, staff estimate potential GDP growth at about 3–3½ percent, based in part on the cross-country empirical analysis reported in the April 2008 *Regional Economic Outlook*. To raise potential GDP growth, reductions in the size of government (and the corresponding overall tax burden) and in the administrative burden on business are needed. For example, while Hungary ranks roughly in the middle of the new EU member states in the World Bank's *Doing Business* index, it scores relatively poorly in terms of the costs of starting a new business.

Text Table. Hungary: Key Macroeconomic Indicators, 2005-09

	2005	2006	2007	2008	2009
				Projection	
	(Year-on-year percent change, unless otherwise specified)				
Real GDP	4.1	3.9	1.3	2.0	2.8
Private consumption	3.6	1.9	-1.9	0.6	2.2
Gross fixed investment	5.3	-2.5	0.1	2.8	3.5
Exports of goods and services	11.5	19.0	14.2	13.3	9.6
Imports of goods and services	6.8	14.7	12.0	11.0	11.7
Prices and labor market					
CPI (end-year)	3.3	6.5	7.4	5.5	3.4
Unemployment rate (average, in percent)	7.2	7.5	7.4	7.8	7.7
Nominal wage growth (average)	8.7	8.2	8.0	7.7	6.0
	(In percent of GDP)				
General government balance	-7.8	-9.2	-5.5	-4.0	-3.4
Current account balance	-6.8	-6.1	-5.0	-4.9	-5.4
Net international investment position	-92.4	-100.9	-100.5	-99.6	-99.9

Sources: Hungarian authorities; and IMF staff estimates.

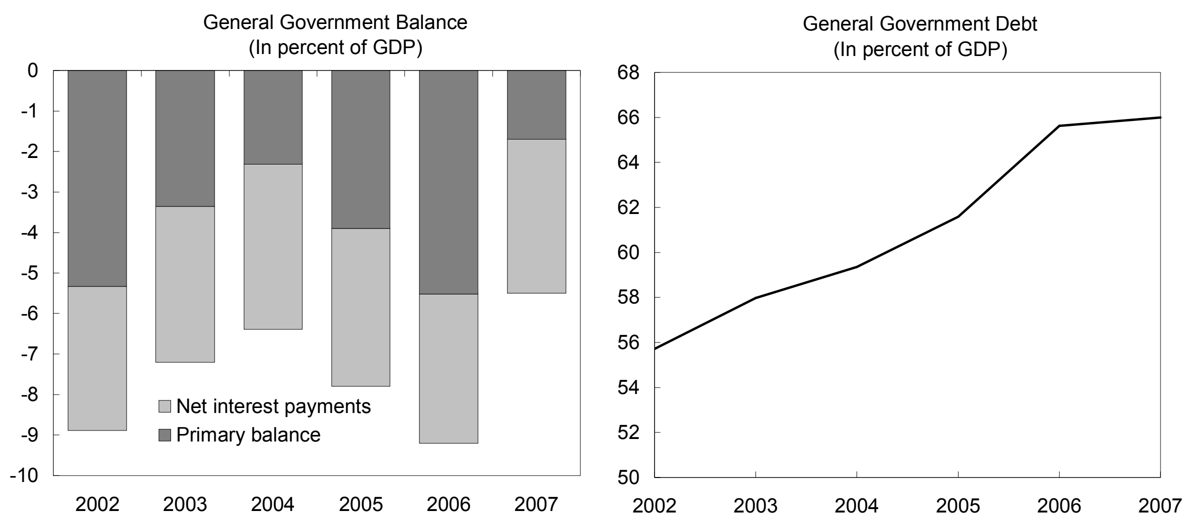
19. **The financing need associated with the current account deficit, which is expected to widen gradually to 6½ percent of GDP by 2013, is also a vulnerability.** In 2008, the trade balance, net income, and current transfers are all projected to remain roughly stable. Thereafter, the deterioration in the trade balance (due to the real exchange rate appreciation, the pick up in domestic demand, and the slowdown in partner country demand) is expected to exceed the improvements net income (due to the higher level of outward FDI) and EU current transfers. EU capital transfers are also projected to rise over the medium term. As a

result, both the net IIP position and external debt (relative to GDP) would remain broadly stable in 2008–09 but then rise gently over the medium term.

20. **Uncertainties surrounding the outlook for 2008–09 are significant**. On the upside, better-than-projected agricultural production could spur stronger GDP growth. On the downside, a worsening of external financing conditions, precipitated by either global or domestic developments, would raise borrowing costs and complicate debt rollovers. A large depreciation of the forint could temporarily improve competitiveness but would hurt household balance sheets, given large foreign-currency denominated liabilities. Wealth effects could dampen economic growth and thus worsen credit quality, potentially leading to banking system stress.

IV. Fiscal Policy—Further Consolidation Required

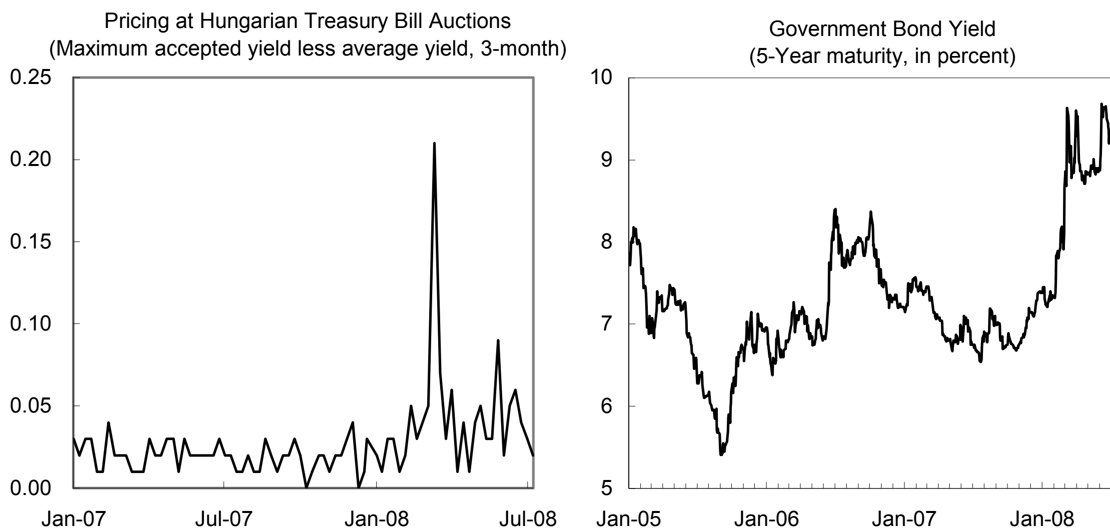
21. **Fiscal adjustment in 2007 was substantial but government debt remains high**. The general government deficit narrowed from 9¼ percent of GDP in 2006 to 5½ percent of GDP in 2007, reflecting a broadly balanced mix of higher revenue and lower expenditure (Table 6). The increase in revenue came from tax hikes and improvements in tax administration (the latter contributing ¼–⅓ percent of GDP). On the expenditure side, most of the reduction came from a lower wage bill (reflecting a nominal wage freeze and a 10 percent fall in public sector employment), lower capital expenditure (due to unusually high motorway spending in 2006), improved means-testing of energy and housing subsidies, and lower health spending (due to reform of pharmaceutical subsidies and limits on inpatient healthcare). However, even with the sharp decline in the fiscal deficit, government debt only stabilized at 66 percent of GDP. With substantial amortization due in 2008–09, the government's gross financing needs are high (Appendix IV). Given high financing needs, unsettled global financial markets, a shift in pension funds' asset allocations, and increased political uncertainty, there was some turmoil in the government bond market in early 2008 (Box 2).



Box 2. Government Securities Market Turmoil

In early 2008, bid-ask spreads in the government securities market widened sharply and an auction was less than fully subscribed. Against the background of the government's large gross financing needs, the most important factors behind the turmoil were the deterioration in global financial market conditions, a more-rapid-than-expected shift in pension funds' asset allocations toward equities, and doubts about future fiscal consolidation in light of increased political uncertainty. Since early 2008, bid-ask spreads have narrowed and auctions have been fully subscribed, though government bond yields have remained elevated, in part because primary dealers have been gradually selling their overhang of government bonds.

In response to the turmoil, the Hungarian debt management agency (AKK) announced that it would issue relatively more short-term bills, and—looking ahead—it plans to remain responsive to market participants' preferences across maturities. To improve market liquidity by facilitating foreign entry, the AKK plans to abolish the requirement that primary dealers have a physical presence in Hungary. In addition, legislative changes to accounting rules—which would deepen bond market liquidity by improving the functioning of the repo market—are being studied.



Sources: Hungarian Debt Management Agency (AKK), and staff calculations.

22. **The authorities and staff agreed that further fiscal consolidation in 2008–09 is essential**. With the trailing four-quarter fiscal deficit amounting to 4¼ percent of GDP in 2008Q2, the deficit target for 2008 as a whole of 4 percent of GDP seems attainable. Most of the adjustment is on the spending side (1¾ percentage points of GDP), reflecting the absence of one-off expenditures recorded in 2007 (the recapitalization of the state-owned railroad company and the leasing of defense equipment), the decline in the wage bill (due to a further reduction in public sector employment and a real wage freeze), and lower subsidies to households (to rail and road passengers, and to gas and heating). Given below-potential growth, the structural fiscal adjustment is nevertheless appreciable (¾ percentage points of

GDP). Against the backdrop of cautious revenue forecasts and continued progress in tax administration, revenue is likely to be slightly stronger than targeted. The authorities and staff agreed that any revenue overperformance should be saved and devoted to reducing government debt.

Text Table. Hungary: General Government, 2006-10
(In percent of GDP)

	2006	2007	2008	2009	2010
			Projection		
General government balance	-9.2	-5.5	-3.8	-3.3	-3.2
Revenues	42.6	44.6	44.7	44.2	44.2
Expenditures	51.8	50.1	48.6	47.5	47.4
Cyclically adjusted overall balance	-9.7	-5.5	-3.5	-2.9	-2.9
Cyclically adjusted overall balance (excl. one-off changes)	-9.7	-4.5	-3.5	-2.9	-2.9
Memorandum items:					
Primary balance	-5.5	-1.7	0.2	0.8	0.6
General government debt	65.6	66.0	64.9	64.2	63.3

Sources: Hungarian authorities; and IMF staff estimates.

23. **For 2009, the authorities expressed their strong commitment to the fiscal deficit target of 3.2 percent of GDP in the Convergence Program**. They acknowledged that there is no room for measures that lead to a net increase in the projected fiscal deficit, as achieving the target will require strict spending restraint (especially on wages and transfers, in line with the announced spending ceilings) and continued strong revenue growth (in line with the government's forecast for real GDP growth of 3½ percent). Based on a more conservative growth forecast, staff project a fiscal deficit of 3.3 percent of GDP. Staff consider the implied improvement in the structural fiscal balance of ½ percentage point of GDP to be appropriately ambitious, especially given below-potential growth.

24. **Given the uncertainties surrounding the outlook for 2009, there was agreement on the importance of having sizable contingency reserves (½ percent of GDP) in the budget**. High government debt makes debt service vulnerable to higher interest rates and exchange rate depreciation. High inflation puts upward pressure on certain spending items, such as wages, social transfers, transfers to local governments, and subsidies to state-owned enterprises. Moreover, the loss-making state-owned railroad company remains a significant source of fiscal risk. Another concern is the increasing debt of local governments.

25. **For 2010, staff supported further fiscal consolidation in line with the Convergence Program, which implies adjustment of ½ percentage point of GDP**. While already-enacted reforms will yield some fiscal savings (primarily from further improvements in the targeting of social benefits and a further increase in the retirement age), measures to fully achieve the target have not yet been outlined. Thus, staff projections assume only very small reductions in the fiscal deficit in 2010 and beyond. In this scenario, public debt would fall modestly from 66 percent of GDP in 2007 to 61 percent of GDP in 2013.

26. **The government has proposed a rules-based fiscal framework to support fiscal consolidation**. The proposed fiscal responsibility law (FRL) would establish fiscal rules (a ceiling on central government debt in real terms, a floor of zero on the primary balance, and a pay-as-you-go constraint on discretionary budget items) and strengthen the medium-term expenditure framework by making the currently indicative ceilings binding. The proposed parliamentary budget office would provide independent and expert scrutiny of compliance with the fiscal rules. Proposed amendments to the constitution would provide a role for the constitutional court in enforcing the fiscal rules and tighten constraints on local government borrowing. Staff supported the introduction of a rules-based fiscal framework, as this would help deliver the needed further fiscal consolidation and lower borrowing costs for the government (Box 3). As prospects for parliamentary approval of the constitutional changes (which require a two-thirds majority) are uncertain, staff suggested that passage of the FRL without the constitutional changes would still provide a valuable signal of the government's commitment to fiscal discipline.

Box 3. Numerical Fiscal Rules and Government Bond Yields

The Hungarian parliament is currently considering a rules-based fiscal framework, which is intended to signal commitment to sound public finances. Staff empirical analysis of numerical fiscal rules—using a quantitative index designed to capture the extent to which they are likely to promote fiscal discipline—indicates that such a framework could lower the government's long-run borrowing costs by improving the fiscal balance and possibly by providing assurance regarding future fiscal policies ("credibility effect").[1] The key results are as follows:

- In EU-25 countries over the period 1990–2005, the adoption (or tightening) of a fiscal rule typically led to an increase in the cyclically-adjusted primary balance by about 0.4 percent of GDP, yielding a reduction in government bond yields by about 5 bps on impact and about 30 bps in the long run.

- Fiscal rules are not automatically credible. Rather, the credibility effect appears to be limited to countries with better fiscal track records and stronger institutional frameworks. When it exists, the credibility effect overshadows the impact of the current fiscal balance, suggesting that a credible rule is sufficiently informative about both future and current fiscal policy. In this case, the adoption (or tightening) of a fiscal rule typically reduced bond yields by about 10–40 bps on impact and up to 65 bps in the long run.

- The institutional underpinning of the fiscal rule matters, with higher credibility effects observed when the fiscal rule is accompanied by an independent body mandated to monitor the rule's implementation and contribute to its enforcement.

1/ Xavier Debrun and Bikas Joshi, "Credibility Effects of Numerical Fiscal Rules: An Empirical Investigation," in *Hungary—Selected Issues*.

27. **The authorities and staff discussed revenue-neutral tax measures that could enhance economic growth over the medium term**. A shift of the tax burden away from labor and to consumption and wealth would improve work incentives and boost employment. One possibility would be to combine a cut in labor taxes with increases in the value-added tax (VAT) rate and excise duties. This could be accompanied by a reduction of exemptions, which would broaden the tax base. More generally, further simplification of the tax system and improvement in tax administration would cut compliance costs and limit opportunities for tax evasion. Staff also suggested the eventual introduction of a property tax accompanied by cuts in labor taxes, but the authorities noted the strong popular opposition to a property tax.

28. **Over the medium term, further reforms of the pension, health, and education sectors are necessary to reduce the ratio of government spending to GDP**. In the pension system, the recently-enacted measures go in the right direction and will be strengthened by steps already legislated to take effect by 2013; looking ahead, the most important parametric change is a further increase in the effective retirement age. In health care, the key tasks are to improve the governance of hospitals and increase efficiency by adopting a sound regulatory framework. In education, enhanced coordination between local governments, expanded performance-based financing, and greater autonomy of higher education institutions would increase efficiency. In addition, social transfers could be better targeted by increasing means testing and tightening eligibility criteria. The authorities agreed on the importance of restraining the growth of government spending, but pointed to the need for gradual changes to maintain social cohesion.

V. Monetary Policy—Higher Interest Rates May Be Necessary

29. **The exchange rate band was removed in early 2008, moving Hungary to a floating exchange rate regime**. Monetary policy is now able to focus exclusively on the inflation target, with exchange rate movements factored into the setting of the policy interest rate to the extent that they affect the outlook for inflation. In addition, the elimination of the band has removed the possibility of a one-way bet against the forint in a period of financial market turmoil, and may help to increase awareness of the risks associated with lending and borrowing in foreign currency.

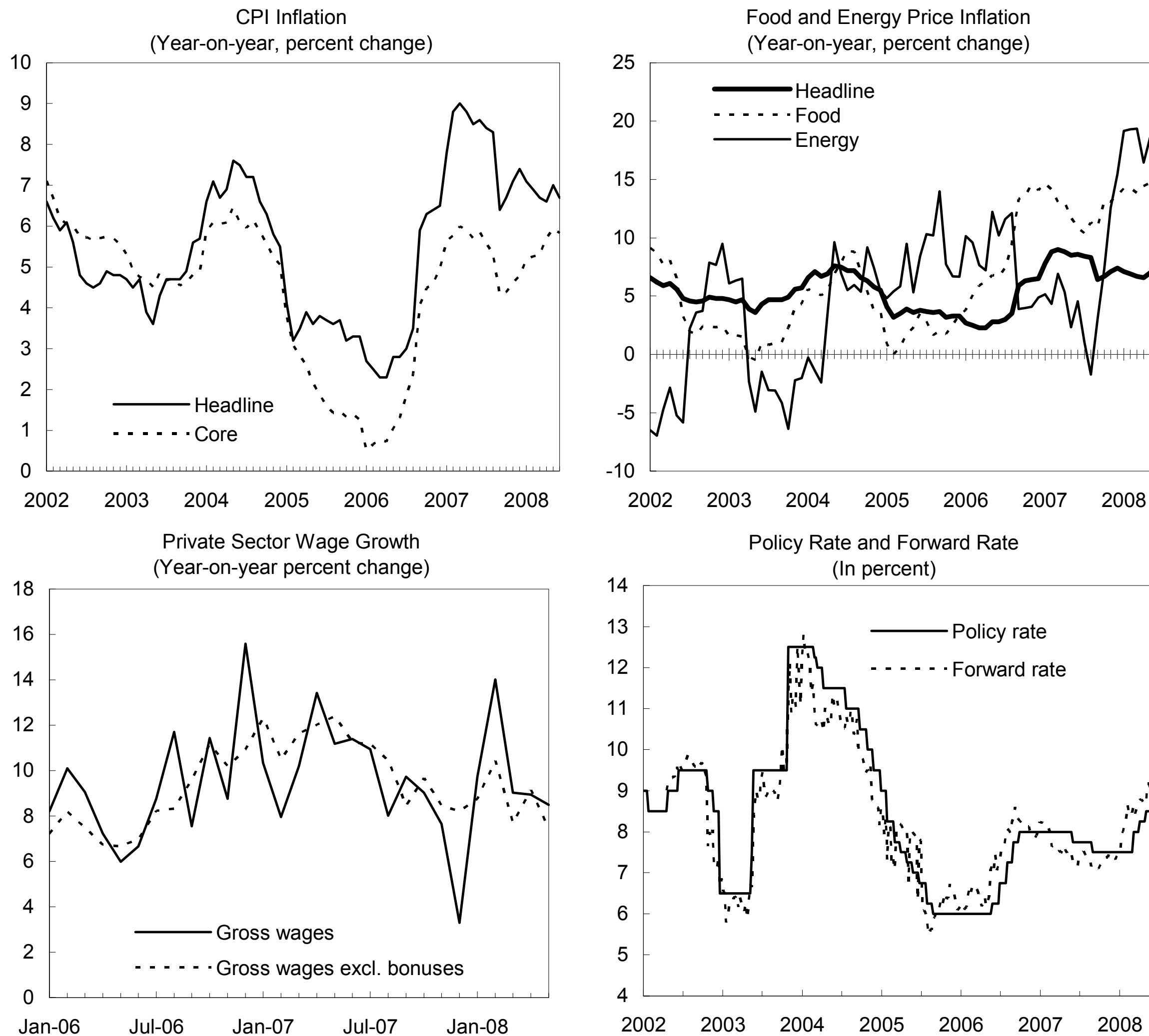
30. **Monetary policy has been tightened over the past half year in response to an increase in inflationary pressures**. CPI inflation has fallen over the past year, to 6¾ percent in June 2008, though high food and energy price inflation has prevented a more rapid decline. The weights of food and energy in the CPI basket in Hungary are slightly above the average for the euro area. Core CPI inflation rose in the first half of 2008, reflecting in part high private sector wage growth. Private sector wages were boosted by the increase in the minimum wage at the beginning of 2008, as labor market conditions were not yet loose (the output gap was still slightly positive in 2007, despite the economic slowdown). Household

Text Table. CPI Weights 1/

	Food	Energy
Hungary	17	14
NMS-9	21	14
Euro area	14	10

Source: Eurostat.
1/ HICP weights.

inflation expectations have been roughly stable in recent quarters, in line with actual inflation.



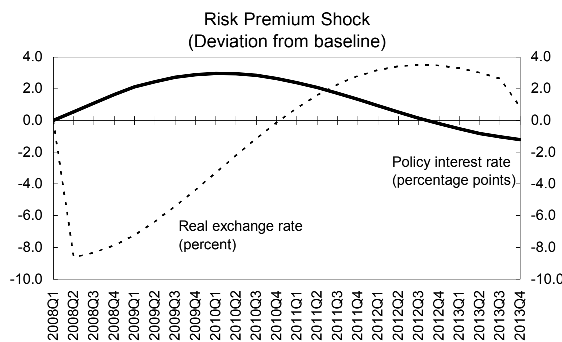
31. **Looking forward, the authorities and staff agreed that the policy interest rate may need to rise further, depending on the evolution of inflationary pressures**. In staff's baseline scenario, which is similar to that of the MNB, the appreciation of the nominal effective exchange rate in recent months and projected below-potential growth in 2008–09 (which opens a negative output gap) are expected to reduce inflation to the 3 percent target by the first half of 2010. However, risks to the outlook for inflation are significant (Box 4), and tilted to the upside. On the downside, a sharper-than-projected slowdown in external demand (for example, stemming from the euro area) would dampen

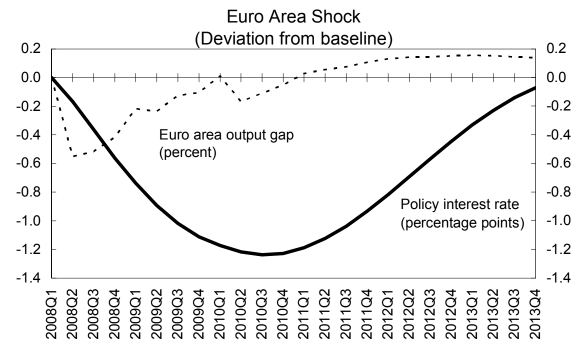
Box 4. Monetary Policy Responses to Global Financial Shocks

The outlook for inflation is surrounded by important risks, two of which are related to the ongoing turbulence in global financial markets: a possible increase in the risk premium on forint-denominated assets and a sharper-than-projected slowdown in euro area GDP growth. Using a small, two-economy macroeconomic model, staff have simulated the effects of these two shocks on Hungarian GDP, inflation, real exchange rate, and policy interest rate.[1] Subject to the usual caveats due to the model's parsimony, the results illustrate that substantial policy responses may be needed if these risks are realized:

- If the risk premium on forint-denominated assets increases, resulting in a depreciation of the exchange rate, then the central bank may need to raise interest rates. Simulation results suggest that a 10 percent exchange rate depreciation could require a higher policy rate over time by as much as 300 bps, depending on the size of the pass-through of exchange rate depreciation to inflation. One important uncertainty relates to the impact of exchange rate depreciation on households' spending, given their large (and rising) foreign-currency denominated liabilities.

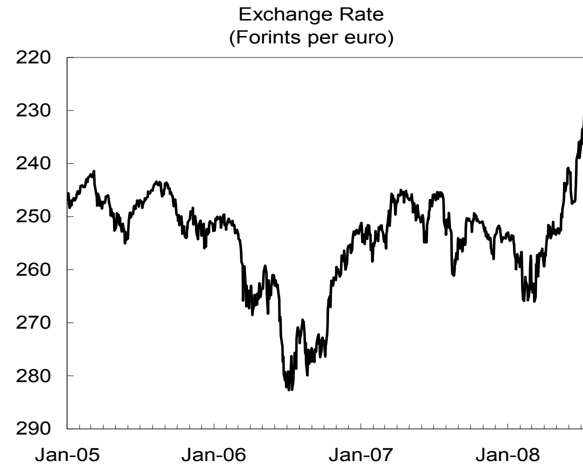
- Conversely, if external demand falls more sharply than currently envisaged, then the central bank may need to cut interest rates. Simulation results suggest that a large adverse shock to euro area aggregate demand that results in euro area GDP growth falling by ½ percentage point below baseline could imply a cut in the policy rate in Hungary over time by as much as 125 bps.





[1] Srobona Mitra, "Monetary Policy Responses to Real and Portfolio Shocks in Hungary" in *Hungary—Selected Issues*.

inflation. On the upside, further increases in global food and energy prices would boost inflation, which could affect inflation expectations and thus wage pressures. Also, an increase in the risk premium on forint-denominated assets—reflecting, for example, a further tightening of global financial market conditions or increased political uncertainty in Hungary—would put downward pressure on the exchange rate and thereby tend to boost inflation.



VI. Financial Stability—Risks Need To Be Addressed

32. **Financial system risks have increased over the past year, reflecting both the global financial market turbulence and continued rapid credit growth**. High-quality assessments of risks to the financial system are published by the MNB—the *Financial Stability Report*—and the Hungarian Financial Supervisory Authority (HFSA)—the *Financial Risk Outlook*.

- *The banking system is well-capitalized and profitable, though these indicators deteriorated in 2007* (Table 7). The banking system's capital adequacy ratio is close to 11 percent, but has fallen every year since 2004. Return on equity fell to 18 percent, due in part to lower interest margins, in turn reflecting increased competition. The nonperforming loan ratio has been stable in part because banks have sold overdue loans to work-out companies.

- *Credit risks have increased*. Rapid credit growth has been driven in part by the easing of lending standards for households, including longer maturities, higher loan-to-value ratios for mortgages, and new products with higher risk profiles (such as yen-based loans). To address households' large and increasing foreign currency exposures, the MNB and the HFSA recently announced prudential guidelines on foreign currency risk management and consumer protection. Also, the HFSA recently published the criteria it will use to implement Pillar II assessments. Hungarian banks have no direct exposure to the U.S. subprime market.

- *Liquidity risks have increased too*. Robust credit growth has led to a rise in banks' loan-to-deposit ratios, a decline in liquid asset ratios, and an increase in external funding to 30 percent of total liabilities. The decline in global risk appetite has increased banks' external funding costs and shortened maturities. External funding from non-parent sources, which amounts to about half of total external funding, is potentially more volatile than funding from parent banks. Financial strains in mature markets are driving a slowdown in parent banks' lending growth, which will likely

affect emerging market countries. With global financial conditions still unsettled, the magnitude and timing of any additional spillover effects on Hungary are uncertain.

33. **The authorities are taking additional measures to address these risks**. Regarding credit risks, the MNB conducts top-down stress tests and, with the HFSA, is working on the implementation of bottom-up stress-testing. A full-list credit registry for corporate borrowers already exists. Officials and staff agreed that a mandatory, full-list credit registry for households would not only improve banks' credit risk management but also enhance consumer protection by discouraging the build-up of excessive household debt, though officials pointed to privacy concerns. Turning to liquidity risks, the HFSA is conducting a review of banks' liquidity management practices, which will strengthen the HFSA's capacity to supervise liquidity management. Staff suggested that the HFSA develop and publish explicit recommendations on banks' liquidity management as soon as possible and that, in the meantime, the HFSA ensure that banks have effective contingency arrangements.

34. **The authorities are reviewing and testing financial safety nets**. The HFSA has the necessary supervisory tools to encourage banks to take corrective action, such as the authority to order a cessation of activities, a replacement of management, or an increase in capital. Staff suggested that the introduction of a formal system of early remedial action could be considered. Domestic crisis management arrangements between the MNB, the HFSA, and the MOF have been established and tested. While the deposit insurance scheme is already in compliance with the relevant EU directive, the authorities are reviewing the co-insurance rules and the procedures to ensure rapid payments to depositors. Given Hungary's important cross-border linkages, both to parent banks in western Europe and to subsidiary banks in southeastern Europe, the Hungarian authorities recognize the importance of effective communication and collaboration with financial authorities in other countries. Cross-border MOUs are already in place and a crisis simulation exercise is being planned.

Table 1. Hungary: Main Economic Indicators, 2003-09

	2003	2004	2005	2006	2007	2008	2009
						Proj.	
Real economy (change in percent)							
Real GDP	4.2	4.8	4.1	3.9	1.3	2.0	2.8
Private consumption	7.8	2.8	3.6	1.9	-1.9	0.6	2.2
Gross fixed investment	2.2	7.6	5.3	-2.5	0.1	2.8	3.5
Exports	6.2	15.6	11.5	19.0	14.2	13.3	9.6
Imports	9.3	13.4	6.8	14.7	12.0	10.9	11.8
CPI (end year)	5.7	5.5	3.3	6.5	7.4	5.5	3.4
CPI (average)	4.6	6.8	3.6	3.9	7.9	6.3	4.2
Unemployment rate (average, in percent)	5.9	6.1	7.2	7.5	7.4	7.8	7.7
Gross domestic investment (percent of GDP) 1/	25.2	25.9	23.6	23.1	23.0	23.8	25.8
Gross national saving (percent of GDP, from BOP)	17.3	17.5	16.8	17.0	18.0	19.0	20.5
General government (percent of GDP), ESA-95 basis 2/							
Overall balance	-7.2	-6.4	-7.8	-9.2	-5.5	-3.8	-3.3
Primary balance	-3.4	-2.3	-3.9	-5.5	-1.7	0.2	0.8
Debt	58.0	59.4	61.7	65.6	66.0	64.9	64.2
Money and credit (end-of-period, percent change)							
M3	12.0	11.6	14.6	13.7	11.1	…	…
Credit to nongovernment	34.4	19.2	18.9	17.1	17.3	...	...
Interest rates (percent)							
T-bill (90-day, average)	8.2	11.1	6.8	7.0	7.6	...	...
Government bond yield (5-year, average)	6.4	9.7	8.0	6.9	7.0	...	...
Balance of payments							
Goods and services trade balance (percent of GDP)	-3.8	-2.7	-0.5	0.4	2.5	2.6	1.9
Current account (percent of GDP)	-7.9	-8.4	-6.8	-6.1	-5.0	-4.8	-5.4
Reserves (in billions of US dollars)	12.8	16.0	18.6	21.6	24.0	26.4	27.6
Gross external debt (percent of GDP) 3/	61.6	67.0	75.0	90.5	96.4	94.2	93.3
Net international investment position (in percent of GDP)	77.2	83.5	92.4	100.9	100.5	99.5	99.9
Exchange rate							
Exchange regime				Floating			
Present rate (July 21, 2008)				Ft 144.4 = US$1			
Nominal effective rate (2000=100)	108.2	110.7	111.6	105.1	111.8	...	...
Real effective rate, CPI basis (2000=100)	121.6	130.0	132.6	127.0	142.5	...	...

Sources: Hungarian authorities; IMF, International Financial Statistics; Bloomberg; and IMF staff estimates.

1/ Includes change in inventories.
2/ Consists of the central budget, social security funds, extrabudgetary funds, and local governments, as well as motorway investments previously expected to be recorded off-budget in 2006-07.
3/ Including inter-company loans, and nonresident holdings of forint-denominated assets.

Table 2. Hungary: Demand Components of GDP, 2002-07

	2002	2003	2004	2005	2006	2007
	(Year-on-year growth in percent)					
GDP	4.4	4.2	4.8	4.1	3.9	1.3
Consumption	9.2	7.5	2.4	3.1	2.4	-2.1
Private	9.9	7.8	2.8	3.6	1.9	-1.9
Public	5.3	5.1	-0.2	-0.1	5.8	-3.1
Gross fixed investment	10.2	2.2	7.6	5.3	-2.5	0.1
Private	21.9	10.6	7.6	2.3	-5.4	3.1
Public	-18.7	-29.2	7.3	22.7	11.4	-12.1
Exports of goods and services	3.9	6.2	15.6	11.5	19.0	14.2
Imports of goods and services	6.8	9.3	13.4	6.8	14.7	12.0
	(Contribution to growth, in percent)					
GDP	4.4	4.2	4.8	4.1	3.9	1.3
Consumption	6.8	5.8	1.9	2.4	1.9	-1.6
Private	6.3	5.3	2.0	2.5	1.3	-1.3
Public	0.5	0.5	0.0	0.0	0.5	-0.3
Gross fixed investment	2.4	0.5	1.8	1.3	-0.6	0.0
Private	3.6	2.1	1.6	0.5	-1.1	0.6
Public	-1.3	-1.5	0.3	0.8	0.5	-0.6
Change in inventories	-2.7	0.1	0.3	-2.5	0.0	1.2
Net exports	-2.3	-2.7	0.8	3.6	3.7	2.4
Exports of goods and services	2.9	4.6	11.9	9.6	17.0	14.5
Imports of goods and services	-5.2	-7.3	-11.0	-6.0	-13.4	-12.1

Table 3. Hungary: Balance of Payments, 2003-09

	2003	2004	2005	2006	2007	2008	2009
						Proj.	
	(In billions of U.S. dollars)						
Current account balance	-6.7	-8.6	-7.5	-6.9	-6.9	-8.1	-9.5
In percent of GDP	-7.9	-8.4	-6.8	-6.1	-5.0	-4.9	-5.4
Merchandise trade balance	-3.3	-3.0	-1.9	-1.2	2.0	2.3	1.4
In percent of GDP	-3.9	-3.0	-1.7	-1.0	1.4	1.4	0.8
Services balance	0.1	0.3	1.3	1.6	1.5	1.9	2.0
In percent of GDP	0.1	0.3	1.2	1.4	1.1	1.2	1.1
Exports of goods and services	52.0	66.5	75.0	87.7	110.8	141.4	158.5
Percentage change in volume	6.2	15.6	11.5	19.0	14.2	13.3	9.6
Imports of goods and services 1/	55.2	69.3	75.6	87.3	107.3	137.1	155.1
Percentage change in volume	9.3	13.4	6.8	14.7	12.0	11.0	11.7
Net income	-4.2	-6.1	-7.1	-7.8	-10.9	-13.1	-14.0
In percent of GDP	-4.9	-6.0	-6.5	-6.9	-7.9	-7.9	-7.9
Net transfers	0.7	0.3	0.2	0.5	0.4	0.7	1.0
In percent of GDP	0.8	0.3	0.2	0.4	0.3	0.4	0.6
Capital account, net	0.0	0.3	0.9	0.9	1.4	2.4	3.1
In percent of GDP	0.0	0.3	0.8	0.8	1.0	1.4	1.8
Financial account, net	7.1	11.9	14.5	11.4	9.1	11.4	11.0
In percent of GDP	8.4	11.7	13.1	10.1	6.5	6.8	6.2
Net direct investment	0.5	3.4	5.5	3.5	1.4	4.5	5.0
In percent of GDP	0.6	3.3	4.9	3.1	1.0	2.7	2.8
Net portfolio investment	3.3	7.3	4.4	6.7	-0.8	3.7	4.0
In percent of GDP	3.9	7.1	4.0	5.9	-0.6	2.2	2.2
Net other investment	3.3	1.3	4.7	1.2	8.5	3.1	2.0
In percent of GDP	3.9	1.2	4.2	1.1	6.1	1.9	1.1
Errors and omissions	0.2	-1.8	-3.1	-3.7	-3.4	-3.4	-3.4
In percent of GDP	0.3	-1.7	-2.8	-3.3	-2.4	-2.0	-1.9
Overall balance	0.6	1.9	4.9	1.7	0.2	2.2	1.2
Net reserves (change; - = increase)	-0.6	-1.9	-4.9	-1.2	-0.2	-2.2	-1.2
Memorandum of items (end of period):							
Gross reserves	12.8	16.0	18.6	21.6	24.0	26.3	27.5
In months of goods and services imports	2.8	2.8	3.0	3.0	2.7	2.3	2.1
Gross external debt, in percent of GDP 2/	61.6	67.0	75.0	90.5	96.4	94.2	93.3
Net external debt, in percent of GDP 3/	28.1	32.0	34.3	42.0	46.6	40.9	41.4

Sources: Hungary National Bank; and staff estimates.

1/ The central bank believes that due to methodological changes, 2005 imports may be understated by up to 2 percentage points of GDP

2/ Including intercompany loans.

3/ Foreign liabilities net of foreign assets, excluding equity but including intercompany loans.

Table 4. Hungary: Net International Investment Position, 2002-07
(In percent of GDP)

	2002	2003	2004	2005	2006	2007
Net assets	-64.9	-77.2	-83.5	-92.4	-100.9	-100.5
Net FDI	-44.6	-49.2	-49.2	-52.5	-55.9	-53.8
Net portfolio investment	-25.8	-29.8	-36.3	-42.3	-46.9	-42.6
Net other investment	-8.1	-12.3	-11.8	-15.6	-15.4	-20.5
Government and Monetary Authority	-10.2	-11.8	-13.9	-12.0	-14.9	-16.9
Net portfolio investment	-21.0	-23.1	-25.1	-27.0	-28.9	-29.1
o/w net debt securities	-20.8	-22.4	-24.1	-26.6	-27.9	-27.9
Net FDI	0.0	0.0	0.0	0.0	0.0	0.0
Net other investment	-2.8	-2.8	-2.7	-3.0	-3.4	-4.1
Monetary institutions 1/						
Net portfolio investment	-1.5	-2.3	-3.8	-5.5	-8.3	-9.1
o/w net debt securities	-0.6	-1.1	-2.5	-3.5	-5.8	-7.6
Net FDI	-3.1	-3.4	-3.7	-3.7	-3.4	-4.5
Net other investment	-3.8	-7.3	-8.3	-11.9	-11.6	-12.8
Other sectors 1/						
Net portfolio investment	-3.4	-4.5	-7.3	-9.9	-9.8	-4.4
Net FDI	-35.1	-39.1	-39.4	-42.4	-45.2	-43.0
Net other investment	-1.5	-2.2	-0.9	-0.7	-0.4	-3.6
Memo:						
Gross liabilities	99.6	118.1	125.6	144.2	161.1	168.7
o/w Debt	54.5	61.6	67.0	74.9	90.6	96.5
Short term	6.4	8.9	8.9	11.3	11.8	14.4
Long term	38.4	40.9	46.5	51.7	62.3	64.0
Intercompany debt	9.7	11.8	11.6	11.9	16.5	18.1

Source: MNB; and IMF staff estimates.
1/ The net IIP positions are not available for these sectors, but most of the components are.

Table 5. Hungary: Staff's Illustrative Medium-Term Scenario, 2003-13

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
						Staff projections					
	(In percent, unless otherwise indicated)										
Real GDP growth	4.2	4.8	4.1	3.9	1.3	2.0	2.8	3.6	4.0	3.4	3.4
Nominal GDP, forint billions	18,941	20,718	22,042	23,795	25,406	27,546	29,507	31,639	33,886	36,089	38,417
Inflation (CPI; year average basis)	4.6	6.8	3.6	3.9	7.9	6.3	4.2	3.5	3.0	3.0	3.0
Inflation (CPI; end-year basis)	5.7	5.5	3.3	6.5	7.4	5.5	3.4	3.0	3.0	3.0	3.0
	(Annual percentage change, constant prices)										
Domestic demand	6.6	3.7	0.5	0.3	-1.1	-1.3	5.1	5.4	5.3	3.8	3.6
Consumption	7.5	2.5	3.2	2.4	-2.1	0.3	2.1	3.5	4.1	4.1	4.2
Gross fixed capital formation	2.2	7.6	5.3	-2.5	0.1	2.8	3.5	4.7	4.8	4.8	4.8
Exports of GNFS	6.2	15.6	11.5	19.0	14.2	13.3	9.6	10.4	11.4	12.0	12.4
Imports of GNFS	9.3	13.4	6.8	14.7	12.0	10.9	11.8	11.9	12.5	12.4	12.7
	(In percent of GDP, unless otherwise indicated)										
External current account balance	-7.9	-8.4	-6.8	-6.1	-5.0	-4.8	-5.4	-5.9	-6.1	-6.3	-6.5
Gross national saving	17.3	17.5	16.8	17.0	18.0	19.0	20.5	20.6	21.3	21.1	20.6
Gross national investment 1/	25.2	25.9	23.6	23.1	23.0	23.8	25.8	26.4	27.4	27.4	27.1
Capital account, net	0.0	0.3	0.8	0.8	1.0	1.4	1.8	1.5	1.6	1.6	1.6
Financial account, net	8.4	11.7	13.1	10.1	6.5	6.8	6.2	6.7	6.7	6.7	6.8
Net international investment position	77.2	83.5	92.4	100.9	100.5	99.5	99.9	100.6	101.2	102.4	103.1
Gross external debt 2/	61.6	67.0	75.0	90.5	96.4	94.2	93.3	93.4	93.5	93.7	94.0
Private sector savings-investment balance 3/	-1.2	-2.0	1.0	3.1	0.5	-1.0	-2.1	-2.7	-3.0	-3.3	-3.6
Gross private savings	19.2	20.6	20.7	22.0	19.9	19.2	20.6	20.8	21.4	21.1	20.5
Gross private investment	20.5	22.6	19.7	18.9	19.4	20.2	22.7	23.4	24.4	24.4	24.1
General government (ESA-95)											
Revenue, primary	41.6	42.2	42.0	42.4	44.3	44.6	44.1	44.1	44.1	44.1	44.1
Expenditure, primary	45.0	44.5	45.9	47.9	46.0	44.4	43.3	43.5	43.4	43.4	43.3
Primary balance	-3.4	-2.3	-3.9	-5.5	-1.7	0.2	0.8	0.6	0.7	0.7	0.8
General government balance (including the costs of pension reform)	-7.2	-6.4	-7.8	-9.2	-5.5	-3.8	-3.3	-3.2	-3.1	-3.0	-2.9
Net interest	3.8	4.1	3.9	3.7	3.8	4.0	4.1	3.8	3.8	3.7	3.7
General government debt	58.0	59.4	61.7	65.6	66.0	64.9	64.2	63.3	62.4	61.8	61.0
Memorandum items											
Output gap	-0.4	0.4	0.8	1.5	0.1	-1.0	-1.3	-0.9	-0.2	-0.1	0.0
Potential GDP growth	4.3	4.1	3.6	3.2	3.0	3.1	3.1	3.2	3.3	3.3	3.3
Structural general government balance	-7.1	-6.5	-8.0	-9.7	-5.5	-3.5	-2.9	-2.9	-3.0	-3.0	-3.0
Structural primary balance	-3.2	-2.4	-4.1	-6.0	-1.7	0.5	1.1	0.9	0.7	0.7	0.7

Sources: Hungarian authorities; and staff estimates.
1/ Includes change in inventories.
2/ Includes intercompany loans.
3/ Consistent with the balance of payments data (not necessarily with the national accounts data).

Table 6. Hungary: Consolidated General Government, 2003-09 1/
(In percent of GDP, unless otherwise indicated)

	2003	2004	2005	2006	2007	2008	2009
					Prelim.	Proj.	Proj.
Total revenues	41.9	42.6	42.2	42.6	44.6	44.7	44.2
Current revenues and current grants	41.5	42.0	41.6	41.8	44.1	43.3	42.6
Tax revenues total	37.7	37.5	37.2	37.0	39.6	39.5	39.2
Taxes on income	9.3	8.7	8.7	9.1	10.2	10.0	10.0
Personal income tax	7.1	6.6	6.6	6.7	7.2	7.3	7.3
Corporate income tax	2.2	2.1	2.1	2.3	2.8	2.7	2.7
Other income tax	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Social security contributions	12.5	12.3	12.6	12.6	13.6	13.7	13.7
Taxes on production and imports	15.5	16.0	15.5	15.0	15.4	15.4	15.1
Of which : VAT	8.1	8.7	8.3	7.4	7.8	7.7	7.6
Property taxes	0.3	0.4	0.3	0.2	0.3	0.3	0.3
Other taxes	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Current non tax revenues total	3.6	4.2	4.0	4.5	3.5	3.1	2.7
Of which : interest	0.3	0.3	0.2	0.3	0.3	0.1	0.1
Current grants	0.2	0.3	0.4	0.2	1.0	0.6	0.6
Capital revenues and capital grants	0.4	0.5	0.6	0.9	0.5	1.5	1.6
Total expenditures	49.1	48.9	50.0	51.8	50.1	48.6	47.5
Current expenditures and current transfers	43.6	44.1	44.7	45.7	44.7	43.1	42.5
Goods and services	19.7	19.0	19.0	19.1	17.9	17.0	16.8
Of which : wages and salaries 2/	13.1	12.6	12.6	12.2	11.4	11.1	11.1
Transfers	19.8	20.7	21.6	22.6	22.7	22.0	21.6
Of which : to households	16.6	17.1	17.8	18.5	18.2	18.4	18.2
Interest payments	4.1	4.4	4.1	4.0	4.1	4.1	4.2
Capital expenditures and capital transfers	5.5	4.8	5.3	6.2	5.4	5.5	5.0
Capital expenditures	3.3	3.3	3.9	4.3	3.6	3.6	3.2
Capital transfers	2.3	1.5	1.4	1.9	1.8	1.9	1.8
General government balance	-7.2	-6.4	-7.8	-9.2	-5.5	-3.8	-3.3
Net interest	-3.8	-4.1	-3.9	-3.7	-3.8	-4.0	-4.1
Primary balance	-3.4	-2.3	-3.9	-5.5	-1.7	0.2	0.8
Memorandum items:							
Output gap	-0.4	0.4	0.8	1.5	0.1	-1.0	-1.3
Structural general government balance	-7.1	-6.5	-8.0	-9.7	-5.5	-3.5	-2.9
Gross public debt	58.0	59.4	61.7	65.6	66.0	64.9	64.2

Sources: Hungarian authorities; and staff estimates.

1/ Data are classified following the ESA'95 methodology, as reported to the European Commission.
2/ Including social security contributions.

Table 7. Financial Soundness Indicators for the Banking Sector, 2003-07
(In percent unless otherwise indicated, end of period)

	2003	2004	2005	2006	2007 1/
Capital adequacy					
Regulatory capital to risk-weighted assets 2/	11.8	12.4	11.6	11.0	10.8
Capital (net worth) to assets	8.3	8.5	8.2	8.3	8.3
Asset composition and quality					
Annual growth of bank loans	33.2	16.9	19.8	18.4	22.2
Sectoral distribution of bank loans (in percent of total)					
Corporates	49.5	48.4	45.7	43.2	39.8
o/w in foreign currency	20.2	21.6	21.8	20.3	20.9
Households	24.3	27.0	29.2	31.5	32.7
o/w in foreign currency	1.2	3.9	9.5	14.8	19.3
Other loans 3/	26.2	24.6	25.0	25.3	27.5
o/w in foreign currency	18.3	17.4	18.8	19.1	22.5
Financial institutions 4/	11.6	12.5	12.3	11.3	10.7
Central government	1.5	1.1	0.6	0.5	0.5
Nonresidents	6.5	4.5	5.1	6.2	9.1
Other 5/	6.6	6.5	7.0	7.2	7.2
Denomination of FX loans to corporates					
EUR	84.8	79.26	74.80	70.7	67.8
USD	9.8	6.73	5.70	4.7	5.1
CHF	5.3	13.91	19.30	24.6	26.7
Other	0.1	0.10	0.20	0.0	0.4
NPLs to gross loans	2.6	2.7	2.5	2.5	2.4
Provisions to NPLs	47.3	51.3	54.4	53.9	58.1
NPLs net of provisions to capital	10.7	10.0	9.0	9.2	8.4
Earnings and profitability					
ROA (after tax)	1.5	2.0	2.0	1.8	1.4
ROE (after tax)	19.3	25.3	24.7	24.0	18.1
Net interest income to gross income	65.5	65.9	64.4	64.7	61.3
Noninterest expenses to gross income	56.4	50.1	48.6	48.7	50.2
Personnel expenses to noninterest expenses	43.4	45.7	47.2	48.3	48.9
Trading and fee income to total income	31.4	32.3	33.8	32.3	36.1
Spread between loan and deposit rates	3.7	3.6	3.7	3.5	3.2
Liquidity					
Liquid assets to total assets	19.5	21.1	21.0	20.0	16.4
Liquid assets to short term liabilities	31.4	35.6	35.7	36.8	30.5
Loans to deposits	99.7	103.7	107.7	109.9	121.6
FX liabilities(own capital is excluded) to total liabilities(own capital is excluded)	30.5	30.0	34.4	39.3	42.4
Sensitivity to market risk					
Net open position in FX to capital	2.1	6.0	3.5	7.2	6.0

Source: Magyar Nemzeti Bank.

1/ Data for 2007 are the latest available, but not totally audited yet.
2/ Data for 2007 is corrected with expected reinvested earnings.
3/ "Other loans" exclude interbank deposits, but include loans to other domestic banks.
4/ "Financial institutions"comprise nonbank financial institutions such as financial and investment companies, financial auxiliary companies, insurers and pension funds.
5/ "Other" comprise loans to local government, the central bank, domestic banks, money market funds, non-profit institutions serving households.

INTERNATIONAL MONETARY FUND

HUNGARY

Staff Report for the 2008 Article IV Consultation—Informational Annex

Prepared by the European Department

July 29, 2008

Contents Page

Appendices

I. Fund Relations 2
II. Statistical Issues 4
III. External Debt Sustainability 8
IV. Public Sector Debt Sustainability 10

APPENDIX I. HUNGARY: FUND RELATIONS
(As of June 30, 2008)

I. **Membership Status**: Joined on May 6, 1982; Article VIII.

II. **General Resources Account**:

	SDR Million	Percent of Quota
Quota	1,038.40	100.00
Fund holdings of currency	962.02	92.64
Reserve position in Fund	76.38	7.36

III. **SDR Department**

	SDR Million	Allocation
Holdings	59.61	N/A

IV. **Outstanding Purchases and Loans**: None

V. **Financial Arrangements**:

Type	Approval Date	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-by	3/15/96	2/14/98	264.18	0.00
Stand-by	9/15/93	12/14/94	340.00	56.70
EFF	2/20/91	9/15/93	1,114.00	557.24

VI. **Projected Obligations to Fund**: None

VII. **Exchange Rate Arrangement**:

The Hungarian forint is freely floating, effective February 26, 2008.

VIII. **Article IV Consultations**:

Hungary is on a 12-month consultation cycle. The last Article IV Board discussion took place on July 18, 2007. The associated Executive Board assessment is available at http://www.imf.org/external/np/sec/pn/2007/pn0787.htm and the staff report and other mission documents at http://www.imf.org/external/pubs/cat/longres.cfm?sk=21211.0 and http://www.imf.org/external/pubs/cat/longres.cfm?sk=21212.0. Hungary has accepted the obligations of Article VIII and maintains an exchange rate system free of restrictions on the making of payments and transfers on current international transactions except for those

maintained solely for the preservation of national or international security and that have been notified to the Fund pursuant to Executive Board Decision No. 144-(52/51).

IX. **Technical Assistance:**

Year	**Department**.	**Purpose**	**Date**
1995	FAD	Tax administration	February
1995	FAD	Treasury	February
1995	FAD	Treasury	May
1995	FAD	Treasury	November
1995	FAD	Debt management	November
1995	MAE	Central bank internal auditing	November
1995	MAE	Monetary analysis and research	December
1996	FAD	Tax policy	May
1996	MAE	Central bank accounts	September
1996	FAD	Subsidies	November
1997	FAD	Subsidies follow-up	May
2000	MAE	FSAP	February
2000	FAD	Tax legislation	June
2000	STA	Money and banking statistics	October
2000	FAD	Tax legislation follow-up	November
2002	FAD	Expenditure rationalization	November
2004	STA	ROSC update of the fiscal sector	January
2005	MFD	FSAP update	February
2005	FAD	Tax policy and administration	October
2006	FAD	Fiscal ROSC	May
2006	FAD	Public-private partnership	September
2007	FAD	Tax policy	April
2007	FAD	Public financial management	June
2007	FAD	Tax administration	October
2008	FAD	Pension reform	May

X. **Regional Resident Representative for Central And Eastern Europe:**

Mr. Christoph Rosenberg, Senior Regional Resident Representative for central and eastern Europe, took up his duties in Warsaw in February 2005.

APPENDIX II. HUNGARY—STATISTICAL ISSUES

1. Data provision is adequate for surveillance. Significant progress has been made in improving the coverage, periodicity, and other aspects of quality of the economic and financial statistics. Most data quality issues noted in the data module of the 2001 Report on the Observance of Standards and Codes (ROSC) have been satisfactorily addressed, but some are pending.[5]

2. Hungary subscribes to the Special Data Dissemination Standard (SDDS), and its metadata are posted on the Fund's Dissemination Standards Bulletin Board (http://dsbb.imf.org). Hungary meets the SDDS specifications for the coverage, periodicity, and timeliness of the data, and for the dissemination of advance release calendars.

A. Real Sector Statistics

3. To implement Eurostat regulations, the Hungarian Central Statistical Office (HCSO) started to use chain-linked volume measures of GDP from the third quarter of 2006 and made corresponding backward calculations to the year 2001. Quarterly GDP is estimated using the production and expenditure approach. A first preliminary estimate of GDP volume indices is released 45 days after the reference period. Detailed estimates are released 70 days after the end of the reference period. Prior to the introduction of chain-linked estimates, GDP volume indices based on the production approach were compiled at constant prices of 2000. Since the third quarter of 2006, the HCSO has also been compiling current price estimations. In addition, as of September 2006, the HCSO introduced direct output volume measurement for some government services (education and healthcare). Furthermore, the HCSO refined its method to indirectly measure financial intermediation services by introducing two separate reference rates for transactions in local and in foreign currencies. Also, the HCSO started to include illegal activities into the national accounts.

4. The consumer price index (CPI) is compiled as an annual chained Laspeyres index using for weights the expenditure patterns of two years prior to the current period. The computation of imputed rent for owner-occupied housing is based on the average price changes of different repair items and does not cover all elements of costs to the user.

B. External Sector Statistics

5. In 2005, the Magyar Nemzeti Bank (MNB) launched a project to set up a new data collection system for balance of payments (BOP) and international investment position (IIP)

[5] The original 2001 ROSC Data Module and updates are available on the IMF internet web site. The latest update is *Hungary: Report on the Observance of Standards and Codes—Data Module, 2004 Update* (July 2004).

statistics, with a view to replace the international transaction reporting system (ITRS) with direct reporting (DR) of respondents. This change in data collection system became effective in January 2008. The move from ITRS to DR is in line with the recent trends concerning BOP data collection systems in other EU Member States. Under the new system, resident economic entities report directly their transactions and positions vis-à-vis nonresident entities.

6. The extent of cooperation between the HCSO and the MNB in the production of external statistics—the "Rest of the World" in the National Accounts framework on the one hand, and the BOP and IIP on the other hand—has also been significantly enhanced. In addition to data sharing already existing—data on trade in goods (since 2003), on FDI (since 2004), on travel and business services (since 2005), and on other services such as transportation, insurance, financial and government services (since 2006) —cooperation has been extended to new areas of non-financial accounts (such as compensation of employees and EU transfers). Nevertheless, the full responsibility for the compilation and publication of BOP and IIP statistics still rests with the MNB.

7. Furthermore, the MNB changed the reporting of stock and flow data of special-purpose entities (SPEs) as of January 1, 2006. According to the international statistical standards, an offshore firm is resident of the country in which it is registered. The off-shore status of SPEs ceased to exist on December 31, 2005, and from January 2006, the MNB has been compiling the BOP including data on SPEs. Nevertheless, the MNB continues to treat the statistics that exclude the flow and stock data of SPEs as readily interpretable in economic terms. In defining the range of SPEs, the MNB cooperates with the HCSO.

8. The HCSO, the MNB and the Ministry of Finance are presently looking into addressing the high level of errors and omissions in the BOP. Within the General Framework of Cooperation between the HCSO and the MNB, effective since 2002, a joint task force was established in the 2007 annual work program to investigate possible flaws in the Foreign Trade Statistics (FTS) data. Issues under investigation include:

- the possibly wrong attribution in FTS of Hungarian residence to foreign, nonresident companies importing and exporting goods to/from Hungary with a Hungarian VAT number; and
- possible VAT fraud (so-called "carousel fraud"), which has also led to underestimation of goods imports in other EU countries (e.g., the UK).

9. With regard to the "VAT resident issue," the task force has explored its possible impact on trade in goods data according to the National Accounts and BOP concept versus the FTS concept. The final conclusion and decision of the interested parties in February 2008 was to address this issue by revising the trade data back to 2004 in both NA and BOP statistics in a concerted way in September 2008. In implementing this, the Eurostat's relevant future recommendations, if any, will be respected.

10. As for the second (VAT fraud) issue, HCSO and MNB first have to agree on a proposal to redesign the information system of tax and customs authorities to facilitate better provision of necessary details on explored frauds that can be used to compile the NA and BOP statistics. This task has been put on the agenda in the HCSO-MNB 2008 work program.

C. Monetary and Financial Statistics

11. Starting with the release of data for January 2003, the MNB has been compiling and publishing data based on a new methodology consistent with the European Central Bank's framework for monetary statistics using the national residency approach. In addition to the central bank and credit institutions, monetary statistics now also cover money market funds.

12. The Hungarian authorities have reported that they have addressed all recommendations in the area of monetary and financial statistics made in the context of the 2001 data ROSC report. Following Statistics Department (STA) recommendation that securities on the balance sheets of depository corporations be valued at market prices, the authorities have pursued improvement. From 2004, depository corporations were encouraged to use market valuation for securities in their trading portfolio. From 2005, this requirement was made compulsory for those depository corporations that are listed on the stock exchange.

D. Government Finance Statistics (GFS)

13. In January 2004, STA conducted a substantive update of the GFS dataset using the July 2003 Data Quality Assessment Framework. The mission reported that, overall, significant progress has been made in addressing the shortcomings of budget execution data and GFS identified in the 2001 ROSC Data Module. These improvements relate mainly to institutional coverage of general government, consolidation of data and reconciliation of deficit and financing. However, plans to report monthly expenditures classified on an economic basis have yet to come to fruition.

14. The latest data reported for publication in the 2007 GFS Yearbook are for 2006. These data now cover the operations of the consolidated central government and consolidated general government sectors, as well as their corresponding subsectors. The data for 2000 onwards have been compiled on an accrual basis and reported in the Government Finance Statistics Manual 2001 format.

Hungary: Table of Common Indicators Required for Surveillance
AS OF JULY 11, 2008

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of publication[7]	Memo Items:	
						Data Quality – Methodological soundness[8]	Data Quality Accuracy and reliability[9]
Exchange Rates	6/25/2008	6/25/2008	D and M	D and M	D and M		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	May 2008	6/6/2008	M	M	M		
Reserve/Base Money	May 2008	6/12/2008	M	M	M	O,O,LO,LO	O,O,O,O,LO
Broad Money	May 2008	6/12/2008	M	M	M		
Central Bank Balance Sheet	May 2008	6/12/2008	M	M	M		
Consolidated Balance Sheet of the Banking System	May 2008	6/30/2008	M	M	M		
Interest Rates[2]	May 2008	6/5/2008	M	M	M		
Consumer Price Index	Apr 2008	5/14/2008	M	M	M	O,O,O,O	O,O,O,O,NA
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2007	4/1/2008	A	A	A	O,LNO,LO,O	LO,O,O,O,NA
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	Mar 2008	5/20/2007	M	M	M		
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Q4 2007	4/1/2008	Q	Q	Q		
External Current Account Balance	Q4 2007	3/31/2008	Q	Q	Q	O,LO,LO,LO	O,O,O,O,NA
Exports and Imports of Goods and Services	Q4 2007	3/31/2008	Q	Q	Q		
GDP/GNP	Q4 2007	3/7/2008	Q	Q	Q	O,O,O,LO	O,LO,O,O,NA
Gross External Debt	Q4 2007	3/31/2008	Q	Q	Q		
International investment Position[6]	Q4 2007	7/11/2008					

[1]Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).
[8] Reflects the assessment provided in the data ROSC and Substantive Update published in May 2001 and July 2004, respectively, and based on the findings of the respective missions that took place during January 2001 and January 2004 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning (respectively) concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), or not observed (NO).
[9] Same as footnote 8, except referring to international standards concerning (respectively) source data, statistical techniques, assessment and validation of source data, assessment and validation of intermediate data and statistical outputs, and revision studies.

Hungary: External Debt Sustainability Framework, 2003-13
(In percent of GDP, unless otherwise indicated)

	Actual					Projections						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**Debt-stabilizing non-interest current account 6/**
Baseline: External debt	61.6	67.0	75.0	90.5	96.4	**94.2**	**93.3**	**93.4**	**93.5**	**93.7**	**94.0**	**-4.0**
Change in external debt	7.1	5.4	8.0	15.5	5.9	-2.2	-0.9	0.2	0.1	0.3	0.3	
Identified external debt-creating flows (4+8+9)	2.6	-2.6	-4.4	-0.6	-6.1	-1.7	-1.3	-0.9	-0.7	0.0	0.3	
Current account deficit, excluding interest payments	5.7	5.8	3.8	2.9	1.3	0.9	1.3	1.7	1.9	2.1	2.3	
Deficit in balance of goods and services	3.8	2.7	0.5	-0.4	-2.5	-2.6	-1.9	-1.2	-0.8	-0.4	0.0	
Exports	61.5	65.0	67.8	77.6	80.0	84.9	89.4	92.1	96.6	100.5	105.1	
Imports	65.3	67.7	68.3	77.2	77.4	82.4	87.5	90.9	95.8	100.1	105.1	
Net non-debt creating capital inflows (negative)	-1.9	-5.4	-6.6	-4.3	-0.5	-4.7	-4.2	-3.5	-3.3	-3.3	-3.2	
Automatic debt dynamics 1/	-1.3	-3.0	-1.7	0.8	-7.0	2.2	1.6	1.0	0.7	1.2	1.3	
Contribution from nominal interest rate	2.3	2.6	2.9	3.2	3.6	4.0	4.1	4.2	4.2	4.2	4.2	
Contribution from real GDP growth	-2.2	-2.7	-2.5	-2.9	-1.0	-1.8	-2.5	-3.2	-3.5	-3.0	-3.0	
Contribution from price and exchange rate changes 2/	-1.4	-2.9	-2.1	0.5	-9.5	...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/	4.5	8.0	12.4	16.1	12.1	-0.6	0.4	1.0	0.8	0.3	0.0	
External debt-to-exports ratio (in percent)	100.1	103.1	110.6	116.6	120.6	110.9	104.3	101.4	96.8	93.3	89.4	
Gross external financing need (in billions of euros) 4/	19.1	25.7	27.8	30.6	29.5	37.8	44.4	43.2	47.0	46.7	49.4	
in percent of GDP	25.6	31.2	31.2	34.0	29.2	35.0	39.0	35.9	36.9	34.8	35.0	
Scenario with key variables at their historical averages 5/						**94.2**	**92.1**	**89.9**	**87.6**	**84.8**	**81.8**	**-8.4**
Key Macroeconomic Assumptions Underlying Baseline												
Real GDP growth (in percent)	4.2	4.8	4.1	3.9	1.3	2.0	2.8	3.6	4.0	3.4	3.4	
GDP deflator in euros (change in percent)	1.4	5.1	3.7	-2.5	13.5	4.7	2.6	1.9	1.9	1.9	1.8	
Nominal external interest rate (in percent)	4.4	4.7	4.7	4.3	4.5	4.4	4.6	4.7	4.8	4.8	4.8	
Growth of exports (euro terms, in percent)	3.3	16.3	12.6	16.0	15.7	13.4	11.0	8.7	11.1	9.5	10.1	
Growth of imports (euro terms, in percent)	5.9	14.1	8.9	14.6	12.6	13.6	12.1	9.6	11.7	10.0	10.5	
Current account balance, excluding interest payments	-5.7	-5.8	-3.8	-2.9	-1.3	-0.9	-1.3	-1.7	-1.9	-2.1	-2.3	
Net non-debt creating capital inflows	1.9	5.4	6.6	4.3	0.5	4.7	4.2	3.5	3.3	3.3	3.2	

1/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ times previous period debt stock, with r = nominal effective interest rate on external debt; ρ = change in domestic GDP deflator in euro terms, g = real GDP growth rate, ε = nominal appreciation (increase in dollar value of domestic currency), and α = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as $[-\rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ times previous period debt stock. ρ increases with an appreciating domestic currency ($\varepsilon > 0$) and rising inflation (based on GDP deflator).

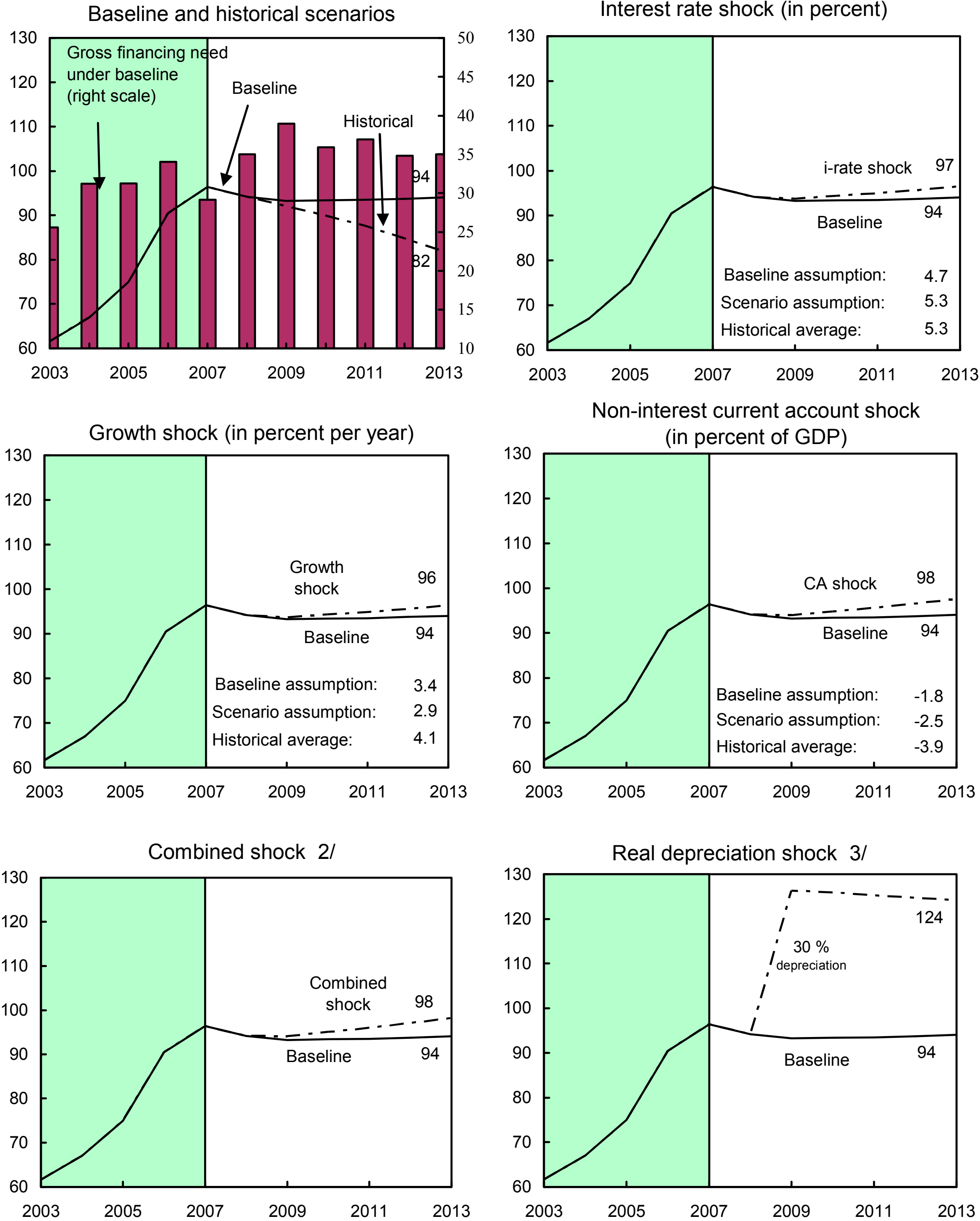
3/ For projection, line includes the impact of price and exchange rate changes.

4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Hungary: External Debt Sustainability: Bound Tests 1/
(External debt in percent of GDP)



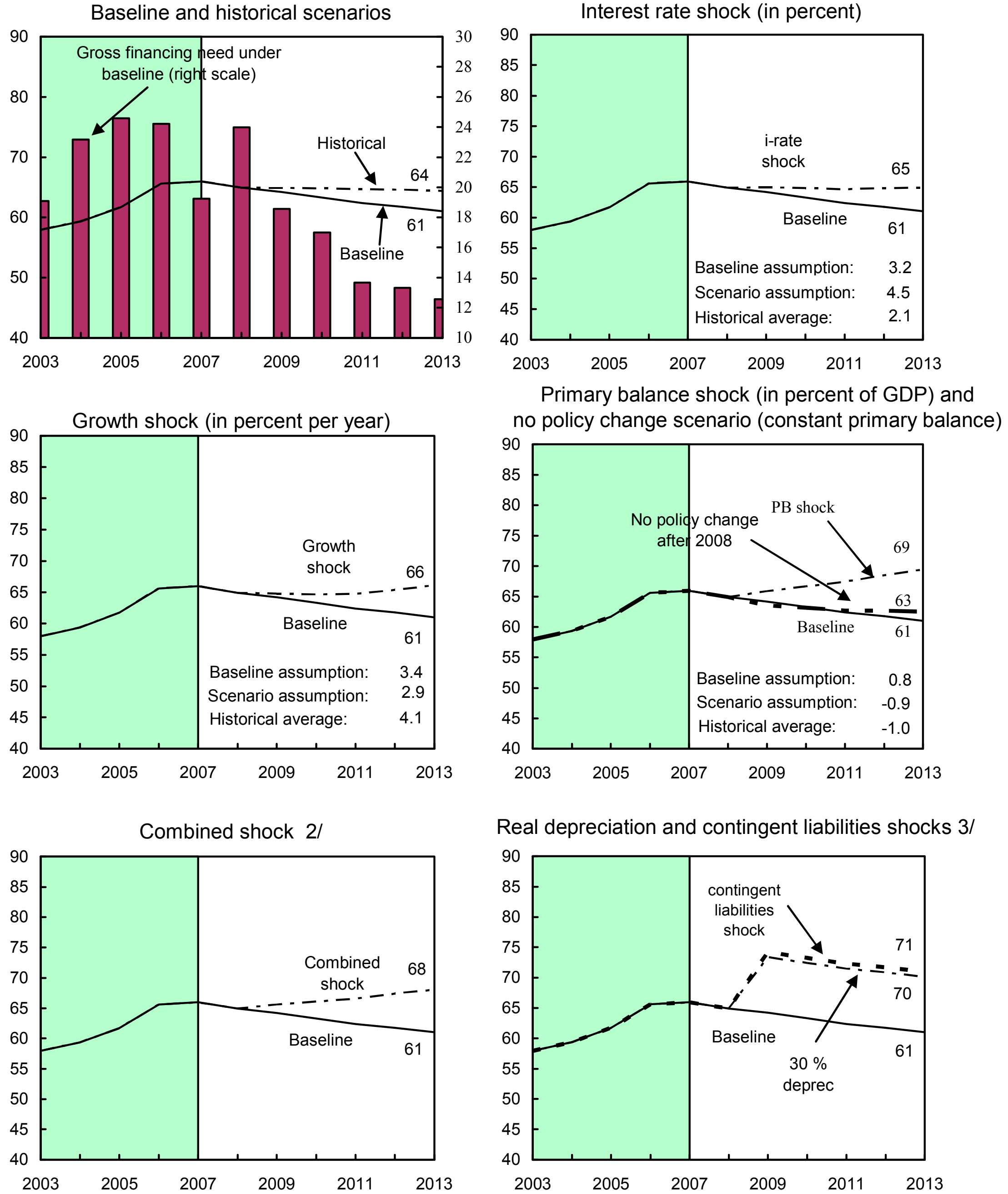
Sources: International Monetary Fund, Country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
3/ One-time real depreciation of 30 percent occurs in 2009.

Hungary: Public Sector Debt Sustainability Framework, 2003-13
(In percent of GDP, unless otherwise indicated)

	Actual					Projections						
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**Debt-stabilizing primary balance 10/**
Baseline: Public sector debt 1/	58.0	59.4	61.7	65.6	66.0	**64.9**	**64.2**	**63.3**	**62.4**	**61.8**	**61.0**	**0.2**
o/w foreign-currency denominated	14.1	15.3	17.4	18.5	18.6	18.3	18.1	17.8	17.6	17.4	17.2	
Change in public sector debt	2.4	1.4	2.3	3.9	0.4	-1.0	-0.7	-0.9	-0.9	-0.6	-0.8	
Identified debt-creating flows (4+7+12)	0.8	-1.2	5.1	1.7	-2.0	-1.3	-1.0	-1.1	-1.1	-0.8	-0.8	
Primary deficit	3.1	2.0	3.7	5.3	1.4	-0.3	-0.8	-0.7	-0.7	-0.8	-0.9	
Revenue and grants	41.9	42.6	42.2	42.6	44.6	44.7	44.2	44.2	44.2	44.2	44.2	
Primary (noninterest) expenditure	45.0	44.5	45.9	47.9	46.0	44.4	43.3	43.5	43.4	43.4	43.3	
Automatic debt dynamics 2/	-2.1	-2.4	3.3	-2.3	-3.4	-1.0	-0.2	-0.4	-0.3	0.0	0.1	
Contribution from interest rate/growth differential 3/	-1.1	-0.6	0.5	-0.6	-1.6	-1.0	-0.2	-0.4	-0.3	0.0	0.1	
Of which contribution from real interest rate	1.0	2.0	2.8	1.6	-0.8	0.2	1.5	1.7	2.0	2.0	2.0	
Of which contribution from real GDP growth	-2.1	-2.6	-2.3	-2.2	-0.8	-1.2	-1.7	-2.2	-2.4	-2.0	-1.9	
Contribution from exchange rate depreciation 4/	-1.0	-1.8	2.8	-1.7	-1.8	...	...	...	...	...	...	
Other identified debt-creating flows	-0.2	-0.8	-1.9	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization receipts (negative)	-0.2	-0.8	-1.9	-1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes (2-3) 5/	1.6	2.6	-2.8	2.2	2.3	0.3	0.3	0.2	0.2	0.2	0.1	
Public sector debt-to-revenue ratio 1/	138.3	139.5	146.2	153.8	147.9	145.1	145.4	143.3	141.3	139.9	138.2	
Gross financing need 6/	19.1	23.2	24.6	24.2	19.2	24.0	18.6	17.0	13.7	13.3	12.6	
in billions of U.S. dollars	16.1	23.7	27.2	27.4	26.6	39.9	32.9	31.9	27.3	28.2	28.1	
Scenario with key variables at their historical averages 7/						**64.9**	**64.9**	**64.8**	**64.7**	**64.6**	**64.4**	**-1.2**
Scenario with no policy change (constant primary balance) in 2008-2013						**64.9**	**63.6**	**63.1**	**62.7**	**62.6**	**62.5**	**0.2**
Key Macroeconomic and Fiscal Assumptions Underlying Baseline												
Real GDP growth (in percent)	4.2	4.8	4.1	3.9	1.3	2.0	2.8	3.6	4.0	3.4	3.4	
Average nominal interest rate on public debt (in percent) 9/	8.1	8.3	7.3	6.9	6.7	6.8	6.9	6.5	6.5	6.5	6.5	
Average real interest rate (nominal rate minus change in GDP deflator, in percent)	2.3	3.9	5.1	3.0	-1.3	0.5	2.7	3.0	3.5	3.5	3.5	
Nominal appreciation (increase in US dollar value of local currency, in percent)	8.3	15.3	-15.6	11.5	11.0	...	...	...	...	...	...	
Inflation rate (GDP deflator, in percent)	5.8	4.4	2.2	3.9	7.9	6.3	4.2	3.5	3.0	3.0	3.0	
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.7	3.7	7.3	8.4	-5.0	-1.4	0.2	3.9	3.9	3.3	3.1	
Primary deficit	3.1	2.0	3.7	5.3	1.4	-0.3	-0.8	-0.7	-0.7	-0.8	-0.9	

1/ General government gross debt.
2/ Derived as $[(r - \pi(1+g) - g + \alpha\varepsilon(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; α = share of foreign-currency denominated debt; and ε = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).
3/ The real interest rate contribution is derived from the denominator in footnote 2/ as $r - \pi(1+g)$ and the real growth contribution as -g.
4/ The exchange rate contribution is derived from the numerator in footnote 2/ as $\alpha\varepsilon(1+r)$.
5/ For projections, this line includes exchange rate changes.
6/ Defined as public sector deficit, plus amortization of medium and long-term public sector debt, plus short-term debt at end of previous period.
7/ The key variables include real GDP growth; real interest rate; and primary balance in percent of GDP.
8/ The scenario assumes structural balances of -2.5 percent of GDP in 2009, -1.5 in 2010, and -0.5 over 2011-13.
9/ Derived as nominal interest expenditure divided by previous period debt stock.
10/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Hungary: Public Debt Sustainability: Bound Tests 1/
(Public debt in percent of GDP)



Sources: International Monetary Fund, country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and primary balance.
3/ One-time real depreciation of 30 percent and 10 percent of GDP shock to contingent liabilities occur in 2009, with real depreciation defined as nominal depreciation (measured by percentage fall in dollar value of local currency) minus domestic inflation (based on GDP deflator).

INTERNATIONAL MONETARY FUND

HUNGARY

Staff Report for the 2008 Article IV Consultation
Supplementary Information

Prepared by the European Department

Approved by Ajai Chopra and Adnan Mazarei

September 10, 2008

1. This supplement reports on key economic developments since the staff report was finalized on July 29, 2008. The new information does not alter the thrust of the staff appraisal.

2. **The government has proposed a package of tax measures, which—if enacted—would likely increase the fiscal deficit** (see text table). While the reduction in the tax burden—especially the lowering of taxes on labor—would be welcome, the lack of specific offsets on the expenditure side is inconsistent with staff advice, as it could increase the fiscal deficit by up to ½ percentage point of GDP. Thus, if the tax package is enacted, it could take away the fiscal consolidation originally envisaged for 2009 that staff see as necessary to reduce vulnerabilities. Prospects for enactment are uncertain, however, because the government does not have a majority in parliament.

Hungary: Impact of Proposed Tax Package on Fiscal Balance, 2009
(In percent of GDP)

Revenue losses	**0.9**	**Revenue increases and spending cuts**	**0.9**
Social security contributions	0.5	Taxes on fringe benefits	0.2
Personal income tax	0.3	Excise taxes	0.1
Corporate income tax (net)	0.1	Contributions to rehabilitation fund	0.1
		Unspecified expenditure cuts	0.5

Source: Hungarian Ministry of Finance.

3. **Otherwise, economic developments have been largely as anticipated in the staff report**. GDP growth accelerated from 1 percent year-on-year in 2008Q1 to 2 percent year-on-year in 2008Q2, reflecting primarily an increase in private consumption growth. With both employment and labor force participation falling, the unemployment rate has been broadly stable. CPI inflation in July was unchanged at 6¾ percent, and private sector wage growth (excluding bonuses) in June was 9 percent, the same as in April. The central bank left the

policy interest rate unchanged in August. Also, the government and the central bank agreed to keep the inflation target at 3 percent (with a +/- 1 percent tolerance band) for the next three years (or until ERM2 entry).

INTERNATIONAL MONETARY FUND

Public Information Notice

EXTERNAL RELATIONS DEPARTMENT

Public Information Notice (PIN) No. 08/124
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September 24, 2008

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2008 Article IV Consultation with Hungary

On September 17, 2008, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Hungary.[1]

Background

The current account deficit narrowed in 2007, but the net external liability position is still very large. Reflecting mainly the impact of fiscal consolidation on domestic demand, real GDP growth slowed to 1¼ percent in 2007 and the current account deficit narrowed to 5 percent of GDP. Although external financing needs declined, the composition of financing remained largely debt-creating and net external liabilities amounted to about 100 percent of GDP. Despite the economic slowdown, private sector credit growth remained robust, raising debt burdens. With most new borrowing in foreign currency, the private sector's net foreign currency liabilities increased.

Fiscal adjustment in 2007 was substantial, but the budget deficit and government debt are still high. The general government deficit narrowed from 9¼ percent of GDP in 2006 to 5½ percent of GDP in 2007, reflecting a broadly balanced mix of higher revenue—partly due to improved tax administration—and lower expenditure. However, even with the sharp decline in the fiscal deficit, government debt only stabilized at 66 percent of GDP. With substantial amortization due

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities.

in 2008–09, gross financing needs are high. Indicative expenditure ceilings were introduced with the 2008 budget.

The exchange rate band was removed in early 2008, moving Hungary to a floating exchange rate regime. Monetary policy is now able to focus exclusively on the inflation target of 3 percent over two years. In response to higher inflationary pressures, the policy interest rate was raised over the past half year. Higher global prices of food and energy have prevented a decline in CPI inflation, which was 7 percent in May 2008. At the same time, underlying inflationary pressures, including core inflation and wage growth, have risen.

Financial system risks have increased over the past year, reflecting both the global financial market turbulence and continued rapid credit growth. The banking system is well-capitalized and profitable, though these indicators deteriorated in 2007. The authorities are taking measures to address risks, including further development of stress testing, publication of guidelines on foreign currency risk exposures, publication of criteria for Pillar II assessments, review of banks' liquidity management practices, and testing of financial safety nets. The authorities also aim to improve liquidity in the government bond market.

Executive Board Assessment

Executive Directors commended Hungary's substantial fiscal consolidation since mid-2006 and the associated narrowing of the current account deficit. Monetary policy has been appropriately tightened, and the elimination of the exchange rate band has removed a potential conflict between monetary policy objectives. Directors also welcomed the authorities' publication of guidelines on banks' risk management and consumer protection related to foreign currency loans.

Directors noted that risks to external stability would remain high in the period ahead. In particular, they raised concerns about the high level of government debt, the large net external liability position, and financial system risks, especially in light of unsettled global financial market conditions. Pressures on the current account deficit could intensify from 2009 if economic growth picks up as expected because of strengthening domestic demand, and if real exchange rate appreciation continues. Directors noted the assessment that the real effective exchange rate is somewhat above the value implied by fundamentals, while pointing to the uncertainties surrounding this assessment and observing that Hungary does not appear to have suffered a loss of external competitiveness. They believed that the strength of the currency may reflect in part appropriately tight monetary policy. Directors noted that Hungary's gross external financing needs in 2008–09 are high, though short-term debt is roughly covered by net international reserves.

Directors considered that the key policy priority for the authorities is to continue to reduce vulnerabilities. This will involve sustained further efforts to put the government debt-to-GDP ratio firmly on a downward path, preserve domestic stability and confidence in the currency, and strengthen the resilience of the financial sector. Continued improvements in the business

environment will help to preserve Hungary's external competitiveness and attractiveness for foreign direct investment.

Directors welcomed the fiscal tightening under way in 2008 and urged further fiscal consolidation in 2009 in line with the Convergence Program. They observed that expenditure restraint and buoyant revenue made the fiscal deficit target for 2008 attainable, and supported the authorities' intention to use any revenue overperformance for public debt reduction. To achieve further consolidation in 2009, continued strict spending restraint is needed. Tax cuts should be avoided unless they are offset by specific spending cuts. Given the uncertainties in the economic outlook, it would be helpful for the 2009 budget to include sizable contingency reserves. Directors supported the planned introduction of a rules-based fiscal framework; if underpinned by credible policies, this would signal the authorities' commitment to fiscal discipline and help deliver the needed consolidation. Directors suggested reducing the size of government, and the corresponding tax burden, through further reform of pension, health, and education expenditures. They also favored improving work incentives and increasing employment by shifting the tax burden away from labor and toward consumption and by broadening the tax base.

Directors recommended that monetary policy aim to reduce inflation to the 3 percent target over two years. They noted that, in the new floating exchange rate regime, monetary policy is able to focus exclusively on the inflation target. Given the rise in inflationary pressures in the first half of 2008, Directors considered that the tightening of monetary policy had been appropriate. Looking forward, they observed that the policy interest rate would need to respond to the effects of exchange rate developments and the evolution of underlying inflationary pressures. They underscored that the central bank should be prepared to react quickly and forcefully to inflationary shocks.

Directors noted that while the banking system remains profitable and well-capitalized, financial soundness indicators have deteriorated recently. They urged further policy action to improve banks' risk management. Regarding credit risks, the priorities are to establish a credit registry for households and to strengthen stress testing, including of households' foreign currency exposures. It will also be important to ensure that banks remain adequately capitalized. Regarding liquidity risks, the priorities are to expedite the review of banks' liquidity management practices, develop liquidity management guidelines, and ensure that banks have effective contingency arrangements in place. In addition, Directors recommended that the review of financial safety nets be accelerated. They also called for enhanced collaboration with foreign supervisory authorities given Hungarian banks' close links with financial institutions abroad.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The staff report (use the free Adobe Acrobat Reader to view this pdf file) for the 2008 Article IV Consultation with Hungary is also available.

Hungary: Main Economic Indicators, 2004–08

	2004	2005	2006	2007	2008 Proj.
Real economy (change in percent)					
Real GDP	4.8	4.1	3.9	1.3	2.0
CPI (end year)	5.5	3.3	6.5	7.4	5.5
CPI (average)	6.8	3.6	3.9	7.9	6.3
Unemployment rate (average, in percent)	6.1	7.2	7.5	7.4	7.8
Gross domestic investment (percent of GDP) 1/	25.9	23.6	23.1	23.0	23.8
Gross national saving (percent of GDP, from BOP)	17.5	16.8	17.0	18.0	19.0
General government (percent of GDP), ESA-95 basis 2/					
Overall balance	-6.4	-7.8	-9.2	-5.5	-3.8
Primary balance	-2.3	-3.9	-5.5	-1.7	0.2
Debt	59.4	61.7	65.6	66.0	64.9
Money and credit (end-of-period, percent change)					
M3	11.6	14.6	13.7	11.1	…
Credit to nongovernment	19.2	18.9	17.1	17.3	...
Interest rates (percent)					
T-bill (90-day, average)	11.1	6.8	7.0	7.6	...
Government bond yield (5-year, average)	9.7	8.0	6.9	7.0	...
Balance of payments					
Goods and services trade balance (percent of GDP)	-2.7	-0.5	0.4	2.5	2.6
Current account (percent of GDP)	-8.4	-6.8	-6.1	-5.0	-4.8
Reserves (in billions of US dollars)	16.0	18.6	21.6	24.0	26.4
Gross external debt (percent of GDP) 3/	67.0	75.0	90.5	96.4	94.2
Net international investment position (in percent of GDP)	83.5	92.4	100.9	100.5	99.5
Exchange rate					
Exchange regime			Floating		
Present rate (September 17, 2008)			Ft 169.9 = US$1		
Nominal effective rate (2000=100)	110.7	111.6	105.1	111.8	...
Real effective rate, CPI basis (2000=100)	130.0	132.6	127.0	142.5	...

Sources: Hungarian authorities; IMF, International Financial Statistics; Bloomberg; and IMF staff estimates.
1/ Includes change in inventories.
2/ Consists of the central budget, social security funds, extrabudgetary funds, and local governments, as well as motorway investments previously expected to be recorded off-budget in 2006-07.
3/ Including inter-company loans, and nonresident holdings of forint-denominated assets.