

**FOR
AGENDA**

EBS/11/75
Correction 1

June 7, 2011

To: Members of the Executive Board
From: The Acting Secretary
Subject: **Hungary—First Post-Program Monitoring Discussions**

The attached corrections to EBS/11/75 (5/23/11) have been provided by the staff:

Mischaracterization of the Views of the Authorities

Page 10, text table, Health Care, line 10: for "...reduction in several subsidies" read "...review of several subsidies"

Factual Errors Not Affecting the Presentation of Staff's Analysis or Views

Page 1, para. 1, line 6: for "...of the defined-benefit private pension pillar..." read "...of the defined-contribution private pension pillar..."

Page 5, para. 4, line 2: for "...deficit of 4.2 percent of GDP (accrual terms) exceeded its target by 0.4 percentage points..." read "...deficit of 4.3 percent of GDP (ESA terms) exceeded its target by ½ percentage point..."

Page 9, para. 9, line 21: for "...for past returns to the 97 percent of contributors..." read "...for past voluntary contributions and real returns to the 97 percent of contributors..."

Page 16, para. 19, line 2: for "The authorities saw less urgency than staff in addressing overstaffing in public administration and state-owned enterprises, a key area of expenditure rationalization identified by last year's TA mission." read "The authorities saw less urgency than staff in addressing overstaffing in public administration (a key area of expenditure rationalization identified by last year's TA mission), as well as state-owned enterprises."

para. 21, line 3: for "...drastic actions, especially under present circumstances in which two of three members were appointed by the government" read "...drastic actions."

Page 17, para. 25, line 2: for "...financial supervision" read "...financial stability"

Evident Ambiguity

Page 5, para. 6, line 3: for "...to 1¼ percent in 2010, with..." read "...to 1¼ percent in 2010 on a consolidated basis, with..."

Page 8, Box Figure, Panel 3, subtitle: for "(in percent of GDP)" read "(on balance sheet, in percent of GDP)"

Page 12, para. 12, line 4: for "...risk premium. Inflation pressures..." read "... risk premium. Medium-term inflation pressures..."

Page 16, para. 20, line 8: for "...envisages continued unspecified fiscal adjustment..." read "...envisages continued fiscal adjustment..."

Page 17, para. 25, line 2: for "...but the framework for financial supervision has been weakened." read "...but reiterated its earlier concerns that the framework for financial stability had been weakened."
line 3: for "for "On-site inspections continue at a similar frequency and intensity as in the past two years." read "On-site inspections continue at a similar frequency and intensity for systemically important banks as in the past two years."

Page 19, Box 4, first panel, footnote: for "...as described in EBS/..." read "as described in EBS/.... Short-term debt includes staff's estimate of intercompany loans falling due within one year."

Typographical Errors

Page 10, first column, lines 1 and 6: for "0" read "3"

Pages 22, 24, 25, 26, 27, 28, 29, 30, 34, 35, and 36; Tables 1, 3, 4, 5, 6, 7, 8, 9, Appendix tables 1, 2, and Appendix figure 1: Updated

Questions may be referred to Mr. Rosenberg (ext. 34035) and Mr. Gottlieb (ext. 38087) in EUR.

This document, will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

Att: (20)

Other Distribution:
 Department Heads

INTERNATIONAL MONETARY FUND

HUNGARY

First Post-Program Monitoring Discussions

Prepared by the European Department in Consultation with Other Departments

Approved by Anne-Marie Gulde-Wolf and Lorenzo Giorgianni

May 20, 2011

EXECUTIVE SUMMARY

Context and past surveillance: A modest export-driven recovery is underway and financial market sentiment has recently improved. However, significant vulnerabilities remain, notably high public and external debt, a demanding sovereign amortization schedule, and large currency mismatches. During the Board meeting for the 2010 Article IV Consultation in January 2011, Directors expressed concern about the authorities' policy response to these challenges, which relied on large tax cuts financed by temporary fiscal measures including sectoral levies and the transfer of the defined-contribution private pension pillar to the state. They called for a comprehensive structural fiscal adjustment program to restore medium-term fiscal stability, as well as measures to normalize credit conditions, especially in the mortgage market.

Authorities' strategy: The authorities recently announced a structural reform program, the Szell Kalman Plan, which aims to restore fiscal sustainability and investor confidence. Cumulatively, the package targets 3 percent of GDP in fiscal consolidation in 2011–13, with the bulk of measures on the expenditure side (cuts in social benefits, pension eligibility, health care, education, and streamlining public administration). Additional measures, including a one-year extension of the bank levy, aim at keeping the deficit below 3 percent of GDP from 2012, as agreed with the EU. The government is also nearing completion on an agreement with banks to address ongoing stress in real estate portfolios. In view of lower inflation prospects and risks spreads, the main policy rate has been put on hold.

Staff's views: The broad direction of reforms outlined in the Szell Kalman Plan is appropriate. If taken at face value, it would help to restore debt sustainability and eventually support growth. But implementation risks loom large, suggesting that critical details should be spelled out and enacted quickly. To improve the durability of measures, staff recommended to focus more on reducing overstaffing in local governments and state-owned enterprises, means-testing social benefits (rather than across-the-board cuts), and quickly removing distortive sectoral levies. The government's attempt to find cooperative solutions with the banking sector is welcome, but support schemes for distressed mortgage holders should be transparent, targeted at social objectives, and minimize fiscal cost and moral hazard. Official reserve coverage could be increased to provide a safety cushion in view of large forthcoming external financing needs in the public and banking sectors.

Mission dates and team: April 4–11, 2011. Messrs. Rosenberg (head), Gottlieb, Wiegand, (all EUR), Guerson (FAD), Noah and Saenz (SPR), and Ms. Ivaschenko (Resident Representative) met with Prime Minister Orbán, Minister for National Economy Matolcsy, Central Bank Governor Simor, other government agencies and banks. Mr. Abel (OED) participated in some of the mission's discussions. The team worked closely with the EC's overlapping first post-program surveillance mission.

| Contents | Page |
|--|------|
| Executive Summary | 1 |
| I. Context..... | 3 |
| II. Setting..... | 3 |
| A. Recent Economic and Financial Developments..... | 3 |
| B. Policy Responses..... | 9 |
| III. Report on the Discussions..... | 14 |
| A. Macroeconomic Outlook and Risks..... | 14 |
| B. Policies | 14 |
| IV. Staff Appraisal | 20 |
| Figure | |
| 1. Recent Economic Developments, 2005–11 | 4 |
| Tables | |
| 1. Main Economic Indicators, 2007–12..... | 22 |
| 2. Central Bank Survey, 2006–12..... | 23 |
| 3. Monetary Survey, 2006–11..... | 24 |
| 4. Balance of Payments (Euros), 2005–16..... | 25 |
| 5. Balance of Payments (Percent of GDP), 2005–16..... | 26 |
| 6. External Financing Needs, 2009–16 | 27 |
| 7. Indicators of External Vulnerability, 2005–11 | 28 |
| 8. Staff’s Illustrative Medium-Term Scenarios, 2007–16 | 29 |
| 9. Consolidated General Government, 2007–12 | 30 |
| 10. Central Government Financing, 2010–16..... | 31 |
| 11. Financial Soundness Indicators for the Banking Sector, 2008–10 | 32 |
| 12. Indicators Fund Credit, 2008–16 | 33 |
| Boxes | |
| 1. Hungary's Crisis Vulnerabilities - Then and Now | 7 |
| 2. Local Government Finances | 11 |
| 3. Measures in the Scheme to Support Mortgage Debtors and an Efficient Functioning of the Mortgage Market | 13 |
| 4. Alternative Metrics of Reserve Coverage..... | 19 |
| Appendices Figures | |
| 1. Public Debt Sustainability: Bound Tests, | 35 |
| 2. External Debt Sustainability: Bound Tests..... | 37 |
| Appendices Tables | |
| 1. Public Sector Debt Sustainability Framework, 2006–16..... | 34 |
| 2. External Debt Sustainability: Framework, 2006–16..... | 36 |

4. **Meeting budgetary targets remains a challenge.** The 2010 general government deficit of 4.3 percent of GDP (ESA terms) exceeded its target by $\frac{1}{2}$ percentage point—mainly at the local government level—despite a series of ad hoc corrective measures late in the year. This slippage implied a primary structural weakening of $1\frac{3}{4}$ percent of GDP in 2010, undoing much of the adjustment achieved during the 2008–10 Stand-By Arrangement (see the forthcoming Ex-Post Evaluation report). Poor budget performance continued into the start of 2011 where the first quarter central government cash deficit has already exceeded the government’s initial annual target, largely because revenues fell short of optimistic expectations.

5. **The one bright spot has been the external sector, which continues to drive economic growth.** The current account improved from a 7.3 percent of GDP deficit in 2008 to a 2.1 percent of GDP surplus in 2010. Though part of the adjustment is due to the impact of the slump in domestic demand on imports, exports remain the key driver of adjustment, rising 14 percent in 2010 amid strong demand from Germany.² Exports strengthened further in early 2011 with February posting the largest trade surplus on record. Meanwhile, after the sharp outflows during the crisis, the capital and financial accounts have begun to normalize with rising portfolio investment compensating for continued deleveraging by parent banks. There has, however, also been a marked increase in negative errors and omissions to more than 2 percent of GDP in 2010, in line with similar developments elsewhere in the region.³ Gross international reserves are increasing, largely due to a pick-up in EU transfers and, more recently, successful sovereign debt placements of some €4 billion, which are deposited at the central bank (MNB).

6. **While the banking system has been resilient, a key short-term risk to credit quality remains the strength of the Swiss franc (CHF).** After-tax profit dropped from $9\frac{1}{4}$ percent in 2009 (return on equity) to $1\frac{1}{4}$ percent in 2010 on a consolidated basis, with the decline largely reflecting the introduction of the bank levy as well as further provisioning. Capital adequacy for the banking system as a whole improved marginally to 14.1 percent while non-performing loans again increased, reaching 9.1 percent, but at a slower pace than in previous periods. A key issue is that two-thirds of existing household loans are denominated in CHF which remains some 20–30 percent stronger against the forint than long-term averages. As a result, there are continuing concerns about households’ repayment and spending capacity as well as implications for banks’ balance sheets.

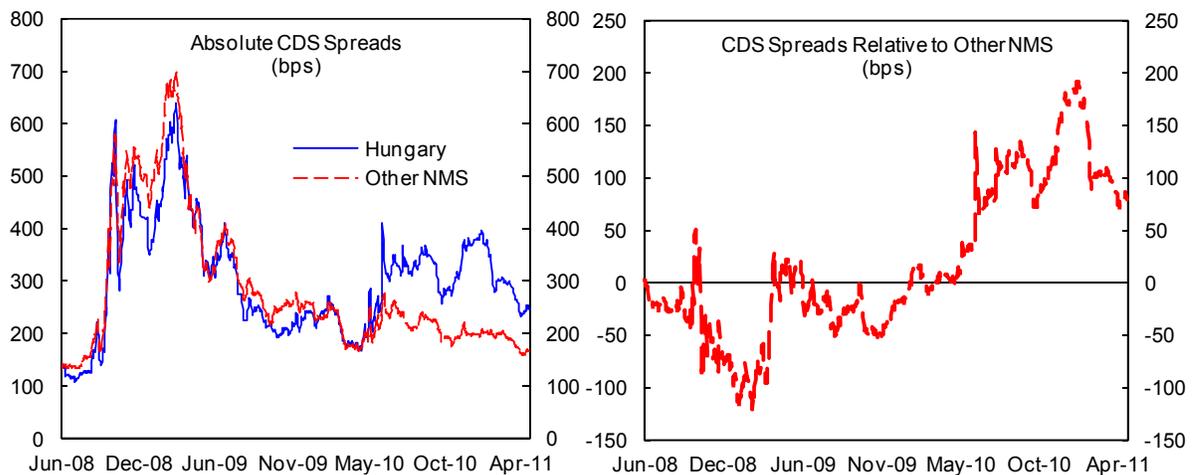
7. **Household and corporate lending remain subdued, further limiting banks’ earnings.** A mix of demand and supply factors continue to undermine credit growth

² The rise in manufactured goods prices largely offset the negative impact of higher energy prices on Hungary’s terms of trade.

³ The authorities attribute this increase in errors and omissions to misreporting of trade flows and difficulties to accurately record capital transfer between households.

including the weak economy, an uncertain business environment, and the ongoing ban on foreclosures. Amid such a weak environment for credit growth and earnings more broadly, banks have moved to further limit funding costs by selling forint assets (MNB bills), converting this liquidity into Foreign Exchange (FX) in the largely short term FX swap market, and repaying more expensive long-term foreign loans, both from parents and the wholesale market. As a result, the share of banks' on- and off-balance sheet foreign funding that is short term has risen.

8. **Despite the uncertain economic outlook, Hungarian asset prices have improved.** Since early 2011, risk spreads have tightened roughly 150bps in absolute terms (see Text Figure 1) as the anticipation of fiscal reforms coincided with a general increase in portfolio investors' appetite for assets in the region. CDS spreads have also dropped almost 100bps relative to new member state peers, but remain well above those posted before the change in government in April 2010. This persistent relative risk premium suggests lingering market concern about how the authorities will address outstanding vulnerabilities regarding public and external debt, official reserve coverage, and currency mismatches. In currency markets, the forint has strengthened since the mid-2010 sell-off. Nevertheless, CGER estimates still view the currency as broadly in line with fundamentals; in fact, when measured using unit labor costs, the real effective exchange rate is roughly 20 percent more competitive than before the crisis.



Source: Bloomberg.

Box 1. Hungary's Crisis Vulnerabilities—Then and Now

Hungary's economy is known for two key underlying vulnerabilities:

- First, Hungary has **high external debt** of 140 percent of GDP, largely held by banks and the government. Banks' foreign debt, at 36 percent of GDP, includes substantial borrowing from parents (two thirds of total). Meanwhile, the public sector has external debt of 53 percent of GDP, of which about 20 percent is non-residents holdings of local currency debt.
- Second, both households and banks have **substantial currency mismatches**. Household balance sheets are short foreign currency as they have borrowed heavily in Swiss francs to finance mortgages and consumption. By contrast, banks hold more FX assets than they generate in FX funding and are thus long foreign currency. While households have limited ability to hedge this exposure, banks cover almost 90 percent of their open position with off balance sheet FX swaps and other instruments.

Both vulnerabilities played key roles in the crisis:

- In late 2009, non-residents started a sharp sell-off in the local government bond market, which in turn triggered a large depreciation in the currency.
- Furthermore, the fall in foreigners' demand for Hungary exposure caused domestic banks without a parent to lose access to needed wholesale funding.
- Meanwhile, the forint weakness created strains in the FX swap market: suddenly, banks faced difficulty in rolling over their swaps and faced margin calls on their remaining swaps.
- As a result, the banking system as a whole faced dramatic pressure on liquid assets though banks with a parent were able to stabilize their liquidity by increasing borrowing abroad.

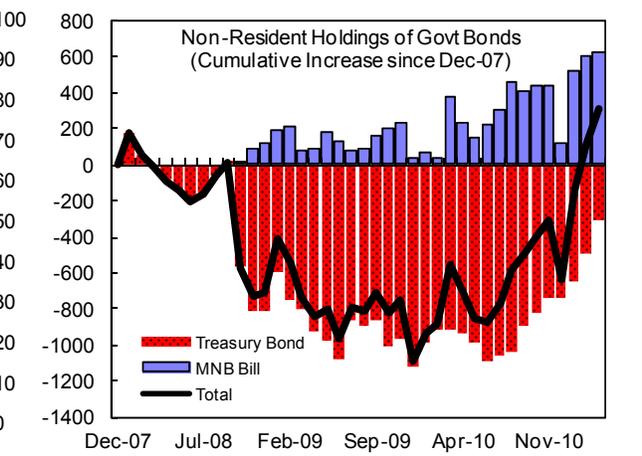
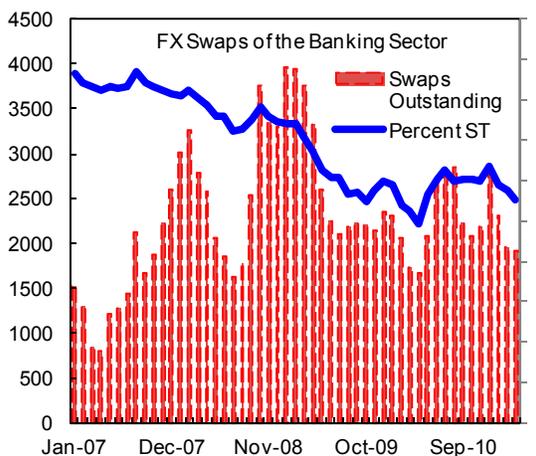
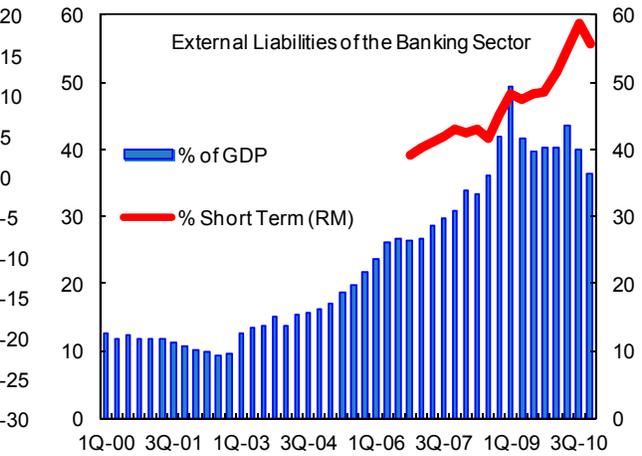
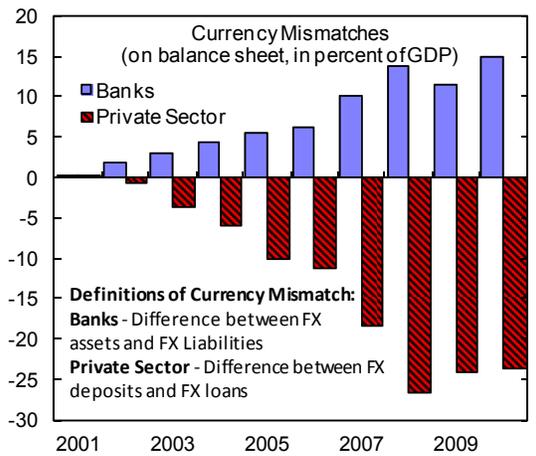
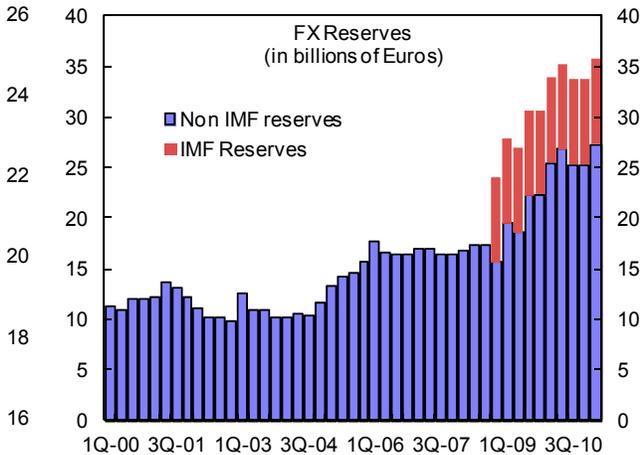
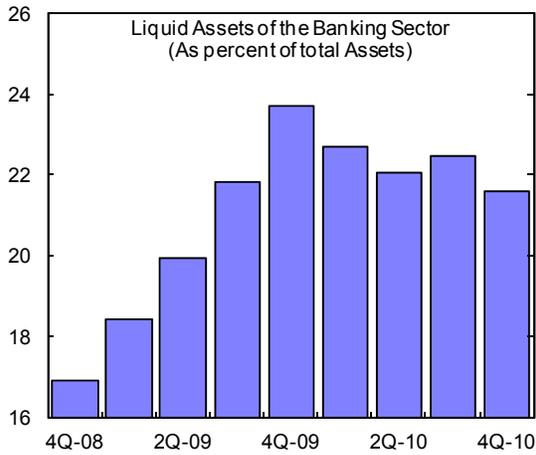
Two and a half-years later, Hungary is better placed to withstand similar shocks, including possible spillovers from problems in the European banking system. The MNB now has well-tested policy instruments to react to funding strains such as the FX swap facility. Furthermore, buffers are now much larger (see panel on subsequent page):

- Banks have vastly increased their holdings of liquid assets which fell sharply in late 2008. Admittedly, in recent quarters, liquid assets have started to moderate again (Chart 1).
- Furthermore, the FX reserves of the government are roughly double their pre-crisis levels, even if still modest by some metrics (Box 4) and due in part to outstanding liabilities to the IMF (Chart 2)

However, Hungary remains exposed to several underlying vulnerabilities:

- Despite the ban on new lending in FX, Hungary **still faces large currency mismatch** on stocks. Given the relatively long maturity of FX loans, this is unlikely to change quickly (Chart 3).
- While there has been some reduction in external liabilities in recent quarters, banks' **foreign borrowing remains large** and the share that is short term has been rising (Chart 4).
- While lower than during the crisis, banks' **dependence on the FX swap market remains somewhat above pre-crisis levels**. Also, the improvement in the swaps' maturity structure has stalled (Chart 5).
- Amid the recent increase in appetite for Hungary risk, **non-resident holdings of government paper (MNB bills and Treasury Bonds) are now back to pre-crisis levels** (Chart 6).

Box Figure. Hungary: Crisis Vulnerabilities, Then and Now



Sources: MNB; and IMF staff estimates.

B. Policy Responses

9. **The authorities have revised down their general government surplus target to 2 percent of GDP to accommodate a number of one-off expenses and weaker than initially expected revenue.** (Text Table 1) This year's budget continues to rely heavily on

one-off asset transfers from the recently dissolved second pension pillar (10 percent of GDP), as well as transitory levies on the financial, telecommunication, energy and retail sectors. With the resulting headline fiscal balance in surplus (in ESA terms), the authorities are undertaking a number

General Government Balances in 2011
(Percent of GDP, unless otherwise indicated)

| | Budget | Revised |
|---|--------|---------|
| General govt. balance excluding one-offs | -6.0 | -5.6 |
| One-off revenue | 12.0 | 11.1 |
| o.w. pension assets | 10.8 | 10.1 |
| o.w. sector levies | 1.1 | 0.8 |
| One-off expenditure | 0.2 | 3.1 |
| o.w. MAV and BKV debt consolidation | ... | 1.3 |
| o.w. cancellation of PPP projects | ... | 0.7 |
| o.w. Compensation for former second pillar pension contributors | ... | 0.9 |
| General govt. balance incl. one-offs | 5.7 | 2.3 |
| Structural balance 1/ | -3.9 | -4.5 |
| <i>Memo items:</i> | | |
| Net one-off items | 11.7 | 7.9 |
| Net one-off items in percent of potential GDP | 11.2 | 7.7 |
| Output gap 1/ | -4.4 | -2.3 |

Sources: Hungarian authorities; and IMF staff estimates.
1/ In percent of potential GDP.

of one-time expenditures, including (i) the assumption of the entire debt of public transport companies MAV and BKV, (ii) the cancellation of some previously contracted private-public partnership projects, and (iii) compensation for past voluntary contributions and real returns to the 97 percent of contributors who switched back to the first pension pillar. Moreover, after the poor budget performance in recent months, the authorities have introduced across-the-board expenditure cuts of 0.9 percent of GDP to help them meet the revised budget. Once accounting for the business cycle and excluding the various one-off items, staff estimates that the revised fiscal target implies a 4½ percent of GDP structural deficit in 2011, suggesting a further ¼ percent of GDP structural deterioration compared to 2010.

10. **The recently announced structural reform program, the Szell Kalman Plan, aims to restore fiscal sustainability and investor confidence.** The package, which relies primarily on expenditure measures, targets 1.8 percent of GDP fiscal consolidation in 2012 and an additional 1 percent of GDP in 2013. (See Text Table 2) The plan spells out specific measures in some areas while providing a timetable for releasing further details later in other areas. The spending cuts focus on social benefits, eligibility for early retirement and disability pensions, health care (especially subsidized pharmaceuticals), education, and public administration (local governments, see Box 2). On the revenue side, the plan reverses previous intentions to halve the financial sector levy in 2012 and reduce the standard Corporate Income Tax (CIT) rate from 19 to 10 percent in 2013; also, a road toll system will be introduced. To bring the headline 2012 deficit below 3 percent of GDP as required under the EU's excessive deficit procedure, the authorities are also planning to make the above-mentioned across-the-board expenditure cuts permanent, increase excises and fees on environmentally harmful goods, and substantially reduce the basic PIT allowance.

Measures of the Szell Kalman Plan
(Forint billion, unless otherwise indicated)

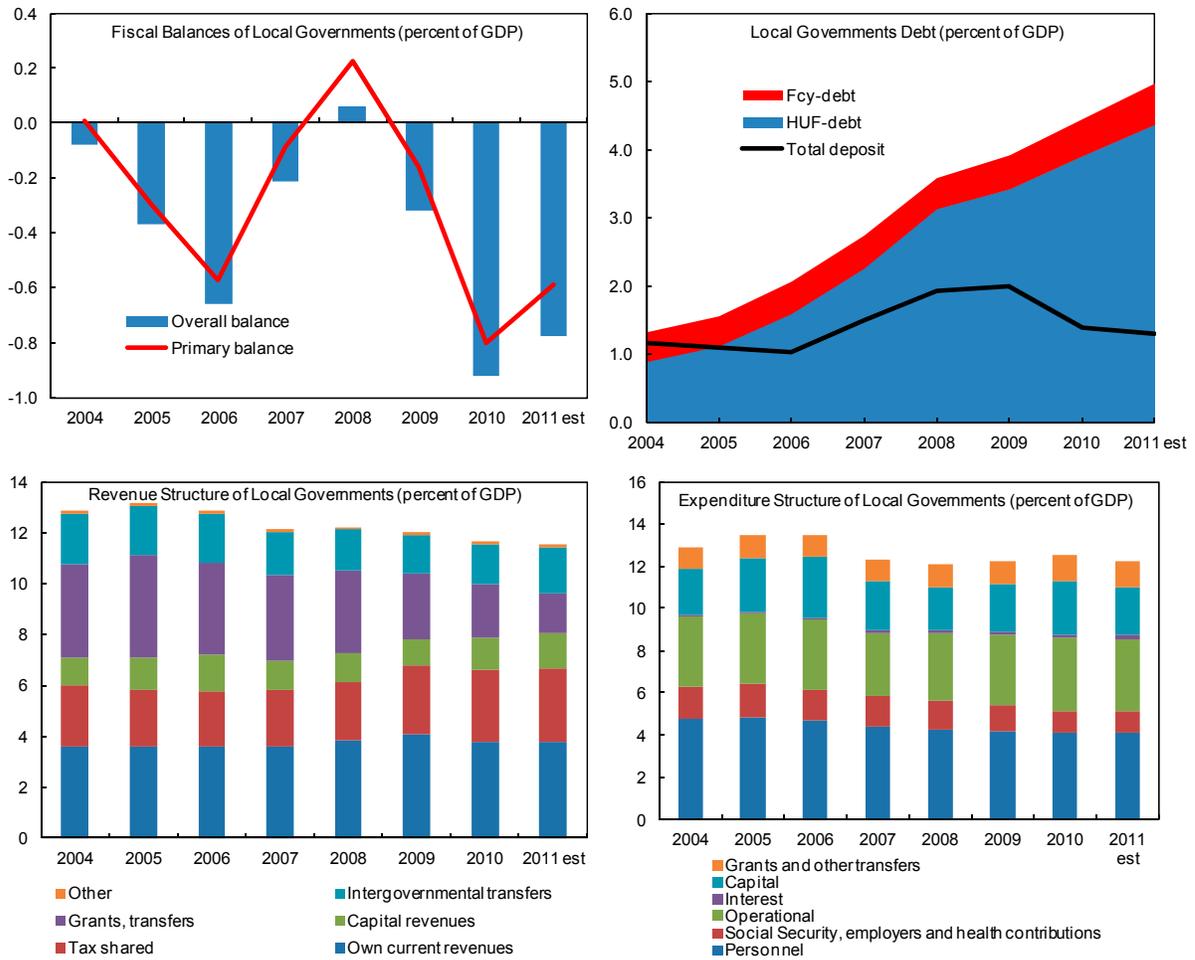
| | 2011 | 2012 | 2013 |
|--|------|------|------|
| Employment and Labor Market | 3 | 195 | 213 |
| Termination of job seeking assistance | 0 | 27 | 27 |
| Wage supplement system reform | 0 | 41 | 41 |
| Reduction of job-seeking benefits | 0 | 43 | 43 |
| Active labour market and vocational training provisions to be financed by EU funds | 0 | 41 | 41 |
| Review and modification of the conditions for sick pay eligibility | 3 | 10 | 10 |
| Cap on the total amount of family benefits | 0 | 15 | 15 |
| Nominal freeze of family benefits | 0 | 18 | 36 |
| Pension System | 12 | 93 | 129 |
| Pension indexation by CPI | 0 | 3 | 6 |
| Reduction or elimination of early retirement regimes | 0 | 0 | 3 |
| Termination of special retirement rules for armed forces | 0 | 2 | 3 |
| Tightening of conditions for disability pensions' eligibility, overhaul of allowances | 12 | 88 | 117 |
| Public Transport | 0 | 45 | 60 |
| Consolidation of public transport companies into a single holding | 0 | 5 | 15 |
| Debt takeover and cost efficiency savings in the public railways company MAV | 0 | 30 | 35 |
| Reduction of the preferential tariff system | 0 | 10 | 10 |
| Higher Education | 0 | 12 | 38 |
| Reduction and reallocation of tuition subsidies to higher education | 0 | 5 | 16 |
| Elimination of capacities not utilized, termination of statutory financing needs | 0 | 7 | 23 |
| Health Care | 0 | 83 | 120 |
| Increase in the payment by pharmaceutical companies | 0 | 16 | 15 |
| Generic drugs program | 0 | 29 | 33 |
| Revision of the therapies | 0 | 8 | 8 |
| Subsidies conditional on patient cooperative behavior | 0 | 3 | 4 |
| Use of international reference pricing and fixing of composite drugs | 0 | 4 | 4 |
| Reduction of subsidies on drugs to reduce cholesterol | 0 | 14 | 19 |
| Reform of certain treatments' financing regimes | 0 | 5 | 5 |
| Overhaul of principles applied for equity consideration in individual cases | 0 | 2 | 5 |
| Overhaul of the public subsidy system for the poor | 0 | 2 | 2 |
| Increase in fees in highly subsidized drugs; reduction in normative rates; review of several subsidies | 0 | 0 | 25 |
| State and Local Government Finances | 0 | 32 | 122 |
| Re-shuffling tasks performed by local governments based on economies of scale | 0 | 15 | 100 |
| Prohibition to issue debt to finance current operations; central government approval of investment loans | 0 | 0 | 0 |
| Strengthening of the tax authority, simplification of taxation procedures | 0 | 5 | 10 |
| Rationalization of central and background institutions; prohibition of outsourcing | 0 | 12 | 12 |
| Payments by the Public Debt Reduction Fund | 0 | 90 | 220 |
| Introduction of usage-based electronic toll system | 0 | 0 | 100 |
| Bank Tax | 0 | 90 | 0 |
| Reversal of the decision to reduce the CIT rate to 10 percent in 2013 | 0 | 0 | 120 |
| Total | 12 | 549 | 901 |
| In percent of GDP | 0.0 | 1.8 | 2.8 |

Sources: Hungarian authorities; and IMF staff estimates.

Box 2. Local Government Finances

Local government finances are under stress. Deficits are most acute in poor districts due to over-reliance on income-based revenue. This regional inequality is only partially compensated by central government transfers. Fiscal deterioration is compounded during election years amid substantial political pressure for higher expenditures. As a result, local government debt has steadily risen, reaching 5 percent of GDP at end-2010.

The Szell Kalman plan seeks to address this slippage. First, the authorities hope to increase efficiency by consolidating the provision of administrative services. And second, the plan tightens rules for local government debt issuance by preventing debt financing of current deficits and requiring central government approval for debt-financing of capital projects. However, the specifics of the plan have yet to be decided and the authorities have requested Fund technical assistance.



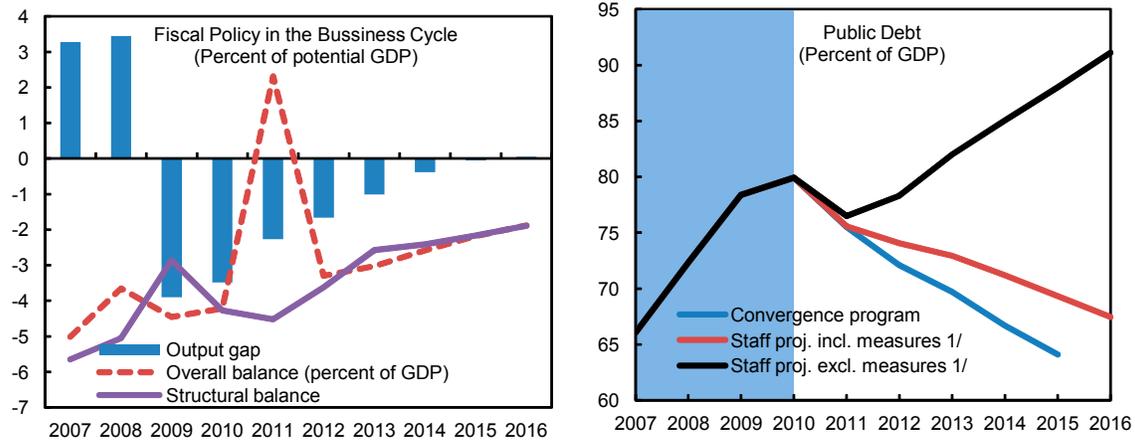
Sources: Hungarian authorities; and IMF staff estimates.

11. **The announced consolidation efforts will occur in the context of important changes to fiscal institutions.** First, the recently approved new constitution explicitly sets a public debt ceiling of 50 percent of GDP, although the exact transitional rules for the reduction from the present 80 percent still need to be spelled out. Second, a new Fiscal Council (replacing the one dissolved in December 2010) will express an opinion each year on the soundness the government's draft budget estimates. Finally, local governments will be required to obtain Central Government approval of all debt issuance related to the financing of capital projects, and will be prohibited from issuing debt to finance current spending.

12. **On monetary policy, the MNB ended a 75-bps tightening cycle in January, leaving the key policy rate at 6 percent.** The authorities began increasing the monetary policy rate in November amid forecasted inflation above the target for the entire horizon period as well as upward pressure on the risk premium. Medium-term inflation pressures subsequently subsided as the pass-through from supply shocks turned out to be lower than forecast, allowing core inflation to remain stable. The recent decline in risk premia has also further reduced the pressure for further monetary tightening.

13. **After consultation with the banking community, the government is nearing completion on a set of measures to address strains related to mortgage portfolios.** (Box 3). The aim of the proposal is to improve the functioning of the mortgage market, contain outstanding risks associated with FX lending, and limit social hardship. To do so, the authorities plan to reverse some recent policies (moratorium on evictions and the de facto ban on FX-denominated mortgage lending), directly support the purchase of foreclosed properties (subsidies to private sector buyers and outright government purchases by a national asset management fund), and limit the impact the impact of currency volatility on bank and household balance sheets (temporary exchange rate fixing for mortgage servicing).

the authorities have not yet decided how much of the pension asset transfers will be used for immediate debt reduction.⁵



1/ The measures include the Szell Kalman Plan and the additional fiscal consolidation measures announced for 2011. Sources: Hungarian authorities; and IMF staff estimates.

17. **The authorities agreed with some, but not all, implementation risks identified by staff.** Far-reaching social benefit cuts and revenue measures are reasonably well specified, suggesting a relatively high likelihood that they will be put in place quickly. Health and pension reforms, however, still lack detail and their outcome remains subject to the renegotiation of existing contracts (including with pharmaceutical companies) and to individual reassessments of eligibility—challenges acknowledged by the authorities. They also agreed that implementation risks loom large with respect to local government reform (see Box 2), which is why they envisaged substantial savings only from 2013 onward.

18. **Regarding prospects to address the perennial deficits of state-owned transport companies, the authorities were more optimistic than staff.** They argued that conditioning the assumption of MAV's debt on a comprehensive upfront restructuring plan, as suggested by staff, may shift this expenditure into 2012 and complicate meeting that year's deficit target agreed with the EU. While the authorities' public transport measures focus mainly on generating interest savings following the transfer of their debt to the state, staff urged to address underlying vulnerabilities such as overstaffing and other excessive operational costs.

19. **Staff also questioned the quality of some measures, including the plan's impact on the most vulnerable.** Staff argued that means-testing of social benefits would be preferable to the planned across-the-board cuts, especially in view of the highly regressive PIT reforms passed last year. The authorities stressed that the social benefit cuts, along with a new public works program, were primarily intended to move workers at all income levels

⁵ Government securities previously held by private pension funds (about 5 percent of GDP), will be automatically cancelled out and thus reduce debt. A yet to be determined part of the remaining 5.1 percent of GDP will be held as government assets for some time.

into employment. They did express interest in fine-tuning eligibility criteria for some benefits such as child allowances, for which they requested Fund technical assistance. The authorities saw less urgency than staff in addressing overstaffing in public administration (a key area of expenditure rationalization identified by last year's TA mission) as well as state-owned enterprises.

20. **Further efforts are needed to secure long-term fiscal sustainability.** Specifically, pension sustainability needs to be reassessed following the de facto nationalization of the second pension pillar. In this context, staff warned the authorities against taking comfort in the improvement of the first pillar's short-term cash position and reiterated concerns about the use of some returned pension assets for current spending. The authorities pointed to the recent switch to inflation indexation, which on the margin will improve long-term sustainability. Furthermore, their Convergence Program (published after the mission) envisages continued fiscal adjustment beyond the Szell Kalman plan's measures implemented in 2012–13, aiming at a headline general government deficit of 1½ of GDP and public debt below 65 percent of GDP in 2015.

21. **Staff also expressed concern about several aspects of the new fiscal framework.** While the new Fiscal Council has formal veto power over the budget and could *in extremis* dissolve parliament, staff thought that in practice it was unlikely to resort to such drastic actions. Moreover, the Council's mandate is more narrow than that of its predecessor: it only allows a once per year assessment of a given draft budget's feasibility rather than examining medium-term implications and educating the public on policy initiatives on an ongoing basis. Regarding the new constitutional debt limit, staff suggested to design implementation rules that allow for automatic stabilizers and avoid the pro-cyclical stance imposed by a binding debt ceiling. More generally, staff warned that the frequent changes to the fiscal framework may undermine confidence and policy stability. The authorities emphasized the latest changes were here to last, as they were anchored in the new constitution.

Financial Sector Policies

22. **Staff welcomed the government's work with banks on normalizing conditions in the mortgage market, noting however that measures currently under consideration still lack important detail.** The authorities acknowledged that the bank levy, the ban on foreign-exchange lending, and the foreclosure moratorium may be weighing on credit. Furthermore, staff agreed that a proposal that combines elimination of the bans on FX lending and foreclosures with temporary relief for borrowers may help the financial sector play a stronger role in the recovery going forward. That said, staff noted that support measures need to be well-targeted to minimize moral hazard and contain fiscal risks. For example, the exchange rate used under the fixing scheme (see Box 3) should be set at distressed levels and all subsidy schemes should include elements of means-testing. Such key parameters should be clarified as soon as possible.

23. **Regarding Hungary's outsized bank levy, staff argued that its recent extension until 2013 and uncertain plans thereafter were undermining financial sector stability.** Banking groups had started shifting funding and lending activity from Hungary to other countries in the region. The authorities reiterated their intention to eventually replace the levy with a smaller tax in line with emerging EU practice. Staff pointed out that an EU-wide standard was unlikely to materialize soon and suggested consideration of a financial activity tax if the purpose remained general revenue collection.

24. **The authorities noted a recent decline in the total size and average maturity of banks' external funding.** In recent months, banks have begun to reduce liquidity ratios from their elevated post-crisis levels. Though such normalization can be appropriate, the counterpart of the sale of liquid assets has largely been a repayment of long-term foreign liabilities, including to parent banks. This leaves Hungary's banks more exposed, at the margin, to shorter-term FX funding, both on balance sheet and in the FX swap market. Meanwhile, amid this shortening in the average maturity of FX funding, banks' substantial portfolio of longer term FX assets remains broadly unchanged given the average duration of mortgage loans in Swiss francs. The authorities thought that banks may be emphasizing profit at the expense of prudential considerations, which was particularly risky in light of ongoing tension in the European financial sector. Staff noted that parent banks had been a key source of additional financing during the crisis but broadly agreed with the authorities' assessment that recent developments on the whole increased liquidity risks. Furthermore, staff thought that the authorities' focus on macroprudential measures to address risks related to currency and maturity mismatch (along the lines of the Basel III stable funding ratio and liquidity coverage ratio) was appropriate, but felt that the broader issue also supported the argument for higher foreign exchange reserves going forward.

25. **Staff observed that advances made in on-site inspections had been preserved, but reiterated its earlier concerns that the framework for financial stability had been weakened.** On-site inspections continue at a similar frequency and intensity for systemically important banks as in the past two years. Moreover, the long-sought inspection of foreign subsidiaries of Hungarian banks in non-EU countries through an independent external auditor is now ongoing. The tri-partite financial stability council, consisting of the Hungarian Financial Supervisory Authority (HFSA), the MNB, and the Ministry of the National Economy is continuing, but its ability to initiate financial legislation or regulation on a "comply or explain" basis has been removed. Cooperation with banks' home country supervisors is also ongoing.

Monetary Policy and Reserve Management

26. **Staff and the MNB agreed that putting rates on hold is adequate at this juncture.** The risks from commodity prices were counterbalanced by the weak economy and improved risk premium. Looking forward, staff noted that potential monetary tightening elsewhere in Europe could complicate monetary policy if it triggered currency weakening before domestic demand had recovered. The authorities thought that such a risk was contained as they expected any tightening by the ECB to be slow in pace and moderate in degree. More

demand had recovered. The authorities thought that such a risk was contained as they expected any tightening by the ECB to be slow in pace and moderate in degree. More generally, monetary policy remains constrained by the need to avoid disorderly exchange rate depreciations in view of pervasive FX exposures particularly on household balance sheets.

27. **With current reserve coverage broadly adequate but modest by some measures (see Box 4), staff thought that going forward some additional accumulation would be useful.** Higher reserves would provide a helpful safety cushion given forthcoming external financing requirements for both the banking system and the public sector. In particular, the government's challenging 2012–14 amortization schedule—including its capacity to meet obligations to the Fund⁶—requires roll over rates for external market-held debt well above 100 percent. Furthermore, a reserves-to-short-term-debt ratio as low as 80 percent projected for 2011 (and only slightly increasing thereafter) compares unfavorably with neighboring countries and may have negative signaling effect in the markets. MNB staff pointed out that the short-term debt metric overstates the risks because a considerable part of such debt related to more stable parent bank funding of subsidiaries and intercompany loans. Going forward, MNB projections suggest that reserve coverage would still be within the target range suggested by its new framework for assessing reserve adequacy⁷, although this assumes a further pick-up up of EU transfers and sovereign debt placements.

28. **The authorities also saw drawbacks to staff's suggested means of increasing reserves.** Several options were discussed:

- ***Selling all foreign assets from the pension assets transfer*** (rather than 60 percent, as presently planned) and depositing receipts at the MNB. The authorities pointed out that some of these assets are relatively illiquid and thus difficult to sell quickly.
- ***Small, regular and preannounced FX purchases in the foreign exchange markets*** (similar, for example, to Turkey). The MNB was concerned that such an announcement would be difficult to communicate in a way that did not affect the exchange rate.
- ***Issuance of long-term FX-denominated sovereign debt in excess of current financing plans.*** The authorities said that additional external debt accumulation, even in the short term, would run counter to their stated goal to reduce debt.

⁶ Exposure to the IMF currently stands at €8.7 billion (9 percent of GDP and 26 percent of gross international reserves). Debt to the IMF is scheduled to be repaid mostly in 2012–13. In addition, repayments to the EU in excess of 3.5 percent of GDP are falling due in 2011 and 2014

⁷The MPC determines a target value for foreign-exchange reserves within a band based on three main indicators (the Guidotti–Greenspan rule, a cost-benefit optimising model and an indicator incorporating the level of gross debt), taking various auxiliary indicators into account.

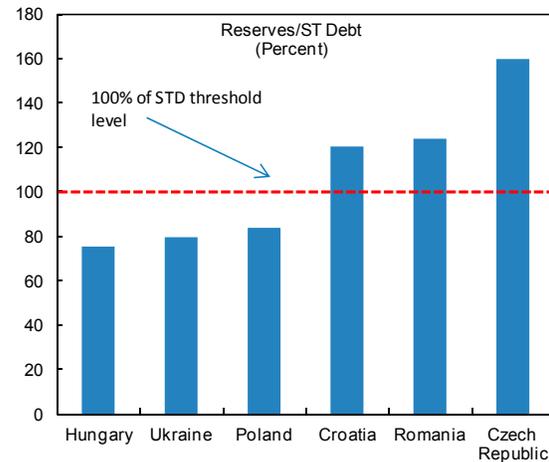
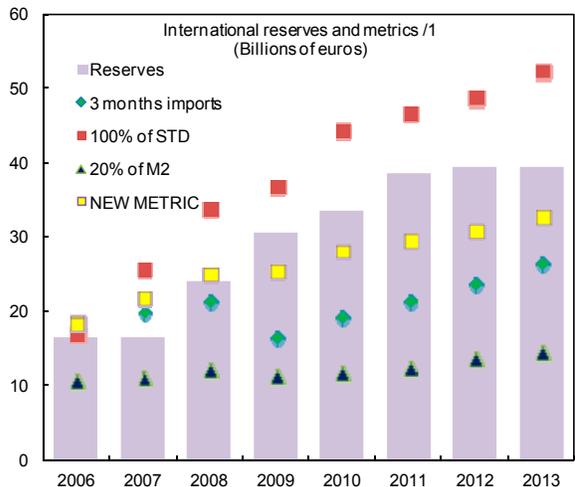
More generally, staff stressed that a strong policy record would help improve reserve adequacy, by increasing private sector inflows and also by facilitating Hungary’s access to international back-up facilities (e.g., precautionary Fund and EU arrangements or Central Bank swap lines). While the authorities agreed that a sound policy mix was critical, they said that such foreign support lines were not under consideration.

Box 4. Alternative Metrics of Reserve Coverage

The literature and policy makers’ experience provides a set of metrics for reserve adequacy. Traditional metrics include the extent to which the stock of reserves covers: (i) the stock of short-term debt at remaining maturity (to cover redemption obligations in the event of a drop in investors’ appetite for rolling over the maturing debt); (ii) three months of imports (to cover import needs in the event of a drop in sources of foreign exchange); and (iii) 20 percent of broad money, to cover against significant capital (deposit) flight.

A new metric, recently elaborated in a Board paper (see SM/11/31), looks at the level of reserves necessary to smooth the impact of large foreign exchange outflows as witnessed in severely affected crisis countries. Furthermore, the metric builds on the approach used for bank capital by “risk-weighting” different types of potential outflows. For countries with flexible exchange rate, in particular, it measures the level of reserves that would be able to cover a 30 percent reduction in short-term debt, a 10 percent reduction in other liabilities, a capital flight amounting to 5 percent of broad money, and a drop of 5 percent in exports.

Based on 2010 stocks, Hungary’s reserves are at adequate levels by most metrics, but fall significantly short (75 percent or nearly €11 billion) of short-term debt at remaining maturity (see charts below). By this metric, Hungary also falls below its peers in Eastern Europe. Whether achieving a-100 percent coverage is necessary, is open for debate as it depends on the risk of a severe sudden stop in capital flows and the impact on current investors’ confidence.



1/ The bar shows current and projected reserves in billions of Euros. The other symbols show the quantity of reserves needed to be adequate under different metrics including 3 months of imports, 100% of ST debt, and 20% of M2. The series "new metric" is a weighted combination of these thresholds as described in EBS/.... Short-term debt includes staff's estimate of intercompany loans falling due within one year.

IV. STAFF APPRAISAL

29. **Weighed down by long-standing vulnerabilities, Hungary is slowly rebounding from the 2008–09 crisis.** Ongoing doubts about the policy environment as well as fundamental weakness in credit, wages, and employment have been holding back the resumption of investment and consumption. Meanwhile, exports have performed well on the back of a supportive external environment, particularly in Germany. To make the economic recovery self-sustaining, however, Hungary needs to consolidate its public finances and remove structural impediments to growth.

30. **The authorities' recently announced Szell Kalman structural reform plan represents an effort to tackle these issues.** The size and scope of the envisaged multi-year fiscal consolidation are broadly appropriate, marking a welcome departure from the ad hoc and distortionary policy steps taken in 2010. In particular, the plan rightly focuses on reducing expenditures by rationalizing public services and removing obstacles to an increase in Hungary's low labor participation rates. Taken at face value, this plan will put public debt on a downward path, reduce risk premia, and eventually lift potential growth.

31. **However, the reform plan should be modified in a number of important areas.** More urgency should be placed on civil service reform, with concrete steps to reduce overstaffing at all levels of government. Means-testing of social benefits rather than cross-the-board cuts would be more durable and avoid placing a disproportionate burden on the most vulnerable. The restructuring of public transport companies could be more ambitious. Finally, special levies on specific sectors introduced last year should be eliminated as soon as possible, as they undermine the business climate. These steps would improve the plan's sustainability and potential to boost potential growth.

32. **Substantial implementation risks call for early and decisive action.** Fiscal slippages in 2010 and 2011 to date highlight the difficulty of translating policy intentions into results, particularly in the context of a still weak economy. In this context, the surplus in this year's budget (which is entirely due to the one-off revenue effect of the de-facto nationalization of the second pension pillar) and the current benign market environment must not lead to complacency, especially in light of the electoral timetable and a challenging public debt amortization schedule after 2012. To reduce implementation risks, the plans' timetable for spelling out specific policies should be adhered to strictly. Some measures, such as modifications to social benefit schemes, could already be put in place in 2011, with the additional advantage of spreading out the adjustment. Finally, assuming the debt of transport companies by the state should be delayed until a credible up-front restructuring plan is developed.

33. **Some recent changes to the fiscal framework could usefully be revisited.** The new Fiscal Council's mandate is narrower than that of its recently abolished predecessor, limiting its ability to provide effective governance. The new constitutional debt limit provides a

welcome signal of the authorities' determination to restore fiscal sustainability, but should be supplemented with carefully designed rules governing the transition from the present level and avoiding procyclical fiscal policies.

34. **With respect to financial sector issues, recent focus on addressing stress in real estate portfolios is welcome, but broader risks in the sector also warrant attention.** The measures now under discussion, especially the elimination of the FX lending and mortgage foreclosure ban, may help resume credit growth—although a final assessment will depend on crucial parameters that are still unknown. Support schemes for distressed mortgage holders are welcome but should be transparent and means-tested so as to minimize fiscal cost and moral hazard. Banks' large open FX position and their continued dependence on external funding call for increased vigilance, especially in view of ongoing tensions in the European financial sector. In this context, the authorities would be well advised to quickly eliminate the outsized bank levy as it is encouraging parent banks to shift funding and lending activity away from Hungary.

35. **The current monetary policy stance appears appropriate.** Still low core inflation and reduced risk premia allow keeping policy rates on hold for now. In light of a volatile global environment, the MNB should continue to monitor price and financial market developments closely.

36. **In view of high rollover risks for the sovereign and the banking system, some increase in reserve coverage would provide additional insurance.** Additional buffers are particularly important in view of ongoing tensions in the European financial system and large external amortizations falling due in 2012–14, including to IMF an EU. Further reserve accumulation could be achieved for example by diverting a larger share of foreign assets from the recently dissolved second pension pillar to the MNB; instituting small, regular and preannounced FX purchases; and issuing additional FX-denominated debt if market conditions remain favorable. Securing international back-up facilities, conditional on strong policy implementation, could also help.

Table 1. Hungary: Main Economic Indicators, 2007–12

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|--------|--------|--------|--------|----------------------------------|--------|
| | | | | | Projections | |
| Real economy (change in percent) | | | | | | |
| Real GDP | 0.8 | 0.8 | -6.7 | 1.2 | 2.6 | 2.5 |
| Total domestic demand 1/ | -1.3 | 0.8 | -10.7 | -1.1 | 1.5 | 1.1 |
| Private consumption 2/ | -1.7 | 0.6 | -6.8 | -2.2 | 2.0 | 1.3 |
| Public Consumption 2/ | -4.2 | 0.1 | 2.2 | -0.6 | -4.0 | 0.0 |
| Gross fixed investment | 1.7 | 2.9 | -8.0 | -5.6 | 1.5 | 2.0 |
| Foreign balance 1/ | 2.1 | 0.0 | 4.0 | 2.2 | 1.1 | 1.4 |
| Exports 2/ | 16.2 | 5.7 | -9.6 | 14.1 | 9.6 | 9.3 |
| Imports 2/ | 13.3 | 5.8 | -14.6 | 12.0 | 9.1 | 8.5 |
| CPI (end year) | 7.4 | 3.5 | 5.6 | 4.7 | 3.9 | 3.0 |
| CPI (average) | 8.0 | 6.1 | 4.2 | 4.9 | 4.1 | 3.4 |
| Unemployment rate (average, in percent) | 7.3 | 7.9 | 10.1 | 11.2 | 11.2 | 10.9 |
| Gross domestic investment (percent of GDP) 3/ | 21.4 | 21.4 | 20.9 | 19.3 | 0.0 | 19.1 |
| Gross national saving (percent of GDP, from BOP) | 14.4 | 14.1 | 21.2 | 21.4 | 20.8 | 20.7 |
| General government (percent of GDP), ESA-95 basis 4/ | | | | | | |
| Overall balance | -5.0 | -3.6 | -4.5 | -4.3 | 2.3 | -3.3 |
| Primary balance | -0.9 | 0.5 | 0.1 | -0.1 | 6.2 | 0.7 |
| Primary structural balance | -1.4 | -0.8 | 1.5 | -0.3 | -0.7 | 0.3 |
| Debt | 66.1 | 72.3 | 78.4 | 80.2 | 75.8 | 74.3 |
| Money and credit (end-of-period, percent change) | | | | | | |
| Broad money | 11.0 | 8.8 | 3.4 | 3.0 | 7.1 | 9.4 |
| Lending to the private sector, flow-based | 18.2 | 11.7 | -2.1 | -2.4 | 0.0 | 4.0 |
| Interest rates (percent) | | | | | | |
| T-bill (90-day, average) | 7.6 | 8.8 | 8.4 | 5.4 | ... | ... |
| Government bond yield (5-year, average) | 7.0 | 9.3 | 9.4 | 6.7 | ... | ... |
| Balance of payments | | | | | | |
| Goods and services trade balance (percent of GDP) | 0.9 | 0.4 | 5.1 | 7.2 | 7.8 | 9.0 |
| Current account (percent of GDP) | -6.9 | -7.3 | 0.4 | 2.1 | 1.7 | 1.6 |
| Reserves (in billions of euros) | 16.4 | 24.0 | 30.7 | 33.7 | 38.6 | 39.4 |
| Gross external debt (percent of GDP) 5/ | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 | 131.0 |
| Exchange rate | | | | | | |
| Exchange regime | | | | | Floating | |
| Present rate (May 6, 2011) | | | | | Ft 182.9 = US\$1; Ft. 265.4 = €1 | |
| Nominal effective rate (2000=100, average) | 93.7 | 93.3 | 102.6 | 102.7 | ... | ... |
| Real effective rate, CPI basis (2000=100, average) | 72.6 | 70.4 | 74.8 | 72.4 | ... | ... |
| Quota at the Fund SDR 1038.4 million | | | | | | |
| Memorandum Items | | | | | | |
| Nominal GDP (billions of forints) | 25,321 | 26,754 | 26,054 | 27,120 | 28,540 | 29,963 |

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

1/ Contribution to growth. Includes change in inventories.

2/ Calculated using previous year's prices

3/ Excludes change in inventories.

4/ Consists of the central government budget, social security funds, extrabudgetary funds, and local governments. It includes the impact of the government's fiscal consolidation package announced in February 2011, as estimated by the authorities, and the transfer of Pillar two pension assets to the state.

5/ Excluding Special Purpose Entities. Including inter-company loans, and nonresident holdings of forint-denominated assets.

Table 2. Hungary: Central Bank Survey, 2006–12
(Forint billions)

| | 2006 | 2007 | 2008 | 2009 | 2010 | | | | 2011 <i>Projection</i> | 2012 |
|---|--------|-------|--------|--------|--------|--------|--------|----------|---------------------------|--------|
| | | | | | Mar | June | Sep | Dec | | |
| Net foreign assets | 3,838 | 3,941 | 5,988 | 7,261 | 7,891 | 8,764 | 8,014 | 7,449 | 8,809 | 9,005 |
| Foreign Assets | 4,362 | 4,359 | 6,584 | 8,484 | 9,191 | 10,290 | 9,542 | 9,598 | 10,961 | 11,170 |
| Foreign Liabilities | 524 | 418 | 596 | 1,223 | 1,300 | 1,526 | 1,528 | 2,149 | 2,151 | 2,165 |
| Net domestic assets | -1,100 | -890 | -2,340 | -4,460 | -5,181 | -5,861 | -5,164 | -4,244 | -5,283 | -5,196 |
| Net claims on government | -141 | -108 | -1,286 | -709 | -1,148 | -1,200 | -1,011 | -827 | -1,721 | -1,038 |
| Assets | 233 | 147 | 360 | 279 | 279 | 260 | 260 | 249 | 262 | 262 |
| Liabilities (Govt Deposits at MNB) | 373 | 255 | 1,646 | 988 | 1,427 | 1,460 | 1,271 | 1,077 | 1,983 | 1,300 |
| HUF | 280 | 197 | 128 | 248 | 413 | 419 | 524 | 273 | ... | ... |
| FX | 93 | 58 | 1,518 | 741 | 1,014 | 1,041 | 747 | 804 | ... | ... |
| Net claims on banks | -998 | -706 | -913 | -3,147 | -3,345 | -3,373 | -3,281 | -2,564 | -2,710 | -3,306 |
| Assets | 0 | 0 | 177 | 0 | 4 | 16 | 36 | 36 | 29 | 29 |
| Liabilities | 998 | 706 | 1,089 | 3,147 | 3,348 | 3,389 | 3,317 | 2,601 | 2,739 | 3,336 |
| Two Week Deposit Facility | 991 | 270 | -114 | 244 | -57 | 389 | -19 | 120 | 120 | 120 |
| Securities Issued by MNB | 8 | 436 | 1,203 | 2,903 | 3,406 | 3,000 | 3,336 | 2,480 | 2,619 | 3,215 |
| Net claims on the economy | 2 | -118 | -47 | -197 | -356 | -356 | -239 | -354 | -354 | -354 |
| Other items, net | 37 | 42 | -95 | -406 | -333 | -932 | -632 | -498 | -498 | -498 |
| Base money (M0) | 2,505 | 3,051 | 3,647 | 2,801 | 2,710 | 2,903 | 2,850 | 3,206 | 3,526 | 3,808 |
| Currency in Circulation | 2,039 | 2,258 | 2,404 | 2,268 | 2,158 | 2,303 | 2,356 | 2,464 | 2,711 | 2,928 |
| Banks' Reserves | 466 | 793 | 1,243 | 533 | 552 | 600 | 494 | 741 | 815 | 881 |
| Memorandum items: | | | | | | | | | | |
| Base Money (yoy percent change) | 10.2 | 21.8 | 19.5 | -23.2 | -22.3 | -3.1 | -0.2 | 14.4 | 10.0 | 8.0 |
| Government Deposits at Central Bank (percent of GDP) | 1.6 | 1.0 | 6.2 | 3.8 | 5.4 | 5.5 | 4.7 | 4.0 | 6.9 | 4.3 |
| HUF | 1.2 | 0.8 | 0.5 | 1.0 | 1.6 | 1.6 | 2.0 | 1.0 | ... | ... |
| FX | 0.4 | 0.2 | 5.7 | 2.8 | 3.9 | 3.9 | 2.8 | 3.0 | ... | ... |
| Central Bank Bills Outstanding (percent of GDP) | 0.0 | 1.7 | 4.5 | 11.1 | 12.6 | 11.1 | 12.3 | 9.1 | 9.2 | 10.7 |
| Portion of CB Bills Owned by Non-Residents (percent) | | 15.2 | 7.2 | 4.0 | 11.2 | 8.8 | 12.2 | ... | ... | ... |
| Reserve Requirement Ratio (percent of select liabilities) | 5.0 | 5.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2% to 5% | ... | ... |

Sources: Magyar Nemzeti Bank; and IMF staff estimates.

Table 3. Hungary: Monetary Survey, 2006–11
(Forint billions)

| | 2006 | 2007 | 2008 | 2009 | 2010 | | | | 2011 | 2012 |
|--|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|
| | | | | | Mar | June | Sep | Dec | | |
| Net foreign assets | -78 | -947 | -1491 | 564 | 1192 | 1454 | 1216 | 1245 | 3392 | 3647 |
| Central Bank | 3838 | 3941 | 5988 | 7261 | 7891 | 8764 | 8014 | 7449 | 8809 | 9005 |
| Commercial Banks | -3915 | -4888 | -7478 | -6697 | -6699 | -7310 | -6798 | -6204 | -5417 | -5357 |
| Net domestic assets | 12863 | 15143 | 16938 | 15410 | 14784 | 14961 | 14995 | 15201 | 14221 | 15629 |
| Domestic credit | 15933 | 18302 | 21005 | 20300 | 19744 | 21107 | 20881 | 21132 | 20150 | 21540 |
| Net claims on government | 3026 | 3270 | 2955 | 3035 | 2785 | 3037 | 3323 | 3458 | 2477 | 3160 |
| Central Bank | -141 | -108 | -1286 | -709 | -1148 | -1200 | -1011 | -827 | -1721 | -1038 |
| Commercial Banks | 3166 | 3378 | 4241 | 3744 | 3933 | 4237 | 4334 | 4286 | 4198 | 4198 |
| Credit to the economy | 12908 | 15032 | 18049 | 17266 | 16959 | 18070 | 17558 | 17674 | 17674 | 18381 |
| o/w Commercial Banks | 12906 | 15150 | 18099 | 17462 | 17315 | 18426 | 17798 | 18028 | 18028 | 18749 |
| o/w Loans | 12857 | 15057 | 17995 | 17326 | 17174 | 18278 | 17681 | 17897 | 17897 | 18613 |
| HUF | 6478 | 6449 | 6214 | 6201 | 6303 | 6184 | 6378 | 6425 | 6425 | 6682 |
| FX | 6379 | 8608 | 11781 | 11125 | 10872 | 12094 | 11304 | 11472 | 11472 | 11931 |
| o/w Securities | 46 | 87 | 97 | 118 | 123 | 132 | 101 | 116 | 116 | 121 |
| Other items, net | -3071 | -3159 | -4067 | -4890 | -4961 | -6146 | -5886 | -5931 | -5929 | -5911 |
| Broad money (M3) | 12785 | 14196 | 15447 | 15974 | 15976 | 16415 | 16212 | 16446 | 17614 | 19277 |
| M2 | 11913 | 12937 | 14252 | 14364 | 14044 | 14328 | 14163 | 14359 | 15378 | 16830 |
| M1 | 5833 | 6348 | 6162 | 6122 | 5940 | 6339 | 6317 | 6635 | 7106 | 7777 |
| Currency in circulation | 1838 | 2068 | 2137 | 2039 | 1993 | 2150 | 2173 | 2218 | 2376 | 2600 |
| Overnight Deposits | 3995 | 4280 | 4025 | 4082 | 3947 | 4189 | 4144 | 4417 | 4730 | 5177 |
| Deposits with Maturities up to 2 years | 6080 | 6589 | 8090 | 8243 | 8104 | 7988 | 7846 | 7724 | 8272 | 9054 |
| Repos | 73 | 82 | 22 | 35 | 29 | 33 | 33 | 34 | 37 | 40 |
| Money Market Fund Shares/Units | 764 | 978 | 858 | 1115 | 1247 | 1345 | 1372 | 1333 | 1428 | 1563 |
| Debt Securities | 35 | 200 | 316 | 460 | 656 | 709 | 643 | 720 | 771 | 844 |
| Memorandum items : | | | | | | | | | | |
| | | | (percentage change by contribution, y-o-y) | | | | | | | |
| Broad Money | 13.6 | 11.0 | 8.8 | 3.4 | 0.1 | 3.4 | 2.5 | 3.0 | 7.1 | 9.4 |
| NFA | -4.0 | -6.8 | -3.8 | 13.3 | 11.4 | 12.3 | 3.6 | 4.3 | 13.1 | 1.4 |
| NDA | 17.7 | 17.8 | 12.6 | -9.9 | -11.3 | -8.9 | -1.1 | -1.3 | -6.0 | 8.0 |
| | | | (percentage change, y-o-y) | | | | | | | |
| Credit to Private Sector 1/ 2/ | 20.2 | 18.2 | 11.7 | -2.1 | -2.5 | -3.4 | -2.7 | -2.4 | 0 | 4 |
| HUF | 9.5 | -0.4 | -3.1 | 0.4 | 4.3 | -0.2 | 1.6 | 5.2 | ... | ... |
| FX | 36.6 | 40.6 | 23.7 | -3.5 | -6.2 | -5.5 | -5.5 | -7.0 | ... | ... |

Sources: Magyar Nemzeti Bank; and IMF staff estimates.

1/ Adjusted for changes in exchange rate

2/ Only credit to households and firms

Table 4. Hungary: Balance of Payments, 2005–16
(Euro millions)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|------------|----------|----------|----------|
| | | | | | | | | | Projection | | | |
| Current Account | -6,709 | -6,831 | -6,965 | -7,774 | 332 | 2,031 | 1,688 | 1,680 | 317 | -1,570 | -2,717 | -3,477 |
| Goods and service, net | -1,408 | -1,228 | 910 | 395 | 4,721 | 7,080 | 7,898 | 9,527 | 8,212 | 6,878 | 6,324 | 6,087 |
| Exports | 60,022 | 69,247 | 80,946 | 86,558 | 71,697 | 84,766 | 93,835 | 103,952 | 113,836 | 124,715 | 136,800 | 150,312 |
| Imports | -61,430 | -70,476 | -80,035 | -86,163 | -66,976 | -77,686 | -85,937 | -94,425 | -105,624 | -117,838 | -130,477 | -144,225 |
| Income, net | -5,019 | -5,298 | -7,372 | -7,583 | -4,747 | -5,441 | -6,455 | -7,944 | -7,999 | -8,583 | -9,187 | -9,710 |
| Current transfers, net | -282 | -305 | -503 | -587 | 359 | 392 | 245 | 98 | 104 | 135 | 147 | 145 |
| Capital Account | 599 | 685 | 708 | 1,016 | 1,109 | 1,790 | 1,545 | 2,041 | 2,012 | 2,012 | 2,012 | 2,012 |
| Net capital transfers | 586 | 670 | 789 | 919 | 1,707 | 1,790 | 1,545 | 2,041 | 2,012 | 2,012 | 2,012 | 2,012 |
| Financial Account | 12,007 | 8,841 | 6,663 | 10,039 | -3,909 | 1,309 | 5,316 | 1,928 | 3,500 | 5,453 | 2,975 | 4,710 |
| Direct investment, net | 4,417 | 2,327 | 209 | 2,809 | -443 | 580 | 429 | 551 | 1,741 | 2,084 | 2,257 | 2,358 |
| Direct Investment Abroad | -1,756 | -3,127 | -2,643 | -2,087 | -1,938 | -628 | -1,321 | -1,287 | -1,665 | -1,751 | -1,839 | -1,947 |
| In Hungary | 6,172 | 5,454 | 2,852 | 4,896 | 1,495 | 1,208 | 1,751 | 1,838 | 3,406 | 3,835 | 4,096 | 4,304 |
| Portfolio investment, net 1/ | 3,388 | 5,222 | -789 | -3,153 | -2,673 | 615 | 7,138 | 1,276 | 1,680 | 3,275 | 558 | 2,207 |
| Other investment | 4,203 | 1,292 | 7,242 | 10,383 | -793 | 114 | -2,252 | 101 | 79 | 94 | 161 | 145 |
| Net errors and omissions | -1,989 | -1,728 | -272 | -2,528 | -518 | -2,112 | -1,600 | -1,200 | -1,200 | -1,200 | -1,200 | -1,200 |
| Overall Balance | 3,908 | 968 | 134 | 753 | -2,985 | 3,018 | 6,949 | 4,450 | 4,630 | 4,695 | 1,071 | 2,045 |
| Prospective Financing | | | | 2,000 | 3,500 | 0 | -2,000 | 0 | 0 | -2,000 | 0 | -1,500 |
| European Union | | | | 2,000 | 3,500 | 0 | -2,000 | 0 | 0 | -2,000 | 0 | -1,500 |
| World Bank | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bank Guarantee Fund | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net International Reserves (increase -) | -3,908 | -968 | -134 | -2,753 | -515 | -3,018 | -4,949 | -4,450 | -4,630 | -2,695 | -1,071 | -545 |
| Gross Reserves | -3,908 | -968 | -134 | -7,676 | -5,499 | -3,018 | -4,949 | -756 | -222 | -1,999 | -1,071 | -546 |
| Reserve Liabilities | 0 | 0 | 0 | 4,923 | 4,984 | 0 | 0 | -3,694 | -4,407 | -696 | 0 | 1 |
| Bank Guarantee Fund | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Prospective Fund credits | 0 | 0 | 0 | 4,923 | 4,984 | 0 | 0 | -3,694 | -4,407 | -696 | 0 | 1 |
| Current account (in percent of GDP) | -7.6 | -7.6 | -6.9 | -7.3 | 0.4 | 2.1 | 1.7 | 1.6 | 0.3 | -1.3 | -2.1 | -2.6 |
| Gross external debt (in percent of GDP) | 81.0 | 96.5 | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 | 131.0 | 122.8 | 117.7 | 113.2 | 109.4 |
| Gross official reserves | 15,721 | 16,397 | 16,385 | 24,040 | 30,676 | 33,675 | 38,624 | 39,380 | 39,602 | 41,601 | 42,672 | 43,218 |
| In percent of short-term debt | | | | | | | | | | | | |
| at remaining maturity | 99.9 | 95.9 | 63.8 | 71.0 | 83.4 | 75.9 | 82.6 | 83.2 | 81.0 | 89.3 | 87.5 | 89.6 |

Sources: Hungarian authorities; and IMF staff estimates.

1/ In 2011 includes liquidation of foreign assets in 2nd pillar pension funds projected at euro 2.5 bn.

Table 5: Hungary. Balance of Payments, 2005–16
(Percent of GDP)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|--------|--------|--------|--------|--------|--------|------------|--------|--------|--------|--------|--------|
| | | | | | | | Projection | | | | | |
| Current Account | -7.6 | -7.6 | -6.9 | -7.3 | 0.4 | 2.1 | 1.7 | 1.6 | 0.3 | -1.3 | -2.1 | -2.6 |
| Goods and service, net | -1.6 | -1.4 | 0.9 | 0.4 | 5.1 | 7.2 | 7.8 | 9.0 | 7.3 | 5.8 | 5.0 | 4.5 |
| Exports | 67.7 | 77.1 | 80.3 | 81.3 | 77.2 | 86.6 | 92.9 | 98.0 | 101.3 | 104.4 | 108.0 | 112.3 |
| Imports | -69.3 | -78.5 | -79.4 | -80.9 | -72.1 | -79.3 | -85.0 | -89.0 | -94.0 | -98.6 | -103.0 | -107.7 |
| Income, net | -5.7 | -5.9 | -7.3 | -7.1 | -5.1 | -5.6 | -6.4 | -7.5 | -7.1 | -7.2 | -7.3 | -7.3 |
| Current transfers, net | -0.3 | -0.3 | -0.5 | -0.6 | 0.4 | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Capital Account | 0.7 | 0.8 | 0.7 | 1.0 | 1.2 | 1.8 | 1.5 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 |
| Net capital transfers from the EU | 0.7 | 0.7 | 0.8 | 0.9 | 1.8 | 1.8 | 1.5 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 |
| Financial Account | 13.5 | 9.8 | 6.6 | 9.4 | -4.2 | 1.3 | 5.3 | 1.8 | 3.1 | 4.6 | 2.3 | 3.5 |
| Direct investment, net | 5.0 | 2.6 | 0.2 | 2.6 | -0.5 | 0.6 | 0.4 | 0.5 | 1.5 | 1.7 | 1.8 | 1.8 |
| Direct Investment Abroad | -2.0 | -3.5 | -2.6 | -2.0 | -2.1 | -0.6 | -1.3 | -1.2 | -1.5 | -1.5 | -1.5 | -1.5 |
| In Hungary | 7.0 | 6.1 | 2.8 | 4.6 | 1.6 | 1.2 | 1.7 | 1.7 | 3.0 | 3.2 | 3.2 | 3.2 |
| Portfolio investment, net 1/ | 3.8 | 5.8 | -0.8 | -3.0 | -2.9 | 0.6 | 7.1 | 1.2 | 1.5 | 2.7 | 0.4 | 1.6 |
| Other investment | 4.7 | 1.4 | 7.2 | 9.8 | -0.9 | 0.1 | -2.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Net errors and omissions | -2.2 | -1.9 | -0.3 | -2.4 | -0.6 | -2.2 | -1.6 | -1.1 | -1.1 | -1.0 | -0.9 | -0.9 |
| Overall Balance | 4.4 | 1.1 | 0.1 | 0.7 | -3.2 | 3.1 | 6.9 | 4.2 | 4.1 | 3.9 | 0.8 | 1.5 |
| Prospective Financing | 0.0 | 0.0 | 0.0 | 1.9 | 3.8 | 0.0 | -2.0 | 0.0 | 0.0 | -1.7 | 0.0 | -1.1 |
| European Union | 0.0 | 0.0 | 0.0 | 1.9 | 3.8 | 0.0 | -2.0 | 0.0 | 0.0 | -1.7 | 0.0 | -1.1 |
| World Bank | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bank Guarantee Fund | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Net International Reserves (increase -) | -4.4 | -1.1 | -0.1 | -2.6 | -0.6 | -3.1 | -4.9 | -4.2 | -4.1 | -2.3 | -0.8 | -0.4 |
| Gross Reserves | -4.4 | -1.1 | -0.1 | -7.2 | -5.9 | -3.1 | -4.9 | -0.7 | -0.2 | -1.7 | -0.8 | -0.4 |
| Reserve Liabilities | 0.0 | 0.0 | 0.0 | 4.6 | 5.4 | 0.0 | 0.0 | -3.5 | -3.9 | -0.6 | 0.0 | 0.0 |
| Bank Guarantee Fund | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prospective Fund credits | 0.0 | 0.0 | 0.0 | 4.6 | 5.4 | 0.0 | 0.0 | -3.5 | -3.9 | -0.6 | 0.0 | 0.0 |
| Gross external debt (in percent of GDP) | 81.0 | 96.5 | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 | 131.0 | 122.8 | 117.7 | 113.2 | 109.4 |
| Gross official reserves | 15,721 | 16,397 | 16,385 | 24,040 | 30,676 | 33,675 | 38,624 | 39,380 | 39,602 | 41,601 | 42,672 | 43,218 |
| In percent of short-term debt at remaining maturity | 99.9 | 95.9 | 63.8 | 71.0 | 83.4 | 75.9 | 82.6 | 83.2 | 81.0 | 89.3 | 87.5 | 89.6 |

Sources: Hungarian authorities; and staff projections.

1/ In 2011 includes liquidation of foreign assets in 2nd pillar pension funds projected at euro 2.5 bn.

Table 6. Hungary: External Financing Needs, 2009–16
(Euros millions)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|------------|--------|--------|--------|--------|--------|--------|--------|
| | Projection | | | | | | | |
| Total financing requirements | 30,980 | 35,704 | 37,715 | 37,199 | 40,115 | 45,944 | 43,900 | 48,094 |
| Current account deficit - EU capital transfers | -1,442 | -3,821 | -3,233 | -3,722 | -2,329 | -442 | 705 | 1,465 |
| Amortizations | 31,904 | 37,413 | 39,349 | 39,721 | 41,244 | 45,186 | 41,995 | 45,429 |
| FDI (inter company) | 4,320 | 6,190 | 5,976 | 6,186 | 6,407 | 6,816 | 7,276 | 7,767 |
| General government | 4,340 | 4,673 | 7,420 | 9,076 | 10,313 | 11,877 | 8,303 | 11,353 |
| o/w: to IMF and EU | 0 | 0 | 2,000 | 3,694 | 4,407 | 2,696 | 0 | 1,499 |
| Banks | 17,633 | 20,047 | 18,476 | 17,061 | 16,319 | 17,016 | 15,409 | 15,852 |
| Other investment (mainly corporate) | 5,611 | 6,503 | 7,476 | 7,398 | 8,206 | 9,477 | 11,007 | 10,457 |
| Net errors and omissions | 518 | 2,112 | 1,600 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 |
| Total financing sources | 22,496 | 35,704 | 37,715 | 37,199 | 40,115 | 45,944 | 43,900 | 48,094 |
| FDI net inflows (excl. inter-company) | 3,877 | 6,770 | 6,406 | 6,737 | 8,148 | 8,900 | 9,533 | 10,125 |
| Disbursements (debt) | 25,192 | 31,432 | 32,621 | 30,890 | 31,837 | 38,682 | 35,065 | 38,132 |
| General government 1/ | 4,661 | 5,289 | 9,502 | 6,218 | 7,059 | 11,915 | 8,303 | 11,488 |
| Banks | 13,703 | 19,022 | 15,643 | 16,959 | 16,232 | 16,915 | 15,341 | 15,774 |
| Other investment (mainly corporate) | 6,828 | 7,121 | 7,476 | 7,713 | 8,546 | 9,851 | 11,421 | 10,870 |
| Other portfolio flows net | -1,074 | 520 | 3,638 | 328 | 352 | 362 | 373 | 383 |
| Drawdown in gross reserves | -5,499 | -3,018 | -4,949 | -756 | -222 | -1,999 | -1,071 | -546 |
| Financing gap (baseline) | 8,484 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EU loan | 3,500 | 0 | -2,000 | 0 | 0 | -2,000 | 0 | -1,500 |
| Fund credits | 3,811 | 0 | 0 | -3,694 | -4,407 | -696 | 0 | 0 |
| SDR allocation | 1,173 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Memo items | | | | | | | | |
| Gross international reserves (level in Euro million) | 30,676 | 33,675 | 38,624 | 39,380 | 39,602 | 41,601 | 42,672 | 43,218 |
| Government rollover rates | 107 | 113 | 128 | 69 | 68 | 100 | 100 | 101 |
| o/w: Percent rollover on non-EU/IMF external debt | 107 | 113 | 175 | 116 | 120 | 130 | 100 | 117 |
| Banks' rollover rates | 78 | 95 | 85 | 99 | 99 | 99 | 100 | 100 |
| Corporate rollover rates (in percent) | 122 | 110 | 100 | 104 | 104 | 104 | 104 | 104 |

Sources: Hungarian authorities; and IMF staff estimates.
1/ Excludes EU and IMF loans.

Table 7. Hungary: Indicators of External Vulnerability, 2006–11

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 Est. |
|--|--------|--------|--------|--------|--------|--------------|
| Financial Indicators | | | | | | |
| M3, end-of-period, percent change | 13.6 | 11.0 | 8.8 | 3.4 | 3.0 | 7.1 |
| Lending to the private sector, flow based, end-of-period, percentage change 1/ | 20.2 | 18.2 | 11.7 | -2.1 | -2.4 | 0.0 |
| T-bill, 90-day, average, in percent | 7.0 | 7.6 | 8.8 | 8.4 | 5.4 | ... |
| Government bond yield, 5-year, average, in percent | 7.4 | 7.0 | 9.2 | 9.3 | 7 | ... |
| Share of foreign currency liabilities in total liabilities | 39.3 | 42.4 | 45.6 | 47.0 | 45.6 | ... |
| Share of foreign currency loans by sector | | | | | | |
| Corporates | 47.1 | 52.6 | 60.3 | 61.3 | 60.7 | ... |
| Households | 46.8 | 59.0 | 70.7 | 70.2 | 70.6 | ... |
| Other loans | 75.4 | 81.7 | 87.1 | 85.7 | 83.2 | ... |
| Non-performing loans to gross loans 2/ | 2.6 | 2.3 | 3.0 | 6.7 | 9.3 | ... |
| External Indicators | | | | | | |
| Exports of goods and services, annual percentage change | 15.4 | 16.9 | 6.9 | -17.2 | 18.2 | 10.7 |
| Imports of goods and services, annual percentage change | 14.7 | 13.6 | 7.7 | -22.3 | 16.0 | 10.6 |
| Real effective exchange rate, percentage change, + = appreciation | -5.2 | 11.3 | 2.9 | -8.4 | 2.7 | -0.7 |
| Current account balance, in percent of GDP | -7.6 | -6.9 | -7.3 | 0.4 | 2.1 | 1.7 |
| Capital account, in percent of GDP | 0.8 | 0.7 | 1.0 | 1.2 | 1.8 | 1.5 |
| Financial account, in percent of GDP | 9.8 | 6.6 | 9.4 | -4.2 | 1.3 | 5.3 |
| Net foreign direct investment, in percent of GDP | 2.6 | 0.2 | 2.6 | -0.5 | 0.6 | 0.4 |
| Gross official reserves, in millions of euros | 16,397 | 16,385 | 24,040 | 30,676 | 33,675 | 38,624 |
| In months of imports of goods and services | 2.5 | 2.3 | 4.3 | 4.7 | 4.7 | 4.9 |
| In percent of short-term debt at remaining maturity | 95.9 | 63.8 | 71.0 | 83.4 | 75.9 | 82.6 |
| Total external debt, including SPEs, in percent of GDP 3/ | 111.9 | 119.7 | 148.6 | 177.3 | ... | ... |
| Total external debt, excluding SPEs, in percent of GDP | 96.5 | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 |
| Of which: | | | | | | |
| Direct investment intercompany loans | 14.7 | 16.4 | 22.8 | 30.7 | 30.7 | 30.7 |
| General government | 33.2 | 33.7 | 36.0 | 42.4 | 42.4 | 42.4 |
| Of which: non-residents holdings of local currency government bonds | 13.0 | 12.8 | 8.0 | 8.7 | 8.7 | 8.7 |
| Central bank | 1.1 | 0.6 | 1.1 | 5.1 | 5.1 | 5.1 |
| Banks | 27.6 | 30.7 | 40.1 | 42.8 | 42.8 | 42.8 |
| Non-financial institutions | 19.9 | 21.8 | 16.1 | 20.2 | 20.2 | 20.2 |
| Short-term debt at remaining maturity 4/ | 17,100 | 25,663 | 33,845 | 36,801 | 44,384 | 46,766 |
| Financial Market Indicators | | | | | | |
| Stock market index, local currency, end-of-period | 24,844 | 26,236 | 12,242 | 21,227 | 21,460 | ... |
| EMBI Global bonds spread, end-of-period | 58.0 | 84.0 | 504.0 | 186.0 | 411.0 | ... |
| CDS spread, 5-year, end-of-period | 20.8 | 54.8 | 419.1 | 237.9 | 383.9 | ... |

Source: Hungarian authorities; and IMF staff estimates.

1/ Loans to households and non-financial corporations adjusted for movements in the exchange rate.

2/ Non-performing loans are defined as corporate, household, interbank, foreign and other loans that are past due for more than 90 days.

3/ Special Purpose Entities are defined as resident corporations of non-resident owners, which perform a passive, financial intermediary function between the non-resident partners. SPEs have a marginal impact on the domestic economy, and their transactions have negligible net impact on the balance of payments (an enterprise that has a non-negligible net impact on the balance of payments is removed from the list of SPEs). Foreign assets and liabilities of SPEs are largely matched, and loans are considered as FDI in accordance with international statistical standards. Data for SPEs are not available prior to 2006.

4/ Includes an estimate of intercompany loans falling due in the short-term.

Table 8. Hungary: Staff's Illustrative Medium-Term Scenario, 2007–16

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Average 2002-07 | Average 2013-16 |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|--------------------|
| | Projections | | | | | | | | | | | |
| | (In percent, unless otherwise indicated) | | | | | | | | | | | |
| Real GDP growth | 0.8 | 0.8 | -6.7 | 1.2 | 2.6 | 2.5 | 3.0 | 3.2 | 3.1 | 2.8 | 3.4 | 3.0 |
| Nominal GDP, forint billions | 25,321 | 26,754 | 26,054 | 27,120 | 28,540 | 29,963 | 31,741 | 33,742 | 35,780 | 37,814 | ... | ... |
| Inflation (CPI; year average basis) | 8.0 | 6.1 | 4.2 | 4.9 | 4.1 | 3.4 | 3.0 | 3.0 | 3.0 | 3.0 | 5.4 | 3.0 |
| Inflation (CPI; end-year basis) | 7.4 | 3.5 | 5.6 | 4.7 | 3.9 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | ... | ... |
| | (Annual percentage change, constant prices) | | | | | | | | | | | |
| Domestic demand | -1.3 | 0.8 | -10.8 | -1.1 | 1.6 | 1.2 | 5.0 | 5.0 | 4.2 | 3.5 | 2.9 | 4.4 |
| Total consumption | -2.0 | 0.5 | -5.7 | -2.0 | 1.2 | 1.1 | 4.9 | 4.7 | 4.2 | 3.3 | 3.8 | 4.3 |
| Gross fixed capital formation | 1.7 | 2.9 | -8.0 | -5.6 | 1.5 | 2.0 | 5.0 | 6.0 | 4.0 | 4.3 | 4.1 | 4.8 |
| Exports of GNFS | 16.2 | 5.7 | -9.6 | 14.1 | 9.6 | 9.3 | 8.2 | 8.1 | 8.1 | 8.0 | 11.9 | 8.1 |
| Imports of GNFS | 13.3 | 5.8 | -14.6 | 12.0 | 9.1 | 8.5 | 10.8 | 10.2 | 9.4 | 8.8 | 10.9 | 9.8 |
| Lending to the private sector, flow-based (current prices, e.o.p.) | 18.2 | 11.7 | -2.1 | -2.4 | 0.0 | 4.0 | ... | ... | ... | ... | ... | ... |
| Unemployment rate (percent of labor force, year average basis) | 7.3 | 7.9 | 10.1 | 11.2 | 11.2 | 10.9 | 10.7 | 10.1 | 9.5 | 8.9 | 6.6 | 9.8 |
| | (In percent of GDP, unless otherwise indicated) | | | | | | | | | | | |
| External current account balance | -6.9 | -7.3 | 0.4 | 2.1 | 1.7 | 1.6 | 0.3 | -1.3 | -2.1 | -2.6 | -7.6 | -1.4 |
| Gross national saving | 14.4 | 14.1 | 21.2 | 21.4 | 20.8 | 20.7 | 19.8 | 18.7 | 18.1 | 18.0 | 14.8 | 18.6 |
| Gross national investment 1/ | 21.4 | 21.4 | 20.9 | 19.3 | 19.1 | 19.1 | 19.5 | 20.0 | 20.2 | 20.5 | 22.3 | 20.1 |
| Capital account, net | 0.7 | 1.0 | 1.2 | 1.8 | 1.5 | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | ... | ... |
| Financial account, net | 6.6 | 9.4 | -4.2 | 1.3 | 5.3 | 1.8 | 3.1 | 4.6 | 2.3 | 3.5 | ... | ... |
| Gross external debt 2/ | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 | 131.0 | 122.8 | 117.7 | 113.2 | 109.4 | ... | ... |
| General government (ESA-95) | | | | | | | | | | | | |
| Revenue, total | 45.0 | 45.2 | 46.1 | 44.6 | 52.5 | 42.4 | 41.6 | 41.8 | 42.0 | 42.2 | 42.5 | 41.9 |
| Expenditure, primary | 45.9 | 44.7 | 46.0 | 44.7 | 46.2 | 41.7 | 40.6 | 40.4 | 40.2 | 40.2 | 46.2 | 40.4 |
| Primary balance 3/ | -0.9 | 0.5 | 0.1 | -0.1 | 6.2 | 0.7 | 0.9 | 1.4 | 1.8 | 2.0 | -3.5 | 1.5 |
| General government balance (including the costs of pension reform) | -5.0 | -3.6 | -4.5 | -4.3 | 2.3 | -3.3 | -3.0 | -2.6 | -2.2 | -1.9 | -7.4 | -2.4 |
| Interest expenditure | 4.1 | 4.1 | 4.5 | 4.1 | 3.9 | 4.0 | 4.0 | 4.0 | 3.9 | 3.9 | 3.8 | 3.9 |
| General government debt | 66.1 | 72.3 | 78.4 | 80.2 | 75.8 | 74.3 | 73.2 | 71.4 | 69.5 | 67.7 | 61.1 | 70.5 |
| Memorandum items | | | | | | | | | | | | |
| Output gap | 3.3 | 3.4 | -3.9 | -3.5 | -2.3 | -1.7 | -1.0 | -0.4 | 0.0 | 0.0 | ... | ... |
| Potential GDP growth | 1.2 | 0.7 | 0.4 | 0.8 | 1.3 | 1.8 | 2.3 | 2.6 | 2.7 | 2.8 | 2.6 | 2.4 |
| Structural general government balance | -5.6 | -5.1 | -2.9 | -4.3 | -4.5 | -3.6 | -2.6 | -2.4 | -2.2 | -1.9 | ... | ... |
| Structural primary balance (in percent of potential GDP) | -1.4 | -0.8 | 1.5 | -0.3 | -0.7 | 0.3 | 1.4 | 1.6 | 1.8 | 2.0 | ... | ... |
| Gross official reserves (percent of short-term debt at remaining maturity) | 63.8 | 71.0 | 83.4 | 75.9 | 82.6 | 83.2 | 81.0 | 89.3 | 87.5 | 89.6 | ... | ... |

Sources: Hungarian authorities; and staff estimates.

1/ Excludes change in inventories.

2/ Excluding Special Purpose Entities. Including inter-company loans, and nonresident holdings of forint-denominated assets.

3/ Includes interest revenue.

Table 9. Hungary: Consolidated General Government, 2008–16 1/
(In percent of GDP, unless otherwise indicated)

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Projections | | | | | | | | |
| Total revenues | 45.2 | 46.0 | 44.4 | 42.3 | 42.4 | 41.6 | 41.8 | 42.0 | 42.2 |
| Current revenues and current transfers (incl. grants) | 44.6 | 44.6 | 42.5 | 40.3 | 40.3 | 39.5 | 39.7 | 39.9 | 40.2 |
| Tax revenues | 39.8 | 39.3 | 37.1 | 35.9 | 36.0 | 34.8 | 35.0 | 35.2 | 35.5 |
| Taxes on income, profits and capital gains | 10.5 | 9.8 | 8.4 | 7.1 | 6.9 | 5.6 | 5.6 | 5.6 | 5.7 |
| Personal income tax | 7.6 | 7.3 | 6.4 | 4.6 | 4.5 | 4.0 | 4.0 | 4.0 | 4.1 |
| Corporate income tax | 2.6 | 2.2 | 0.1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Levy on financial institutions | 0.0 | 0.0 | 0.6 | 0.6 | 0.6 | 0.3 | 0.3 | 0.3 | 0.3 |
| Levy on energy, telecommunication, and retail companies | 0.0 | 0.0 | 0.4 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other (incl. wealth, capital, and property taxes) | 0.3 | 0.3 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Taxes on payroll and workforce and Social Security contributions | 13.7 | 13.1 | 12.0 | 12.5 | 12.4 | 12.7 | 12.7 | 12.8 | 13.0 |
| Taxes on goods and services | 15.5 | 16.3 | 16.7 | 16.3 | 16.6 | 16.6 | 16.7 | 16.8 | 16.8 |
| VAT | 7.6 | 8.3 | 8.5 | 8.2 | 8.3 | 8.3 | 8.4 | 8.5 | 8.5 |
| Other (incl. excises and duties) | 7.9 | 8.1 | 8.2 | 8.1 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 |
| Current non-tax revenues | 4.0 | 4.3 | 4.2 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| Current transfers (incl. grants) | 0.8 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Capital revenues and capital transfers (incl. grants) | 0.6 | 1.4 | 1.9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| Total expenditures 3/ | 48.8 | 50.5 | 48.9 | 50.1 | 45.7 | 44.6 | 44.4 | 44.2 | 44.1 |
| Current expenditures and current transfers | 44.7 | 46.3 | 44.3 | 42.5 | 40.9 | 39.9 | 39.7 | 39.5 | 39.4 |
| Compensation of employees 2/ | 11.5 | 11.4 | 10.7 | 10.2 | 10.0 | 9.6 | 9.6 | 9.6 | 9.5 |
| Goods and services | 7.1 | 7.7 | 7.7 | 7.1 | 7.0 | 6.9 | 6.8 | 6.8 | 6.8 |
| Interest payments | 4.1 | 4.5 | 4.1 | 3.9 | 4.0 | 4.0 | 4.0 | 3.9 | 3.9 |
| Subsidies | 1.1 | 0.9 | 0.9 | 0.9 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 |
| Current transfers to households | 18.5 | 19.1 | 18.3 | 17.8 | 17.0 | 16.5 | 16.4 | 16.4 | 16.4 |
| Social security | 14.2 | 14.6 | 14.2 | 14.3 | 13.5 | 13.0 | 13.0 | 12.9 | 12.9 |
| Of which unemployment benefits | 0.4 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Other | 4.3 | 4.5 | 4.1 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.4 |
| Other current transfers | 2.3 | 2.6 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| Capital expenditures 3/ | 2.7 | 3.1 | 3.3 | 3.9 | 3.2 | 3.2 | 3.2 | 3.2 | 3.1 |
| Capital transfers 4/ | 1.4 | 1.2 | 1.3 | 3.8 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| General government balance (excl. transfer of pension assets) | -3.6 | -4.6 | -4.5 | -7.8 | -3.3 | -3.0 | -2.6 | -2.2 | -1.9 |
| Transfer of assets from the 2nd to the 1st pillar of the pension system 5/ | 0.0 | 0.1 | 0.2 | 10.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| General government balance | -3.6 | -4.5 | -4.3 | 2.3 | -3.3 | -3.0 | -2.6 | -2.2 | -1.9 |
| Primary balance | 0.5 | 0.1 | -0.1 | 6.2 | 0.7 | 0.9 | 1.4 | 1.8 | 2.0 |
| Convergence program overall balance | .. | .. | -4.2 | 2.0 | -2.5 | -2.2 | -1.9 | -1.5 | .. |
| Gap to convergence program | .. | .. | 0.1 | -0.3 | 0.8 | 0.8 | 0.7 | 0.7 | .. |
| Memorandum items: | | | | | | | | | |
| Revenues including pension asset transfer | 45.2 | 46.1 | 44.6 | 52.5 | 42.4 | 41.6 | 41.8 | 42.0 | 42.2 |
| Primary expenditure 5/ | 44.7 | 46.0 | 44.7 | 46.2 | 41.7 | 40.6 | 40.4 | 40.2 | 40.2 |
| Output gap (in percent of potential GDP) | 3.4 | -3.9 | -3.5 | -2.3 | -1.7 | -1.0 | -0.4 | 0.0 | 0.0 |
| Cyclically-adjusted overall balance (CAB, in percent of potential GDP) | -5.3 | -2.6 | -3.1 | 3.2 | -2.5 | -2.6 | -2.4 | -2.2 | -1.9 |
| Change in CAB | 1.3 | 2.7 | -0.5 | 6.3 | -5.7 | 0.0 | 0.2 | 0.2 | 0.3 |
| One-off items (net) | -0.3 | 0.3 | 1.2 | 7.7 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Structural balance (in percent of potential GDP) | -5.1 | -2.9 | -4.3 | -4.5 | -3.6 | -2.6 | -2.4 | -2.2 | -1.9 |
| Change in the structural balance | 0.6 | 2.2 | -1.4 | -0.2 | 0.9 | 1.0 | 0.2 | 0.2 | 0.3 |
| Primary structural balance (in percent of potential GDP) | -0.8 | 1.5 | -0.3 | -0.7 | 0.3 | 1.4 | 1.6 | 1.8 | 2.0 |
| Change in the primary structural balance 5/ | 0.6 | 2.3 | -1.8 | -0.4 | 1.0 | 1.1 | 0.2 | 0.2 | 0.2 |
| Targeted impact of February 2011 structural fiscal program 6/ | .. | .. | .. | .. | 1.8 | 2.8 | 2.8 | 2.7 | 2.5 |
| Revenues | .. | .. | .. | .. | 0.3 | 0.7 | 0.7 | 0.6 | 0.6 |
| Expenditure | .. | .. | .. | .. | 1.5 | 2.1 | 2.1 | 2.0 | 1.9 |
| Gross public debt | 72.3 | 78.4 | 80.2 | 75.8 | 74.3 | 73.2 | 71.4 | 69.5 | 67.7 |
| GDP, in current prices (forint billions, yearly) | 26,754 | 26,054 | 27,120 | 28,540 | 29,963 | 31,741 | 33,742 | 35,780 | 37,814 |
| Real GDP growth (in percent) | 0.8 | -6.7 | 1.2 | 2.6 | 2.5 | 3.0 | 3.2 | 3.1 | 2.8 |
| In nominal terms (HUF billions) | | | | | | | | | |
| Total revenue | 12,086 | 11,980 | 12,031 | 12,085 | 12,704 | 13,198 | 14,095 | 15,029 | 15,963 |
| Of which tax revenues | 10,640 | 10,233 | 10,053 | 10,247 | 10,775 | 11,054 | 11,816 | 12,612 | 13,408 |
| Total expenditure | 13,062 | 13,168 | 13,248 | 14,311 | 13,691 | 14,159 | 14,967 | 15,808 | 16,674 |
| Of which primary expenditure | 11,964 | 11,985 | 12,129 | 13,194 | 12,504 | 12,898 | 13,624 | 14,395 | 15,207 |
| Transfer of assets | 0 | 26 | 64 | 2,885 | 0 | 0 | 0 | 0 | 0 |
| Primary balance | 122 | 20 | -34 | 1,776 | 201 | 301 | 472 | 634 | 756 |
| Overall balance | -976 | -1,162 | -1,153 | 659 | -987 | -961 | -871 | -779 | -711 |

Sources: Hungarian authorities; and IMF staff estimates.

1/ Data are classified following the ESA'95 methodology, as reported to the European Commission.

2/ Including social security contributions.

3/ In 2011 includes HUF 200 bn. of one-off expenditures allocated to the cancellation of PPP projects.

4/ In 2011 includes one-off expenditures estimated at HUF 300 bn. for the consolidation of MAV debt, and also one-off HUF 78 bn. for the consolidation of BKV debt.

5/ For 2012-2014, all non-interest expenditure categories are projected using the potential GDP projected growth rate.

6/ The projected revenue and expenditure impacts are as reported by the authorities for 2012 and 2013. Starting in 2014 the impact of the revenue measures is calculated according to the projected evolution of the corresponding tax bases, and the evolution of expenditures according to the growth of potential GDP.

Table 12. Hungary: Indicators of Fund Credit, 2008–16
(SDR millions)

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|-------|-------|-------|-------|-------|-------|------|-------|-------|
| Existing and prospective Fund credit | | | | | | | | | |
| Disbursement | 4,215 | 3,422 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stock 1/ | 4,215 | 7,637 | 7,637 | 7,637 | 4,417 | 598 | 0 | (0) | (0) |
| Obligations | 0 | 148 | 186 | 186 | 3,384 | 3,878 | 603 | 0 | 0 |
| Repurchase | 0 | 0 | 0 | 0 | 3,220 | 3,819 | 598 | 0 | 0 |
| Charges | 0 | 148 | 186 | 186 | 164 | 59 | 5 | 0 | 0 |
| Stock of existing and prospective Fund credit | | | | | | | | | |
| In percent of quota | 405.9 | 735.5 | 735.5 | 735.5 | 425.3 | 57.6 | 0.0 | (0.0) | (0.0) |
| In percent of GDP | 4.3 | 9.1 | 9.0 | 8.6 | 4.8 | 0.6 | 0.0 | (0.0) | (0.0) |
| In percent of exports of goods and services | 5.2 | 11.8 | 10.4 | 9.3 | 4.9 | 0.6 | 0.0 | (0.0) | (0.0) |
| In percent of gross reserves | 18.8 | 27.6 | 26.2 | 22.7 | 12.9 | 1.8 | 0.0 | (0.0) | (0.0) |
| Obligations to the Fund from existing and prospective Fund arrangements | | | | | | | | | |
| In percent of quota | 0.0 | 14.2 | 17.9 | 17.9 | 325.9 | 373.4 | 58.1 | 0.0 | 0.0 |
| In percent of GDP | 0.0 | 0.2 | 0.2 | 0.2 | 3.7 | 4.0 | 0.6 | 0.0 | 0.0 |
| In percent of exports of goods and services | 0.0 | 0.2 | 0.3 | 0.2 | 3.7 | 3.9 | 0.6 | 0.0 | 0.0 |
| In percent of gross reserves | 0.0 | 0.5 | 0.6 | 0.6 | 9.9 | 11.4 | 1.7 | 0.0 | 0.0 |

Source: IMF staff estimates.

1/ End of period. Calculated based on proposed extension and rephasing of purchases.

Appendix Table 1. Hungary: Public Sector Debt Sustainability Framework, 2006-16
(In percent of GDP, unless otherwise indicated)

| | Actual | | | | | | | | | | | Debt-stabilizing primary balance 9/ 0.3 |
|--|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Baseline: Public sector debt 1/ | 65.8 | 66.1 | 72.3 | 78.4 | 80.2 | 75.8 | 74.3 | 73.2 | 71.4 | 69.5 | 67.7 | |
| o/w foreign-currency denominated | 16.1 | 17.3 | 26.1 | 33.4 | 33.6 | 32.3 | 29.7 | 27.4 | 25.1 | 23.6 | 22.8 | |
| Change in public sector debt | 4.0 | 0.3 | 6.2 | 6.1 | 1.8 | -4.4 | -1.5 | -1.1 | -1.8 | -1.9 | -1.9 | |
| Identified debt-creating flows (4+7+12) | 5.6 | -1.9 | -1.6 | 8.6 | 1.4 | 3.8 | -0.3 | -1.1 | -1.8 | -1.9 | -1.9 | |
| Primary deficit 10/ | 5.4 | 0.9 | -0.5 | 0.0 | 0.4 | 3.9 | -0.7 | -0.9 | -1.4 | -1.8 | -2.0 | |
| Revenue and grants 10/ | 42.7 | 45.0 | 45.2 | 46.0 | 44.4 | 42.3 | 42.4 | 41.6 | 41.8 | 42.0 | 42.2 | |
| Primary (noninterest) expenditure | 48.1 | 45.9 | 44.7 | 46.0 | 44.7 | 46.2 | 41.7 | 40.6 | 40.4 | 40.2 | 40.2 | |
| Automatic debt dynamics 2/ | 2.1 | -1.7 | -1.1 | 8.6 | 1.0 | -0.1 | 0.4 | -0.2 | -0.4 | -0.1 | 0.1 | |
| Contribution from interest rate/growth differential 3/ | -0.5 | -0.1 | 0.6 | 6.5 | 1.0 | -0.1 | 0.4 | -0.2 | -0.4 | -0.1 | 0.1 | |
| Of which contribution from real interest rate | 1.5 | 0.4 | 1.1 | 1.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.0 | 2.0 | |
| Of which contribution from real GDP growth | -2.1 | -0.5 | -0.5 | 5.0 | -0.9 | -2.0 | -1.8 | -2.1 | -2.2 | -2.1 | -1.9 | |
| Contribution from exchange rate depreciation 4/ | 2.6 | -1.6 | -1.7 | 2.1 | 5.0 | ... | ... | ... | ... | ... | ... | |
| Other identified debt-creating flows | -1.8 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Privatization receipts (negative) | -1.8 | -1.2 | 0.0 | 0.0 | 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/ | -1.7 | 2.2 | 7.8 | -2.5 | 0.4 | -8.2 | -1.2 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Public sector debt-to-revenue ratio 1/ | 154.1 | 146.9 | 160.1 | 170.5 | 180.8 | 179.1 | 175.3 | 176.0 | 171.0 | 165.6 | 160.3 | |
| Gross financing need 6/ | 24.9 | 19.1 | 17.1 | 18.4 | 18.0 | 16.4 | 12.5 | 18.6 | 17.0 | 14.4 | 14.9 | |
| in billions of U.S. dollars | 28.1 | 26.4 | 26.8 | 23.8 | 23.4 | 22.7 | 18.0 | 28.3 | 27.2 | 24.3 | 26.3 | |
| Scenario with key variables at their historical averages 7/ | | | | | | 75.8 | 76.7 | 78.8 | 80.8 | 82.8 | 84.8 | -1.8 |
| Scenario with no policy change (constant primary balance) in 2010-2016 | | | | | | 75.8 | 78.9 | 82.6 | 86.1 | 89.9 | 94.0 | 0.4 |
| Key Macroeconomic and Fiscal Assumptions Underlying Baseline | | | | | | | | | | | | |
| Real GDP growth (in percent) | 3.6 | 0.8 | 0.8 | -6.7 | 1.2 | 2.6 | 2.5 | 3.0 | 3.2 | 3.1 | 2.8 | |
| Average nominal interest rate on public debt (in percent) 8/ | 6.9 | 6.6 | 6.6 | 6.1 | 5.5 | 5.1 | 5.5 | 5.7 | 5.8 | 5.9 | 5.9 | |
| Average real interest rate (nominal rate minus change in GDP deflator, in percent) | 2.8 | 0.7 | 1.8 | 1.7 | 2.6 | 2.6 | 3.0 | 2.8 | 2.8 | 3.0 | 3.1 | |
| Nominal appreciation (increase in US dollar value of local currency, in percent) | -15.6 | 11.5 | 11.0 | -7.0 | -13.2 | ... | ... | ... | ... | ... | ... | |
| Inflation rate (GDP deflator, in percent) | 4.1 | 5.9 | 4.8 | 4.4 | 2.9 | 2.6 | 2.5 | 2.9 | 3.0 | 2.8 | 2.8 | |
| Growth of real primary spending (deflated by GDP deflator, in percent) | 8.4 | -3.8 | -1.8 | -4.0 | -1.6 | 6.0 | -7.5 | 0.3 | 2.6 | 2.7 | 2.8 | |
| Primary deficit 10/ | 5.4 | 0.9 | -0.5 | 0.0 | 0.4 | 3.9 | -0.7 | -0.9 | -1.4 | -1.8 | -2.0 | |
| Memorandum item | | | | | | | | | | | | |
| Growth of real public debt | 11.1 | 0.6 | 4.0 | 0.0 | 2.2 | -4.2 | -0.1 | 1.3 | 0.7 | 0.2 | -0.1 | |

1/ General government gross debt.

2/ Derived as $[(r - \pi(1+g) - g + \alpha\epsilon(1+\pi)] / (1+g+\pi+g\pi)$ 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 $\alpha\epsilon(1+\pi)$.

5/ For projections, this line includes exchange rate changes. The large residual in 2011 is explained by the transfer of private pension assets to the public sector.

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.

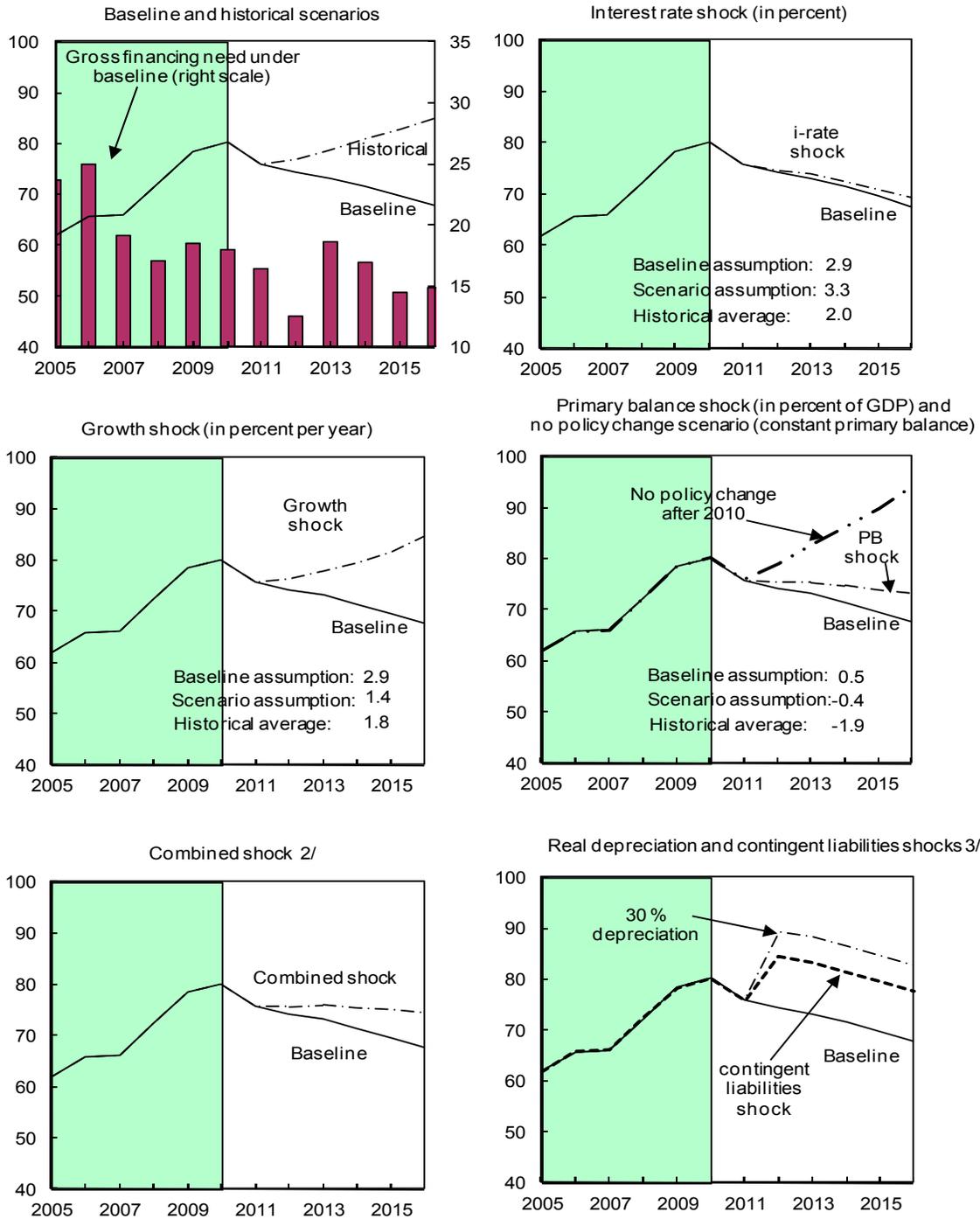
7/ The key variables include real GDP growth; real interest rate; and primary balance in percent of GDP.

8/ Derived as nominal interest expenditure divided by previous period debt stock.

9/ 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.

10/ Excludes revenues from the transfer of pension assets.

Appendix Figure 1. 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).

Appendix Table 2. Hungary: External Debt Sustainability Framework, 2006-16
(In percent of GDP, unless otherwise indicated) 1/

| | Actual | | | | | Projections | | | | | | Debt-stabilizing non-interest current account 7/ -4.9 |
|--|--------|-------|-------|-------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Baseline: External debt | 96.5 | 103.2 | 116.0 | 146.6 | 139.8 | 139.0 | 131.0 | 122.8 | 117.7 | 113.2 | 109.4 | |
| Change in external debt | 8.8 | 6.7 | 12.8 | 30.6 | -6.8 | -0.8 | -8.0 | -8.2 | -5.1 | -4.5 | -3.8 | |
| Identified external debt-creating flows (4+8+9) | 3.2 | 1.9 | 0.5 | 13.2 | -11.1 | -7.1 | -7.7 | -7.8 | -6.3 | -5.1 | -4.1 | |
| Current account deficit, excluding interest payments | 4.4 | 3.2 | 1.9 | -5.7 | -7.0 | -7.9 | -7.5 | -5.8 | -4.1 | -2.9 | -2.2 | |
| Deficit in balance of goods and services | 1.4 | -0.9 | -0.4 | -5.1 | -7.2 | -7.8 | -9.0 | -7.3 | -5.8 | -5.0 | -4.5 | |
| Exports | 77.1 | 80.3 | 81.3 | 77.2 | 86.6 | 92.9 | 98.0 | 101.3 | 104.4 | 108.0 | 112.3 | |
| Imports | 78.5 | 79.4 | 80.9 | 72.1 | 79.3 | 85.0 | 89.0 | 94.0 | 98.6 | 103.0 | 107.7 | |
| Net non-debt creating capital inflows (negative) 2/ | -2.4 | 4.6 | -1.3 | -0.6 | -1.8 | -2.0 | -2.9 | -3.8 | -3.9 | -3.8 | -3.7 | |
| Net foreign direct investment, equity | 3.4 | 0.9 | 3.6 | 0.7 | 2.4 | 2.0 | 2.4 | 3.3 | 3.4 | 3.4 | 3.3 | |
| Net portfolio investment, equity | -0.9 | -5.5 | -2.3 | -0.1 | -0.6 | 0.0 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | |
| Automatic debt dynamics 3/ | 1.3 | -5.8 | -0.2 | 19.5 | -2.3 | 2.7 | 2.6 | 1.9 | 1.6 | 1.6 | 1.8 | |
| Contribution from nominal interest rate | 3.5 | 3.7 | 5.4 | 5.3 | 4.9 | 6.2 | 5.9 | 5.6 | 5.4 | 5.1 | 4.8 | |
| Contribution from real GDP growth | -2.9 | -0.7 | -0.8 | 8.9 | -1.7 | -3.5 | -3.3 | -3.7 | -3.7 | -3.4 | -3.0 | |
| Contribution from price and exchange rate changes 4/ | 0.6 | -8.9 | -4.7 | 5.3 | -5.5 | ... | ... | ... | ... | ... | ... | |
| Residual, incl. change in gross foreign assets (2-3) 5/ | 5.6 | 4.7 | 12.3 | 17.4 | 4.4 | 6.3 | -0.3 | -0.4 | 1.2 | 0.6 | 0.3 | |
| External debt-to-exports ratio (in percent) | 125.2 | 128.5 | 142.7 | 189.9 | 161.5 | 149.7 | 133.7 | 121.3 | 112.8 | 104.9 | 97.5 | |
| Gross external financing need (in billions of euros) 6/ | 28.7 | 30.9 | 35.7 | 34.4 | 37.6 | 42.7 | 45.1 | 48.5 | 54.0 | 51.7 | 55.9 | |
| in percent of GDP | 32.0 | 30.6 | 33.5 | 37.0 | 38.4 | 42.3 | 42.5 | 43.1 | 45.2 | 40.8 | 41.7 | |
| Scenario with key variables at their historical averages 7/ | | | | | | 139.0 | 136.9 | 135.1 | 134.6 | 133.2 | 131.4 | -6.7 |
| Key Macroeconomic Assumptions Underlying Baseline 8/ | | | | | | | | | | | | |
| Real GDP growth (in percent) | 3.3 | 0.8 | 0.8 | -6.7 | 1.2 | 2.6 | 2.5 | 3.0 | 3.2 | 3.1 | 2.8 | |
| GDP deflator in euros (change in percent) | -1.9 | 11.3 | 4.8 | -6.5 | 4.2 | 0.6 | 2.5 | 2.9 | 3.0 | 2.8 | 2.8 | |
| Nominal external interest rate (in percent) | 4.1 | 4.3 | 5.5 | 4.0 | 3.5 | 4.6 | 4.5 | 4.5 | 4.6 | 4.6 | 4.5 | |
| Growth of exports (euro terms, in percent) | 15.4 | 16.9 | 6.9 | -17.2 | 18.2 | 10.7 | 10.8 | 9.5 | 9.6 | 9.7 | 9.9 | |
| Growth of imports (euro terms, in percent) | 14.7 | 13.6 | 7.7 | -22.3 | 16.0 | 10.6 | 9.9 | 11.9 | 11.6 | 10.7 | 10.5 | |
| Current account balance, excluding interest payments | -4.4 | -3.2 | -1.9 | 5.7 | 7.0 | 7.9 | 7.5 | 5.8 | 4.1 | 2.9 | 2.2 | |
| Net non-debt creating capital inflows | 2.4 | -4.6 | 1.3 | 0.6 | 1.8 | 2.0 | 2.9 | 3.8 | 3.9 | 3.8 | 3.7 | |

1/ Excluding Special Purpose Entities. Including inter-company loans and nonresidents' holdings of forint-denominated assets.

2/ Includes EU capital transfers.

3/ Derived as $[r - g - \rho(1+g) + \epsilon\alpha(1+r)] / (1+g+\rho+g\rho)$ 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.

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

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

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

7/ 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.

8/ 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.