

IIF RESEARCH NOTE

Hungary: Bank Tax Unlikely to Close Gap from Deficit Target

July 19, 2010

- To help offset above-target spending and pay for corporate income tax cuts for small firms, the government has proposed a special financial institution tax intended to collect 0.8 percent of GDP a year for as long as three years
- Larger vis-à-vis bank assets, capital and GDP than levies proposed elsewhere, the bank tax looks set to slow real GDP growth by 0.5 percentage points each year it is in effect, weakening other taxes and worsening already problematic debt dynamics
- Losses in other taxes and higher interest costs as banks scale back holdings of government securities look likely to offset two-thirds or more of the proceeds generated by the bank tax

In late May, the Hungarian government announced plans to enact a temporary tax on financial institutions. Legislation proposed to the parliament on July 2 covering tax measures the government intends to implement this year include a special financial institutions tax due in September and intended to secure additional revenues of some Ft200 billion (or 0.8 percent of GDP). Government officials have indicated that similar levies will be set for 2011 and perhaps for 2012, although these are still subject to negotiation. The government asserts that it needs to impose the financial institution tax in order to narrow the general government deficit to the 3.8 percent of GDP this year and the 2.9 percent of GDP next year called for by the European Union and targeted under the current IMF program.

Levies in the July 2 legislation are set at 0.45 percent of assets for commercial banks and 0.028 percent for fund managers, 5.2 percent of net premium revenues for insurers and 5.5-6 percent of net revenues for other financial firms. The portion of the tax to be paid by commercial banks would amount to roughly Ft130 billion, in addition to a Ft13 billion special levy already included in the 2010 budget. This would be equivalent to 0.5 percent of GDP, well in excess of receipts planned (as a share of GDP) from bank taxes proposed in Austria, Germany, France and the UK (Table 1). Unlike in Hungary, however, each of these other governments has had to provide capital injections or otherwise intervene failed institutions since the onset of the global financial crisis in 2008.

The decision to impose the tax has already drawn widespread criticism not only from the industry, but also from other official institutions. Most of this criticism has been based on the negative macroeconomic effects of so large a tax relative to the size of the economy and bank profits. The rate-setting council of the central bank, for example, commented: "(t)he amount the Government aims to collect from domestic financial intermediaries by means of a special bank tax may impair the ability of the banking sector to attract capital and its capacity to lend, which in turn may result in significant output loss in the short and long term.

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The government announced a special tax on financial institutions intended to secure 0.8 percent of GDP in additional revenues

Table 1		
Propose	d Special	Banking
Taxes		
billion		
Country	Estimated Revenues	% GDP
Hungary	Ft130	0.5
Austria	€0.5	0.3
U.K.	£2.5	0.2
Germany	€1.0	0.08
France	€0.7	0.07
U.S.	\$10	0.07

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The drain on bank earnings through the planned levy may undermine the ability of the domestic banking sector to collect funds and, ultimately, the stability of the Hungarian economy."¹ Payments of the tax by banks, indeed, would equal fully one-half of the aggregated pretax profit earned by Hungarian banks in 2009.

Assessing the impact of the specific tax measures included in the July 2 legislation, the independent fiscal council reported that the indirect effects of the proposed special tax on financial institutions would likely reduce other tax revenues by amounts rising from 0.1 percent of GDP this year to an average of 0.3 percent of GDP a year in 2011 and 2012 (Chart 1).² These were projected to result from reductions in disposable household income, consumption and private investment resulting from wider loan-deposit spreads, reduced credit demand and increases in insurance premia and financial services fees. Real GDP growth was projected to decrease by 0.4 percent a year in 2011 and 2012 from earlier baseline projections as a result of the measures, reflecting reductions in consumption averaging 0.5 percent a year and in investment averaging 0.2 percent a year.

Together with other tax measures, including cuts in corporate incomes taxes resulting from raising the pretax profit threshold for eligibility for the preferential 10 percent rate (versus the 19 percent standard rate) to Ft500 million (about €1.8 million at current exchange rates) from Ft50 million, the council projected that the July 2 tax legislation would worsen the noninterest balance of the central government by 0.7-0.8 percent a year in the two years following the imposition of the special financial institution tax. In other words, the revenue generated by the tax (in a given year) would be fully offset in the following year by revenue lost due to the corporate income tax cut and the weakening of consumption and investment as the cost of the financial institution tax is passed on to financial services customers.

Indeed, focusing more closely on the effects of the special bank tax on economic activity in general and other government revenues in particular requires assessing whether the effects of the tax are passed along fully to bank customers or not. In the former instance, the effects would be evident mainly in higher lending rates (assuming funding costs remain

¹ Press release on the Monetary Council's meeting of July 5, 2010, Magyar Nemzeti Bank.





The independent fiscal council reports that real GDP growth will decrease by 0.4-0.5 percent a year as a result of the financial institutions tax

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unchanged, being determined mainly by broader macroeconomic and financial factors including foreign interest rates, domestic policy interest rates and risk premia applied to the country, the exchange rate and individual banks). In the latter case, the inability to pass the tax along to customers would force banks to absorb the cost via profits, retained earnings and capital. In this case, the effects would be evident mainly in the reduced capacity of banks to lend (assuming current capital levels are consistent with equilibrium levels required by owners, regulators and capital markets). The reduced capacity to lend may in turn, as suggested by the rate-setting council of the central bank, impair the ability of the banking sector to attract capital.

With a view to estimating the size of these effects, a review of key banking data and some recent literature on credit demand is required. Data from the Hungarian Financial Supervisory Authority (PSZAF) report suggest that lending margins would need to widen by roughly 75 basis points to spread the cost of Ft130 billion over the Ft17.9 trillion of loans outstanding at the end of March 2010. Utilizing an estimate of the price elasticity of credit demand found in Hollo,³ the assumption can be made that the effect of an increase in lending rates of this magnitude would result in a demand-driven contraction of credit equivalent to 1.3 percent. An estimate by the IIF staff of the relation between growth in credit and growth in real GDP (see Text Box) suggests that the direct effects of contraction of credit demand tax revenues to weaken by 0.1 percent of GDP (Chart 2). The drop in credit demand alone would therefore offset one-fifth of the revenue gained from the special bank tax, not taking into account other indirect or second-round effects.

The negative effects of the tax on banks' capacity to lend, and therefore on the supply of credit, are likely to be considerably larger than those on credit demand. Data from PSZAF report that banks in Hungary held Ft2.2 trillion of their own funds for capital adequacy purposes at the end of March. How individual banks will respond to the new tax will depend to a large extent on their capital position. The banks with capital in excess of that required by regulators should have some, albeit limited, scope, to increase lending. Banks that are undercapitalized and find it difficult to raise additional capital will need to deleverage through a reduction of assets with higher risk weights. With a capital adequacy ratio of just under 13 percent at the end of last year, however, and given the new requirements posed by Basel 3, the capital of most Hungarian banks appears to be just consistent with that required by regulators. In this case, a reduction of profits, retained earnings and capital equal to Ft130 billion, or 5.8 percent, would necessitate an equivalent percentage reduction in riskweighted assets.⁴ Using the same estimate for the relation between credit and activity, real GDP would then decline by as much as 0.9 percent from what it otherwise would have been. Revenues from other taxes than the special bank tax would decrease by 0.4 percent of GDP, or more than four-fifths of the revenue gained initially from the special bank tax, again not taking into account other indirect effects.

If banks were to pass on the costs of the tax to consumers, reduced credit demand would cut real GDP growth by 0.2 percent and tax revenues by 0.1 percent of GDP

The negative effects on banks' ability to lend and therefore the supply of credit could be much larger. Real GDP growth could be cut, as a result, by as much as 0.9 percent a year

³ Dániel Holló, "Estimating price elasticities on the Hungarian consumer lending and deposit markets: demand effects and its possible consequences", <u>Focus on European Economic Integration</u>, Q1/10, Oesterreichische Nationalbank.

⁴ An exception as regards strained capital adequacy could be OTP, the largest bank, which reported an overall capital adequacy ratio of 17.5 percent at the end of March and whose Hungarian core operations then accounted for 42 percent of aggregate bank shareholder equity. Greater pressure on capital adequacy among other banks might still lead to a need for the banking system as a whole to reduce risk-weighted assets by roughly this magnitude.

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Overall fiscal costs would probably be larger still, incorporating second- and third-round effects from the cuts in government spending and increases in other taxes. These would be needed to offset reductions in other tax revenues resulting from the initial contraction in activity caused by diminished credit supply.

In addition, because risk-weighted assets will be difficult to reduce quickly without calling outstanding loans, banks will likely seek to limit tax exposures by reducing their holdings of securities. Sales of government securities holdings, therefore, are likely to cause government bond yields to rise, increasing government interest outlays. By how much is unclear. Spreads over Bunds have widen by roughly 50-75 basis points for maturities of two to five years since plans for the bank tax were announced in early June. Assuming this increase has fully priced in the effect of sales of government securities by banks (offsetting the tax would have required an increase in yields earned by banks of 45 basis points) and is therefore sustained, interest payments look likely to rise 0.1 percent of GDP annually, other things equal. (This estimate assumes two-thirds of this year's deficit is financed through the issue of forint-denominated bonds and bills, together with the refinancing of forint-denominated bonds and bills, together with the refinancing of forint-denominated debt maturities amounting to around 14 percent of GDP a year.) Adhering to the deficit targets, in turn, would require additional spending cuts or tax increases to offset the higher interest outlays, resulting in some modest further weakening of real GDP and tax revenues.

Whether the costs of the bank tax can be passed along to customers seems likely to determine how severe the negative effects will be. The fiscal council assumes that competitive pressures from lenders abroad will keep banks from passing on the costs of the bank tax to corporate borrowers. Were this the case (and assuming that credit to other financial institutions ultimately supports mainly the provision credit to households via leasing firms and the like), a reasonable estimate would be that at least half the revenues garnered by the special tax on banks would be lost through reductions in receipts of other taxes. Real GDP, however, would be diminished by 0.5-0.6 percent each year the tax is in effect or somewhat more taking into account second-round effects on activity and other adjustment measures needed to assure the fulfillment of fiscal targets. As much as two-thirds of the proceeds of the bank tax would be offset by the indirect effects of the tax, including reductions in receipts of other taxes due to weaker activity and higher interest outlays as banks scale back holdings of government securities.

Taking account of secondround effects, overall costs would be larger than losses in other taxes, including an increase in interest payments due to higher government bond yields as banks scale back holdings of government securities

As much as two-thirds of the proceeds of the bank tax would be offset by the indirect effects of the tax, including reductions in receipts of other taxes and higher interest outlays

(2)

THE RELATION BETWEEN GROWTH IN REAL GDP AND CREDIT VOLUME

In order to gauge the relationship between growth in credit to nongoverment borrowers and growth in real GDP, IIF estimated a real GDP growth (GDP) function with first-order autoregressive errors over the sample period from 2001Q2 to 2010Q1 (Equation 1 and 2). Explanatory variables were limited to four, not including a constant and an autoregressive variable to correct for any serially correlated errors. The four explanatory variables comprised real GDP growth in the Eurozone (EZ), real credit to nongovernment borrowers (RC) (measured by cumulating transactions to adjust for the effects of exchange rate movements on credit denominated in foreign exchange, then deflating by the consumer prices index), the general government deficit less interest payments (NIB) and the real effective exchange rate (RER), as measured by the IIF according to relative consumer prices vis-à-vis the 10 largest nonenergy trading partners. All variables were summed or averaged over the preceding four quarters, current quarter inclusive. None of the explanatory variable were lagged, except where needed to calculate first differences or growth rates.

$$\Delta GDP_{t} = \mu_{0} + \mu_{1} \Delta EZ_{t} + \mu_{2} \Delta RC_{t} + \mu_{3} \Delta NIB_{t} + \mu_{4} \Delta RER_{t} + u_{t}$$
(1)

$$u_t = \Omega u_{t-1} + \Theta$$

where

$$\begin{split} \Delta GDP_t &: \text{logarithmic difference of the sum of } (GDP_t + GDP_{t-1} + GDP_{t-2} + GDP_{t-3}) \\ \Delta EZ_t &: \text{logarithmic difference of the sum of } (EZ_t + EZ_{t-1} + EZ_{t-2} + EZ_{t-3}) \\ \Delta RC_t &: \text{logarithmic difference of the average of } (RC_t + RC_{t-1} + RC_{t-2} + RCR_{t-3})/4 \end{split}$$

- ΔNIB_t :absolute difference of NIB_t-NIB_{t-4}
- $\Delta RER_t \quad : \text{logarithmic difference of the average of } (RER_t + RER_{t-1} + RER_{t-2} + RER_{t-3})/4$
- ut : error term of Equation 1
- e_t : error term of Equation 2

Estimates of the coefficients of the explanatory variables were all significant at 5 percent significance level. The sole exception was the estimate of the coefficient for the real effective exchange rate, which was significant at a confidence interval of 10 percent but which was positive (appreciation correlating with stronger growth) rather than negative, as expected. Robustness was tested by omitting explanatory variables across different specifications of Equation 1. Alternative specifications gave similar, but slightly smaller estimates of the coefficient for credit growth at weaker confidence intervals. Omitted variable bias was tested via the Ramsey RESET test, which rejected the null hypothesis that the equation was incorrectly specified.

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Estimation Results					
Method: Ordinary Least	Square	S			
Sample: 2001Q2—2010	Q1				
Dependent Variable					
ΔGDP_{t}					
Explanatory Variables	Co	efficient	Std Error	t-statistic	Probability
Constant	μ_0	-0.01	0.00	-0.71	0.48
ΔEZ_t	μ_1	1.03	0.19	5.55	0.00
ΔRC_t	$\boldsymbol{\mu}_2$	0.15	0.05	2.69	0.01
ΔNIB_t	μ_3	-0.07	0.03	-2.13	0.04
ΔRER_t	μ_4	0.08	0.04	1.88	0.07
AR(1)	Ω	0.78	0.12	6.39	0.00
Goodness of fit, mod	del spe	cification ar	nd residual dia	gnostics test :	statistics
R-squared		0.95	R	ESET(1)1	3.00
Adjusted R-squared	0.94 LM(2) ²		1.12		
/ lajuotoa / r oquaroa			BDC3		
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