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Hungary: Selected Issues

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HUNGARY

Selected Issues

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Approved by the European Department

April 23, 2004

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I. External Competitiveness in Hungary: A Brief Review of Indicators [1]

A. Introduction

1. **Concerns about the competitiveness of the Hungarian economy emerged in recent years, in the context of rapidly increasing real wages, exchange rate appreciation, and a large current account deficit.** Year-average real wages for the whole economy increased by about 10 and 13 percent in 2001 and 2002, respectively. This reflected the huge rises in the minimum wage in those years (over 90 percent), the high salary increases granted to the public sector in 2002 (50 percent for most employees), and the associated spillover into the private sector. Also during 2001–02, the forint appreciated sharply against the euro, raising concern about Hungary's exports inside and outside the euro area, with the euro having started to strengthen against the U.S. dollar. While the current account deficit expanded from 6.2 percent of GDP in 2001 to 8.9 percent in 2003, net foreign direct investment (FDI) fell sharply, further raising concerns about the impact of deteriorating competitiveness on the current account and its sustainability in the medium term.[2]

2. **That being said, the deterioration of competitiveness appears to have reversed during 2003.** The forint depreciated by about 11 percent against the euro. Moderating wage growth in manufacturing, alongside steady improvements in productivity in that sector, further contributed to competitiveness gains. Despite the slow recovery of the external demand (especially from EU countries), export growth increased sharply in the second half of the year.

3. **As no comprehensive method to assess competitiveness is available, this paper examines recent developments in a range of indicators.** These include regional comparisons of wage and unit labor cost (ULC) developments, and standard indicators based on price and cost-based measures of the real effective exchange rate (REER). In addition, the paper discusses actual export performance and market shares, profitability indicators, and business survey results. The equilibrium exchange rate is also estimated. Recognizing that assessing competitiveness and the equilibrium exchange rate is fraught with difficulties, Appendix I highlights some shortcomings of individual indicators.

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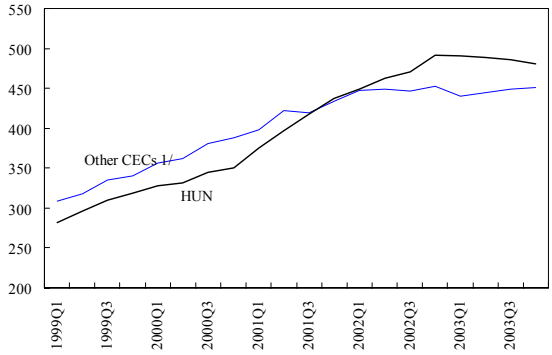
[1] Prepared by Stefania Fabrizio.

[2] These figures incorporate the new methodology, introduced at end-March 2004, for calculating FDI-related income and include reinvested earnings.

B. Wages and Unit Labor Costs—A Regional Comparison

4. **On balance, gross wages in Hungary do not seem seriously out of line with regional competitors.** In manufacturing, they were lower than the average for the Czech Republic, Poland, and Slovakia (CECs) until mid-2001 (Figure 1).[3] Thereafter, Hungary wage growth increased faster than in the other CECs, before moderating in 2003. Of course, comparing wage levels across countries has problems because of different coverage, survey methods, and normal statistical error.[4] That being said, the data suggest wages were only modestly higher than the average end-2003.

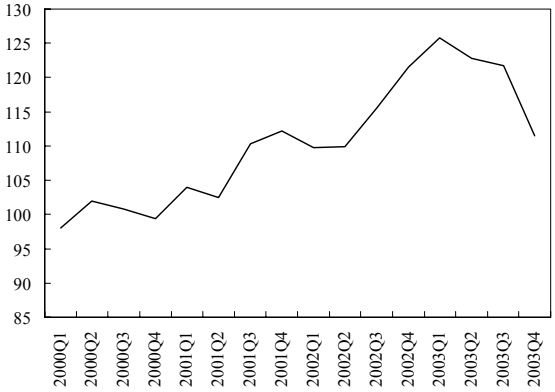
Figure 1. Hungary and other CECs: Gross Wages in Manufacturing, 1999-2003
(In euros, seasonally adjusted)



Sources: Country authorities; and Fund staff calculations.
1/ Unweighted average for the Czech Republic, Poland, and the Slovak Republic.

5. **Taking into account differences in labor productivity, the conclusion that wages do not seem seriously out of line still seems to hold.** As shown in Figure 2, although ULCs in Hungary relative to the other three CECs increased in 2001 and 2002, the decline in 2003 brought relative ULCs back to the level in the second half of 2001. The Magyar Nemzeti Bank, (MNB) has noted that wage moderation and increased productivity growth in Hungary, reflecting the pick up in manufacturing activity, alongside a decreasing number of employees, contributed to the decline in Hungarian ULCs.[5]

Figure 2. Hungary: Relative Unit Labor Costs, 2000-2003 1/



Sources: Country authorities; and Fund staff calculations.
1/ Hungary's ULCs relative to the weighted average (export flows in goods from 1997-2001) of the ULCs of the Czech Republic, Poland and Slovakia.

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[3] Slovenia is not included in the analysis because its gross wage and productivity levels, which are much higher than the ones in the other CECs, are thought to distort the comparison.

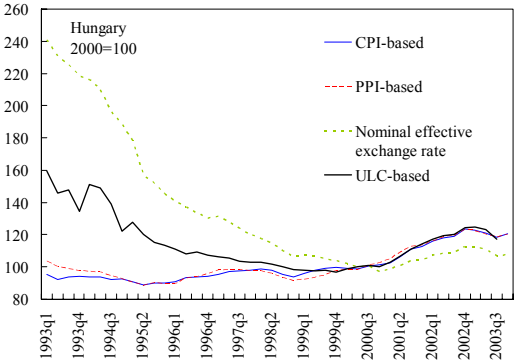
[4] Eurostat has conducted a labor costs survey and tried to calculate monthly labor costs for EU countries and acceding countries on a comparable basis. However, data are available only for 2000. They showed that labor costs in Hungary were about at the same level as in the Czech Republic, much lower than in Poland, and higher than in Slovakia.

[5] *Quarterly Inflation Report,* February 2004.

C. Traditional Effective Exchange Rate Indicators

6. **After depreciating for most of the nineties, the nominal effective exchange rate (NEER) appreciated substantially during 2001–02** (Figure 3). This occurred on the heels of the change in May 2001 in the monetary and exchange rate framework operated by the MNB—with the widening of the exchange rate band as the disinflation effort was stepped up. The nominal appreciation of the currency was, however, only one of the reasons for the appreciation of the price-based real effective exchange rates, which started as early as 1999 and also reflected the positive inflation differential between Hungary and its trading partners.

Figure 3. Hungary: Price- and Cost-based REER, 1993-2003



Sources: Hungarian authorities; and Fund staff calculations.

7. **Part of the appreciation of the CPI- and the PPI-based REERs since 1999 can be attributed to equilibrium effects, which do not necessarily imply a loss in competitiveness**. Estimates of the Balassa-Samuelson effect for different transition countries vary widely. For Hungary, the MNB estimated that historically the Balassa-Samuelson effects were in the range of 1 to 2 percent, suggesting that a significant part of the observed real appreciation of the price-based indicators was due to equilibrium effects. [6]

8. **Nevertheless, the appreciation of the ULC-based REER over the period 2001–02 showed a significant loss in competitiveness, albeit from a comfortable level**.[7] The appreciation of about 20 percent over this period reflected the substantial increases in wages in 2001 and 2002, accompanied by slower productivity growth, as evidenced by the steeper increase of the ULC-based REER compared with the NEER over the same period.

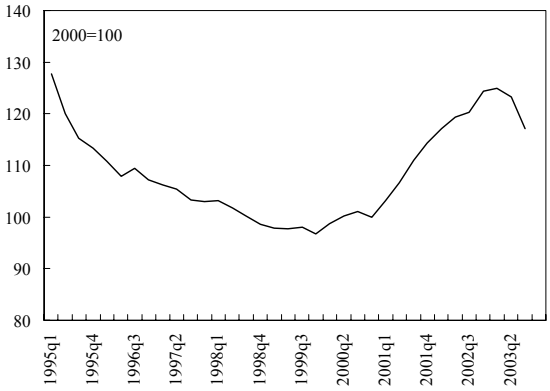
9. **More recent developments in the ULC-based REER suggest a return to a broadly competitive level at end-2003.** A weaker nominal exchange rate, and improved productivity growth in manufacturing somewhat in excess of wage growth, resulted in a depreciation of the ULC-based REER. In the third quarter of 2003, when the exchange rate was at Ft 260 per euro, the ULC-based REER was at about the same level as at end-1995

[6] Kovács (2002).

[7] A 2001 Selected Issues paper examined external competitiveness in earlier years, and based on a range of indicators, concluded that Hungary was highly competitive at end-2000.

(Figure 4). This was a year in which the current account deficit was close to 4 percent of GDP (excluding reinvested earnings) and real export growth was very strong.

Figure 4. Hungary: ULC-Based REER, 1995-2003



Sources: Hungarian authorities; and Fund staff calculations.

10. **To shed some light on the conditions under which Hungary might strengthen or at least maintain its recently regained competitiveness position, the impact of different wage increases on the ULC-based REER is considered.** Three scenarios are presented to quantify the impact of different assumptions on wage increases. The main assumptions are spelled out in Table 1, and Figure 5 shows the results. Under the baseline scenario, wages are assumed to grow by 8 percent in 2004, in line with the nominal gross wage increase for the private sector recommended by the National Interest Reconciliation Council (NIRC).[8]

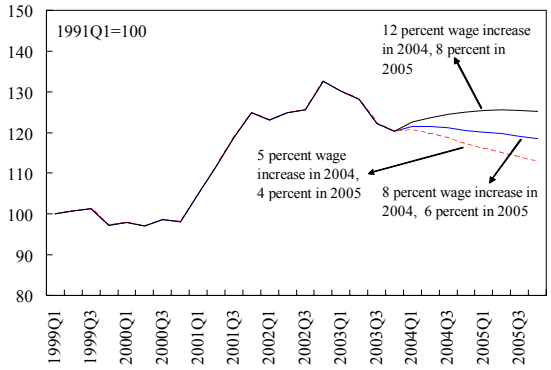
Table 1: Main Assumptions for ULC-based REER Projections

Variables	Assumptions						
Partner countries							
ULCs	ULC growth for 2004 the same as in the previous year, continuing into 2005						
Exchange rates	WEO assumptions						
Hungary		2004			2005		
ULC components:		Scen.1	Scen.2	Scen.3	Scen.1	Scen.2	Scen.3
Wages in manufacturing	Wage growth (percent)	5.0	8.0	12.0	4.0	6.0	8.0
Employment in manufacturing	Employment growth (percent)	0.8	0.8	0.8	1.2	1.2	1.2
Value added in manufacturing	Value added growth (percent)	7.0	7.0	7.0	6.1	6.1	6.1
Exchange rates	Exchange rate vis-à-vis euro	260	260	260	260	260	260

11. **Under the baseline scenario, which also assumes a 6 percent wage increase in 2005, Hungary would show modest gains in competitiveness.** By end-2005, the depreciation in the ULC-based REER would be by approximately 1½ percent compared with its end-2003 value. By comparison, under the more unfavorable scenario, the ULC-based REER would appreciate by 4 percent over this period (but would stabilize if the forint were at about Ft 270 per euro); and would depreciate by more than 6 percent under the more favorable scenario (stabilizing at an exchange rate of about Ft 245 per euro).

[8] The NIRC is a tripartite group representing the government, employers, and employees.

Figure 5. Hungary: ULC-Based Real Effective Exchange Rate, 1999-2005 1/

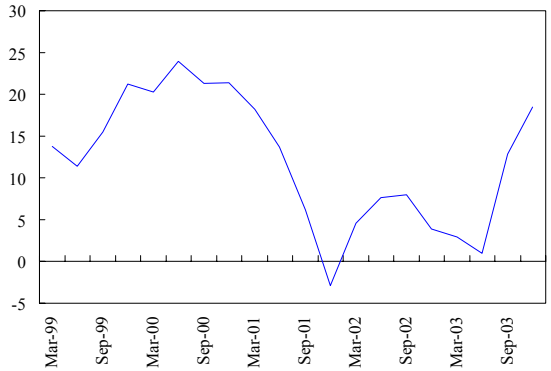


Sources: Hungarian authorities; and Fund staff calculations.
1/ To facilitate estimates and projections of the ULC-based REER, this index was constructed for a subset of partner countries for which ULC data are more readily available. The group of countries, which accounts for the vast majority of Hungarian trade, comprises Austria, Belgium, France, Germany, Italy, Japan, the Netherlands, Switzerland, the United Kingdom, and the United States.

D. Export Performance, Market Share, and Profit Margin Indicators

12. **Actual export performance has been improving**. After increasing at double digits for several years, real export growth started to decline in 2001 (Figure 6). Reflecting lower external demand and the deterioration in competitiveness, export growth was sluggish through mid-2003. In contrast, export growth sharply increased in the second half of 2003, despite the slow recovery of the EU economies (in particular of Germany, Hungary's major trading partner).[9] The pick up in export growth seemed to be helped partly by the capacity of the Hungarian economy to shift activity from more labor intensive industry, such as light manufacturing, to less labor intensive activity, such us machinery assembling and car production (Table 2).

Figure 6. Hungary: Export Volumes, 1999-2003
(Year-on-year growth, in percent)



Sources: Country authorities; and Fund staff calculations.

Table 2. Commodity Pattern of Exports, 2001-03
(In percent of total exports)

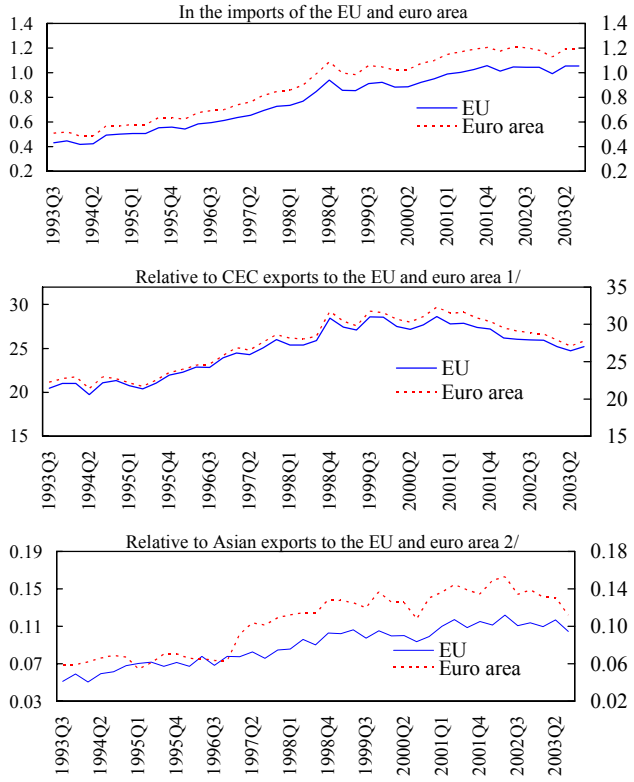
	2001	2002	2003
Food, beverages, and tobacco	7.5	6.8	6.5
Crude materials	2.0	2.0	2.1
Fuels, electric energy	1.9	1.6	1.6
Light manufacturing products	31.0	30.9	28.8
Machinery and transport equipment	57.5	58.7	60.9
Total	100.0	100.0	100.0

Source: Hungarian authorities.

[9] Export growth continued to be strong into 2004. In January, real exports were 18.4 percent above their level in the previous year.

13. **Hungary has been very successful in penetrating the EU market.** Until 2001, the country increased its share at a faster pace than the CECs' average export share in the EU market (Figure 7). The relatively slower pace after that would be consistent with Hungary being in a more advanced stage in the convergence process towards the "natural" export share in the EU market. In fact, as shown by Jakab et al. (2001), Hungary was faster in the integration process than other CECs (Poland and the Czech Republic), approaching its potential trade flows already in 1997. This would help explain the faster pace of the other CECs in penetrating the EU market in more recent years, as they were catching up in the convergence process. The relative slowdown in market penetration may, of course, also have reflected some loss of competitiveness. However, the most recent data show this tendency reversing in the second half of 2003, suggesting competitiveness is again improving. Looking at other competitors in the EU market, Hungary increased its EU export market share much faster than the Asian countries until 2000; afterward its share increased approximately at the same pace.

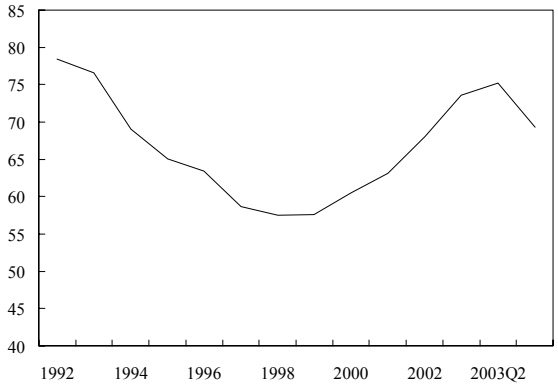
Figure 7. Hungary: Market Shares, 1999-2003
(In percent)



Sources: Direction of Trade Statistics; and Fund staff calculations.
1/ The CECs include the Czech Republic, Hungary, Poland, the Slovak Repubic, and Slovenia.
2/ Includes Bangladesh, Cambodia, China (Mainland, Hong Kong and Macao), India, Indonesia, Korea, Malaysia, Mongolia, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Tuvalu, and Vietnam.

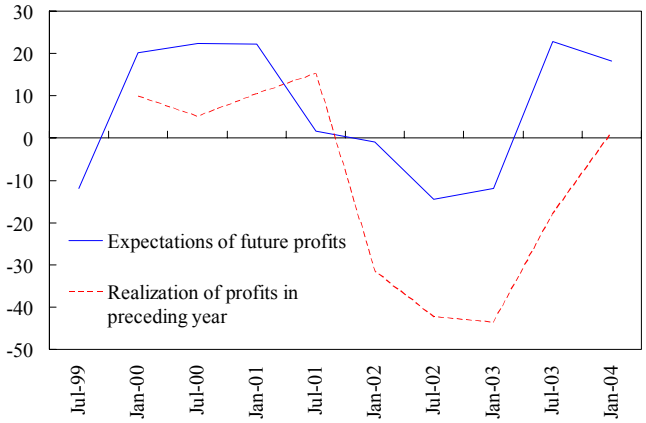
14. **Further evidence of a recent gain in competitiveness in the second half of 2003 comes from the fact that the pick up in exports and the increase in EU market share were accompanied by higher profit margins** (Figure 8). While it is difficult to determine an appropriate benchmark for the level of profitability as proxied by the indicator used in the paper, profitability is clearly getting stronger. That indicator—the ratio of wage costs per employee to value added (in current prices) per person in manufacturing—suggests that, after declining for more than two years, profit shares increased in mid-2003.[10] Moreover, after two years of negative expectations, exporting firms in mid-2003 started to expect a positive change in export profitability (Figure 9), while also indicating that export profitability rose in 2003.[11]

Figure 8. Hungary: Ratio of Wage Costs to Value Added, 1992-2003 1/



Sources: Country authorities; and Fund staff calculations and estimates.
1/ Data for 2003 are estimates.

Figure 9. Hungary: Changes and Expected Changes in Export Profitability, 1999-2004 1/



Source: Business survey "Report on the Business Climate of the Top 1500 Exporting Manufacturing Firms, 2004/1"by TARKI.
1/ Data refer to the balance statistics indicating the difference between the share of 'improving' and the share of 'deteriorating' answers.

[10] Based on the results of a detailed sectoral data analysis by the MNB (*Report on Financial Stability—December 2003*), manufacturing profitability stopped declining already in 2002.

[11] This is based on the results of a periodic business survey among 1500 exporting manufacturing firms conducted in January 2004 by TARKI and sponsored by the Ministry of Finance and the Ministry of Foreign Affairs. The survey is conducted twice a year.

E. Equilibrium Real Effective Exchange Rate

15. **This section reports the estimation results for the equilibrium exchange rate in Hungary, using the CPI-based REER**. The estimation is based on a theoretical framework that incorporates two possible effects of real convergence on the equilibrium exchange rate. The first is the productivity convergence that, through the Balassa-Samuelson effect, would be associated with a real exchange rate appreciation, justified by the income and productivity gaps that Hungary still experiences with respect to the more advanced EU countries. The second is rooted in international and growth economics and relates to capital inflows and external disequilibria. The accumulation of current account deficits translates into an increasing burden of net foreign liabilities, which generate an increasing burden on the external current account that may lead to a disequilibrium that would eventually require an exchange rate adjustment.[12] It is important to highlight that capital inflows, competitiveness gains, and productivity convergence are intertwined. On one hand, the return on capital in low-income countries with good economic prospects is expected to be higher than in mature economies, so that capital inflows are driven by expected productivity gains. On the other end, real productivity increases are the most powerful source of competitiveness gains, so that they would moderate the required exchange rate depreciations to deal with the increasing burden debt. These two fundamentals, which are associated with the internal and external equilibrium of an economy, are used to determine the real exchange rate:

$$REER = \beta_1 nfa + \beta_2 prod$$

where *nfa* represents the net foreign assets position and *prod* represents relative productivity differentials between the country and abroad. Estimation of the equilibrium exchange rate is then based on an unobserved components decomposition in a cointegration framework (the derivation of the model, the econometric framework, the data, and the results are described in Appendix II). The presence of a cointegration relationship is interpreted as evidence of a time-varying equilibrium exchange rate (Appendix III).[13]

16. **The results (Figure 10) suggest that the equilibrium REER appreciated significantly since 1995 and that, after a protracted period of undervaluation, the REER started to be overvalued at end-2000**. Over the sample period, from the first quarter of 1995 to the third quarter of 2003, the equilibrium exchange rate appreciated by almost 30 percent. The determinants of the equilibrium exchange rate suggest that this behavior

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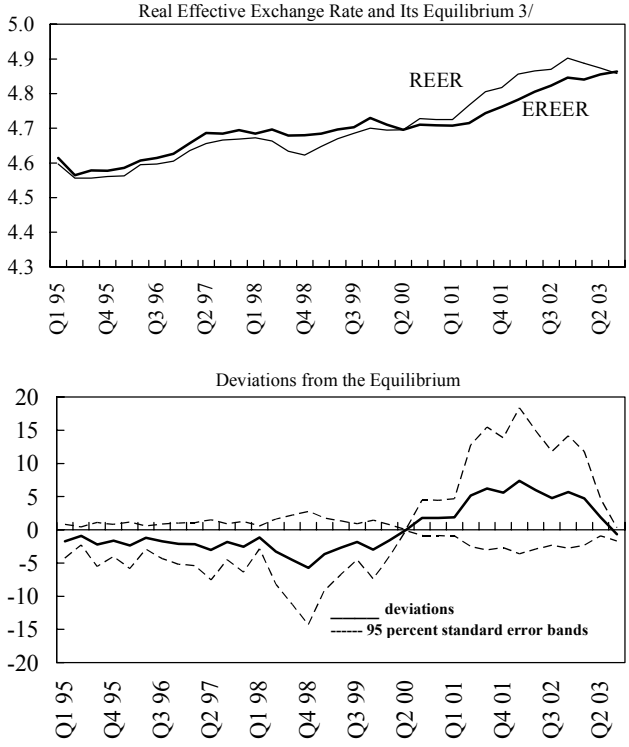
[12] For a discussion of the balance of payments approach to the determination of the equilibrium exchange rate see, for example, Mussa (1984).

[13] The power of cointegration tests is dependent on the length and time span of the time series available for estimation. The length available in the case of Hungary is limited and, therefore, results must be interpreted with caution.

reflected the pattern of productivity in the tradable sector relative to the nontradable one, and the accumulation of net foreign assets. After a protracted period of undervaluation, at the end of 2000, the REER started to appreciate with respect to its equilibrium rate and maintained an overvalued position for more than two years. These results would be in line with the findings of other recent studies of the equilibrium real effective exchange rate, including studies at the MNB, which show an overvaluation in a range of 2 to 10 percent in 2002 (Csajabok (2003) and Alberola (2003), among others).

Figure 10. Hungary: Real Effective Exchange Rate (REER) and Its Equilibrium (EREER), 1995-2003 1/ 2/
(Logarithms)



Sources: Country authorities; and Fund staff calculations.
1/ Seasonally adjusted data.
2/ REER is calculated using data for 74 percent of the partner countries considered in the compilation of the REER published in the IMF *International Financial Statistics.*
3/ An REER above the EREER indicates overvaluation.

17. **After maintaining an overvalued position for more than two years, in the third quarter of 2003 Hungary's REER appeared to be broadly aligned with its equilibrium rate**. Although the results must be interpreted with considerable caution, given the limited availability of data, other statistical weaknesses, and other drawbacks highlighted in Appendix I, they seem to be consistent with the picture that emerges from the other indicators. At the end of 2000, according to the estimates here, the REER started to appreciate and was overvalued for more than two years, reaching a peak of overvaluation of

more than 7 percent in the first quarter of 2002. Subsequently, the misalignments of the REER with respect to its equilibrium became smaller.

F. Concluding Remarks

18. **Hungary's external competitiveness deteriorated significantly in 2001-02**. This is consistent with a range of indicators.

19. **Also drawing on a range of indicators, competitiveness, having improved significantly during 2003, seemed to be approaching a broadly adequate level toward year end.** In this regard, some comfort can be taken from the fact that the deterioration in 2001-02 was from a very comfortable level. Some comfort can also be taken from the improved outlook in the external current account deficit—though this also depends importantly on sustaining fiscal adjustment— and anecdotal evidence of rising FDI (for example, to expand existing production facilities and to use Hungary as a regional center). Estimates of the equilibrium REER, while not without several caveats, suggest the REER may have been close to its equilibrium in third quarter of 2003.

20. **While positive signals are present, an appropriately competitive economy requires sound policies.** Particularly important is wage moderation, with a view to avoiding wage growth out of line with productivity developments. The Government has an important role to play in this connection by showing the importance it attaches to wage moderation through its public sector wage policy—reflecting the need for durable fiscal adjustment over the medium term and as a signal to the rest of the economy. Moreover, with an appropriately competitive economy, Hungary would be in a good position to take advantage of the new trading opportunities that EU enlargement might offer.

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HUNGARY—PROS AND CONS OF COMMONLY–USED INDICATORS OF COMPETITIVENESS

Real exchange rate indicators

1. The **CPI-based** measure is widely available, facilitating comparisons with other countries. It is also a broad-based indicator, including both goods and services. The main drawbacks are that such indices include a large number of nontraded goods and services, and exclude intermediate goods, which are an important component of traded goods; and the representative basket will vary across countries. In transition countries, the CPI can also be significantly affected by price liberalization and adjustments of administered prices.

2. The **PPI-based** measure retains the disadvantage that the basket varies across countries. However, the items in each basket are typically more representative of traded goods, including traded intermediate goods. But the PPI-based measure may not be a good measure of competitiveness as companies can price to market by squeezing profits in the short run.

3. The **ULC-based** measure is often thought to be the most appropriate for use as a competitiveness measure, because labor costs are an important component of production costs. But the measure misses some important aspects of actual production costs; a fall in unit labor costs that results from the substitution of capital for labor, for example, need not necessarily signal an improvement in underlying competitiveness. The measurement of productivity that underlies the ULC-based measure is difficult in practice, especially when used as a basis for cross-country comparisons, and typically highly sensitive to variations in the economic cycle.

4. The main difference between price- and ULC-based REERs stems from the Balassa-Samuelson effects, which should produce steady but sustainable increases in CPI-based REERs, but affect ULC-based REERs for manufacturing, where traded goods weigh heavily, relatively little. The usefulness of REER measures is can be according to their ability to explain actual trade flows. Marsh and Tokarick (1994), for example, find that for a range of advanced countries, trade flows are most closely correlated with ULC-based REER measures.

Profit share indicators

5. A measure of relative profit shares in the tradable-intensive sector of the economy is given by the ratio of wage costs per employee to value added (in current prices) per person in manufacturing. As opposed to the ULC-based REER, this indicator takes into account variations across countries in the price of tradable output (Lipschitz and McDonanld, 1991). However, this measures has some drawbacks. First, relative profit shares in manufacturing are not a good guide to differences in the rate of return on capital if there are significant differences in production technology. Comparison of profit shares between countries at roughly similar stages of development should be more meaningful, although different product mixes can distort level comparisons. Second, the aggregate indicators could hide large differences in profit shares within manufacturing industry.

6. **Macro model-based and/or econometric estimates of equilibrium exchange rates.** These techniques attempt to estimate time-varying equilibrium exchange rates as a function of economic fundamentals. The results from their application to transition countries need to be interpreted with particular caution due to structural changes in the relationships and the limited availability of long data series.

HUNGARY—ESTIMATION OF THE EQUILIBRIUM REAL EXCHANGE RATE

1. The concept of long-run or equilibrium real exchange rate (EREER) has been widely addressed in the literature. One standard and traditionally used method of assessing currency evaluation is the purchasing power parity (PPP) hypothesis. This approach implies a constant equilibrium exchange rate, as it posits that there is an underlying tendency for movements in the nominal exchange rate to offset inflation differentials with country's trading partners, such that deviations from the EREER will be transitory. However, long-run exchange rate deviations from its PPP equilibrium can be induced by several factors. Among others, technical progress, or more specifically, productivity differentials, which change the relative prices of tradable to nontradable goods in the economy, and the lack of perfect substitution between tradable goods produced in different countries. As a results, two main lines of research on determination of the real exchange rates were developed. The first emphasized the sectoral (tradable-nontradable) balance of the economy and the second dealt with the underlying net foreign assets position of the country.

2. In a given economy, productivity growth in the open or tradable goods sector is usually higher relative to that of the closed or nontradable goods sector. Under perfect labor mobility, wages tend to be roughly the some across sectors, and hence faster productivity growth in the tradable goods sector pushes up wages in all sectors. This in turn increases the prices of nontradable goods. As a result, in a two economy world, inflation would be higher in the economy with higher productivity growth, which would experience a secularly appreciating CPI-based real effective exchange rate. This is the Balassa-Samuelson hypothesis stripped to its bare essentials.

3. Whereas the Balassa-Samuelson hypothesis assumes that tradable goods produced in any two countries are perfect substitutes, and hence that the nominal exchange rate adjusts to changes in tradable prices in order to equalize prices when measures in a common currency, the lack of perfect substitution between traded goods may also lead to deviations from the PPP. Theories in this area have focused on the trade balance as the main determinant of the exchange rate, with capital flows being treated as exogenous shocks. With financial liberalization and the increasing volume of international trade in financial assets, modern exchange rate models emphasize financial-asset markets and the role of the exchange rate as one of many prices in the worldwide financial markets. Following these theories, the trade flows have still a useful role in asset-approach models, since trade flows have implications for financial-asset flows. In fact, the exchange rate must be consistent with a balance of payment position where a current account is financed by a sustainable flow of international capital. A country running a current account deficit or surplus will accumulate or de-cumulate net assets, and such imbalances would be due to the relevant propensities to save and invest in the respective countries, and it is assumed that such factors are not influenced by exchange market developments. In the long run, however, when agents' assets are at their desired level, the current account should be balanced (Mussa (1984), Frenkel and Mussa (1985)).

The Theoretical Framework and the Empirical Model

4. The model used follows that developed by Alberola and et al. (2002) and is based on the decomposition of the exchange rate into two different relative prices, the price of domestic relative to foreign tradable goods, and the relative prices of nontradable goods relative to tradable goods within each country. The first component captures the competitiveness of the economy and determines the evolution of the net foreign assets position, and it is therefore associated with the external equilibrium of the economy. The second component incorporates the concept of productivity differentials as in the Balassa-Samuelson hypothesis, and since these prices determine the allocation of resources within the economy, it is associated with the internal equilibrium of the economy. The long-run solution of the model represents an equilibrium value for the real exchange rate consistent with the internal and the external equilibria of the economy.

5. Assuming that there are two countries in the world, each producing a tradable good (T) and a nontradable good (N), the REER (q) in logarithm terms can be defined as

$$q = s + p - p^* \tag{1}$$

where p and p^* are the domestic and the foreign consumer price indices (CPI), respectively, and s is the nominal exchange rate. For each country, the CPI, which is formed by prices of domestic and foreign tradable goods and nontradable goods, can be expressed as follows

$$p = (1-\alpha_T - \alpha_N)p_T + \alpha_N p_N + \alpha_T (p_T^* - s)$$

$$p^* = (1-\alpha_T^* - \alpha_N^*)p_T^* + \alpha_N^* p_N^* + \alpha_T^* (p_T - s),$$

where the αs determine the share of each good in the consumer price index. Substituting these expression in (1), we obtain

$$q = (1-\alpha_T - \alpha_T^*)(p_T + s - p_T^*) + \alpha_N[(p_N - p_T) - (p_N^* - p_T^*)]$$

where the weights of nontradable goods for the two countries are assumed to be the same, and the lack of perfect substitution between tradable goods between different countries is also considered. The latter expression indicates that the exchange rate is determined by two different components: the evolution of relative prices of domestic to foreign tradable goods, $q_x = (p_T + s - p_T^*)$, which reflects the external dimension of the economy; and the behavior of nontradable goods relative to tradable goods across countries, $q_I = [(p_N - p_T) - (p_N^* - p_T^*)]$, which relates the internal dimension of the economy. Thus, the equilibrium exchange rate ($\bar{q}$) implies both external and internal equilibrium.

6. **The external equilibrium**. The external balance clears the tradable goods market, and is characterized by the achievement of a desired stock of net foreign assets. The evolution of the current account balance, which determines adjustments to the equilibrium, leads to an accumulation of net foreign assets. The current account balance (*ca*) is defined as the trade balance (*x*) *plus* the net income received or paid by residents (r^*) on foreign asset holdings (*nfa*):

$ca = x + r^* nfa$ expressed in real terms. The trade balance depends on the evolution of the external real exchange rate,[14] namely $x = -\gamma q_{x,}$ and the current account adjusts to the difference between the current and the desired level of net foreign assets (Mussa (1984)), so that a current account surplus would reflect a net foreign asset position below the desired level

$$ca = \eta(\bar{nfa} - nfa)$$

In the long run, and the equilibrium external exchange rate can be defined as follows

$$\bar{q}_x = (r^* / \gamma)\bar{nfa}$$

where the bars over the variables indicate long-run equilibrium values.

7. **The internal equilibrium**. The evolution of the internal real exchange rate is determined by the different behavior of sectoral relative prices between countries, which in turn are related to the evolution of sector productivity. Starting from the productivity

hypothesis, it can be shown that $\bar{p}_N - \bar{p}_T = \mu + (prod_T - prod_N)$

where the *prod'*s are the average sectoral productivities. Neglecting constant terms, it follows that the equilibrium internal exchange rate can be expressed as follows

$$\bar{q}_I = \alpha_N[(\bar{p}_N - \bar{p}_T) - (\bar{p}^*_N - \bar{p}^*_T)] = \alpha_N[(prod_T - prod_N) - (prod^*_T - prod^*_N)] = \alpha_N \bar{prod}$$

8. Putting together the external and internal equilibria concepts produces the equation for the equilibrium REER:

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[1] An appreciation of the external exchange rate (q_x>0) will worsens the competitiveness of the domestic products and consequently the trade balance, when the Marshall-Lerner condition holds.

$$\bar{q} = (1-\alpha_T - \alpha_T^*) r^* nfa / v + \alpha_N [\alpha_N r^* nfa + ((k-k^*) + (z-z^*))/2]$$

where v is speed of adjustment of net foreign assets to changes in relative prices,

(k-k*) is the difference between measures of relative sector productivity at home and abroad (where $k = prod_T - prod_N$ and $k^* = prod_T^* - prod_N^*$), and
(z-z*) = demand shocks

9. **The empirical model**. The theoretical model has identified two main determinants of the real exchange rate (q) in the long-run: the stock of net foreign assets (*nfa*) and the relative sectoral productivities between countries (*prod*) and could be rewritten in the following form by factoring *nfa*:

$$\bar{q} = r^*[(1-\alpha_T - \alpha_T^*)/v + \alpha_N^2)]nfa + \alpha_N((k-k^*) + (z-z^*))/2$$

10. In this form the equilibrium real effective exchange rate is a function of **three variables,** *nfa*, the difference between measures of relative sector productivity at home and abroad, and demand shocks. Abstracting from demand shocks we obtain our empirical model:

$$q_t = \beta_0 + \beta_1 nfa_t + \beta_2 prod_t + u_t .$$

11. Since the main objective is to compute the equilibrium exchange rate as a function of its fundamentals, first the existence of a long-run relationship among the variables has to be established, and second the equilibrium levels of the determinants *nfa* and *prod* must be estimated. In order to determine the existence of a long-run relationship among variables (i.e. to test for cointegration), the Johansen procedure for cointegration is applied. To establish the equilibrium level of the REER, q_t is assumed to fluctuate around its long-term value, but it is not permanently at that value. Moreover, in order to derive the equilibrium exchange rate, nfa_t and n_t are allowed to deviate from their long-run values. From an empirical point of view, the three variables in the system are decomposed into transitory $[\hat{q}_t, \hat{nfa}_t, \hat{prod}_t]$ and permanent components $[\bar{q}_t, \bar{nfa}_t, \bar{prod}_t]$, with the latter capturing the equilibrium of the system:

$$\bar{q}_t = \beta_0 + \beta_1 \bar{nfa}_t + \beta_2 \bar{prod}_t$$

12. Bearing in mind that a unique decomposition between permanent and transitory components does not exist (see among other Maravall (1993) and Quah (1992)), the decomposition by Gonzalo and Granger (1995) is considered. The latter is based on the

assumption that shocks to the transitory component (i.e., misalignments) do not affect the permanent component (i.e., the equilibrium).

13. Gonzalo and Granger (1995) derive a decomposition where the transitory component does not Granger-cause the permanent component in the long run and where the permanent component is a linear combination of contemporaneous observed variables. In other words, the first restriction implies that a change in the transitory component today will not affect the long-run values of the variables. The second restriction makes the permanent component observable and assumes that the contemporaneous observations contain all the necessary information to extract the permanent component. The decomposition is done using the identification implicit in the cointegration of the series. In particular, if cointegration exists amongst a number of variables, then the vector will have a common, or factor, decomposition (Stock and Watson (1988)). Gonzalo and Granger demonstrate that the common factor can be estimated if it is assumed to be a linear combination of the series under analysis and if it is further assumed that the residuals from this model do not have a permanent effect on the original series. The former assumption makes the common factor observable, while the second permits identification.

14. Analytically, consider a 3×1 vector $x_t = [q_t, nfa_t, prod_t]'$, which under the null hypothesis of one cointegration vector admits the following representation:

$$\Delta x_t = A_1 \Delta x_{t-1} + ... + A_{p-1} \Delta x_{t-p} + \Pi x_{t-p} + e_t, \qquad (1)$$

where e_t is a vector white noise process with zero mean and variance Σ and Π is a 3×3 matrix, whose rank will determine the number of cointegration vectors. If cointegration exists, Π is not full rank ($r<3$, with $r=1$ in our case) and can be written as the product of two rectangular matrices, $\Pi = \alpha\beta'$, where β is the matrix whose columns are the linearly independent cointegrating vectors and α is the factor-loading matrix, indicating the speed with which the system responds to last period's deviation from the equilibrium level of the exchange rate. Next, one can always define the orthogonal complements $\alpha_\perp$ and $\beta_\perp$ as the eigenvectors associated with the unit eigenvalues of the matrices $\left(I - \alpha(\alpha'\alpha)^{-1}\alpha'\right)$ and $\left(I - \beta(\beta'\beta)^{-1}\beta'\right)$, respectively. The matrix $\alpha_\perp$ is formed by the vectors defining the space of the common stochastic trends, and therefore should be informative about the key "driving" variable(s) in each of the systems, while $\beta_\perp$ gives the loadings associated with, i.e., the series which are driven by the common trends. Notice that $\alpha'_\perp \alpha = 0$ and $\beta'_\perp \beta = 0$. If the vector x is of reduced rank, r, Gonzalo and Granger have demonstrated that the elements of x can be explained in terms of a smaller number of (3-r) of I(1) variables called common factors, f_t, plus some I(0) components, the transitory elements, $\hat{x}_t$:

$$x_t = A_1 f_t + \hat{x}_t .$$

15. The identification of the common factors may be achieved in the following way. If it is assumed that the common factors are linear combinations of the variables x_t:

$$f_t = B_1 x_t ,$$

and if $A_1 f_t$ and $\hat{x}_t$ form a permanent-transitory decomposition of x_t, then from the representation in (1), the only linear combination of x_t such that $\hat{x}_t$ has no long-run impact on x_t is:

$$f_t = \alpha_\perp x_t$$

16. This identification of the common factors allows to obtain the following permanent-transitory decomposition of x_t

$$x_t = \beta_\perp \left(\alpha'_\perp \beta_\perp\right)^{-1} \alpha_\perp x_t + \alpha\left(\beta'\alpha\right)^{-1} \beta' x_t ,$$

where the permanent and the transitory components are captured by the terms $\beta_\perp \left(\alpha'_\perp \beta_\perp\right)^{-1} \alpha_\perp x_t$ and $\alpha\left(\beta'\alpha\right)^{-1} \beta' x_t$, respectively. Gonzalo and Granger (1995) show that the transitory components defined in this way will not have any effect on the long-run values of the variables captured by the permanent components. The identification of the permanent component with the equilibrium implies that

$$\bar{x}_t = \beta_\perp \left(\alpha'_\perp \beta_\perp\right)^{-1} \alpha_\perp x_t$$

and

$$\hat{x}_t = \alpha\left(\beta'\alpha\right)^{-1} \beta' x_t$$

from where the estimation of the equilibrium exchange rate and its deviation directly follow.

The Data

17. The time period under consideration is 1995Q1-2003Q3 and data are quarterly (seasonally adjusted). The three following variables have been used in the analysis:

Real effective exchange rate (q_t): CPI-based real effective exchange rate of the forint relative to a group of trading partners that represents the vast majority of Hungarian trade. The group comprises Austria, Belgium, Denmark, France, Germany, Italy, The Netherlands, Poland, Spain, and The United Kingdom.[15] The variable is expressed in logarithms.

[15] The selection of partner countries was based on data availability.

Net foreign assets (nfa_t) position is calculated by adding up the current account balances. The initial stock of net foreign assets is 1997Q1, as provided by the international investment position published by the MNB. The net foreign assets position is normalized by the GDP.

Relative sectoral productivities (tradable to nontradable goods) ($prod_t$) are defined as the ratio of the labor productivity index of total industry without construction relative to the productivity index for the rest of the economy relative to the corresponding weighted average of partner country ratios, using the same weights as the ones applied to q_t.[16] The data source is Eurostat. The variable is expressed in logarithms.

Econometric results

18. The econometrics results are illustrated in Figure 10. The top panel reports the historic series of the real effective exchange rate and its equilibrium. The bottom panel displays the deviations from the equilibrium exchange rate along with the computed 95 percent standard error bands.[17]

19. On the basis of the cointegration results (Table), there is evidence of one significant cointegration vector for the system regarding the real effective exchange rate, the net foreign assets position and the relative productivity differentials. It must be noticed that the coefficient of the relationship are positive as expected.

20. The adjustment (or loading vector) associated to the cointegration vector is also reported in Table 1. The negative α coefficient in the exchange

Table. Hungary. Cointegration Analysis Results

Ho: r <=	Eigenvalues	Trace	λ-max	Critical Value 10%	
				Trace	λ-max
2	0.05	1.73	1.73	6.50	6.50
1	0.20	9.17	7.44	15.66	12.91
0	0.45	28.94	19.77	28.71	18.90
Cointegration Relationship:		q_t= 0.17 nfa_t+1.1 $prod_t$			
Loading vector:	-0.05	0.42	-0.19		
Half-life estimate	13.5				
Residual analysis					
Stationary test (c.v. 5.99)		36.07	10.29	31.72	
Exclusion test (c.v. 3.84)		9.85	2.58	9.67	
Homogeneity test (c.v. 3.84)			6.51		

[16] From a theoretical point of view, total factor productivity should be considered, but due to the unavailability of reliable data for such a variable, data for labor productivity are used in the analysis.

[17] Inspection of this panel suggests that the hypothesis that the real effective exchange rate was in equilibrium over the sample period cannot be rejected.

rate equation indicates that the exchange rate moves to close the gap of a disequilibrium by approximately 50 percent every approximately 14 quarters, or that most of the adjustment to a shock to the real exchange rate will be offset after almost seven years.

HUNGARY—THE CONCEPTS OF EQUILIBRIUM AND INTEGRATION AND COINTEGRATION

1. This appendix illustrates the link between the concept of economic equilibrium to those of integration and cointegration in time series econometrics.

2. Starting from the theory of the relative purchasing power parity (*PPP*), the derived equilibrium real exchange rate ($\bar{q}$) would be:

$$\bar{q} = \mu .$$

3. In practice, this does not mean that the real exchange rate must be equal to its equilibrium value at every time period. Considering instead the following model for the real exchange rate (q_t)

$$q_t = \mu + v_t , \tag{1}$$

where v_t captures all the stochastic properties of the real exchange rate at time *t*, one would expect that on average the real exchange rate be equal to its equilibrium value μ, that is

$$E(q_t) = \mu , \tag{2}$$

where *E(.)* is the expectations operation, with a bounded limit to the deviations of q_t from μ, that is

$$\text{var}(q_t) = \sigma^2 < \infty . \tag{3}$$

4. This condition also ensures that, when q_t at a given period is far from its equilibrium value μ, there will be a tendency for q_t to approach μ in the next period. Notice that if v_t follows a stationary process, I(0), then it will satisfy conditions (2) and (3). When those conditions are met, μ can be considered the equilibrium value of *q*.

5. Consider now that v_t is better described by the following process

$$v_t = v_{t-1} + \eta_t ,$$

where for simplicity η_t is white noise with zero mean and variance σ_η^2, then

$$E(q_t) = \mu$$

and

$$\text{var}(q_t) = t\sigma_\eta^2. \qquad (4)$$

6. From expression (4) it follows that, as *t* increases, the variance of q_t increases without bound, which in turn implies that q_t may drift away from μ without bound. In other words, as time goes on, any value of q_t would be feasible and therefore it does not make sense to talk about constant equilibrium.

7. Variables that are not stationary in levels but are stationary in differences are called integrated of order one, I(1). They have the characteristic of not returning to a constant equilibrium mean value. This characteristic does not necessarily imply that an equilibrium value does not exist, but instead that this equilibrium may be time varying.

8. Consider, for example, the model in Appendix II, with

$$\bar{q}_t = \beta_1 \bar{nfa}_t + \beta_2 \bar{prod}_t,$$

where the bar indicates the fundamental of long-run equilibrium values of *nfa* and *prod*. Assume also that, although v_t in expression (1) is I(1), one could express it as

$$v_t = \beta_1 nfa_t + \beta_2 prod_t + u_t.$$

9. Neglecting the constant term in expression (1), the actual real exchange rate would then follow:

$$q_t = \beta_1 nfa_t + \beta_2 prod_t + u_t.$$

If u_t is I(0), then *q* will fluctuate around $\beta_1 nfa_t + \beta_2 prod_t$, and a sensible hypothesis is that the equilibrium exchange rate is given by *nfa* and *prod*. In such a case, one would say that *q*, *nfa*, and *prod* are cointegrated with cointegration vector *[1 -β_1 -β_2]*. If on the contrary u_t is I(1) then *q* might shift apart without bound from the linear combination given by *nfa* and *prod*. In such a case, one would say that *q*, *nfa*, and *prod* are not cointegrated and that this equilibrium hypothesis does not apply.

10. It is important to notice that, differently from the *PPP* theory, under which after a real exchange rate overvaluation one would expect an undervaluation of the same amount,

time varying equilibria add the complication of future developments in the determinants of $\bar{q}$ (in this case *nfa* and *prod*). For example, a consistent finding would be that a currency is overvalued in time *t+1*, when at time *t* was undervalued and in time *t+1* its observed real exchange rate remains unchanged. A reason for this finding is that the long-run value of the controlling variables has changed. Therefore, with a time-varying equilibrium, one would have to infer not only the likelihood of a movement due to the misalignment at time *t*, but also the possibility of changes in the long-run equilibrium values at time *t+1*. As a consequence, the degree of misalignment at a given time period may give only partial information on the misalignment in the next period. Based on the same argument, a currency that is showing a sustained appreciation (depreciation) could still be undervalued overvalued).

II. Financial Sector Regulatory Governance in Hungary: A Cross-Country Perspective[18]

A. Introduction

1. **The Hungarian Parliament recently approved an act reorganizing the Hungarian Financial Supervisory Authority (HFSA).** The law, which includes amendments to the 1999 HFSA Act and was approved on April 5, 2004, transforms the management and governance structure of the HFSA, changes some of the appointment and dismissal arrangements as well as salary structure, and outlines the Minister of Finance's (MoF) oversight powers. The Government states that these changes aim at improving the accountability of the HFSA and should result in more effective supervision. However, there is concern on the part of others that some aspects of the law risk undermining the effectiveness of supervision by potentially weakening the operational independence of the HFSA. The Magyar Nemzeti Bank (MNB, or National Bank of Hungary) noted that the proposed reorganization "would pose unnecessary risks to the stability of the financial system." The MNB in particular noted that the proposal would "restrict personal and institutional independence in numerous respects as well as duplicate the HFSA's organizational system unnecessarily," and that it "granted the Minister of Finance such powers that are at odds with the international requirements of independence."[19]

2. **A few of the recent changes improve some aspects of accountability, but some others could have negative implications for the independence of the HFSA.** Based on an evaluation of regulatory governance—i.e., the manner in which the affairs of a regulator are governed by its board, managers, and staff as well as by public oversight—a positive feature of the new amendments is the creation of a board with more non-executive members, which could provide better oversight of the management of HFSA. However, other changes, in particular with respect to the rather broad oversight powers of the MoF, aspects of the appointment and dismissal arrangements, as well as salaries for key officials, could reduce operational independence.

3. **The authorities have requested technical assistance to ensure that legal changes governing the HFSA and its institutional setup, including those that may also occur in the future, would be in line with best practices (i.e., key international standards and codes).** With that in mind, the paper is organized as follows. Section B provides background material relevant to the recently approved changes at the HFSA, including cross-EU comparisons of integrated financial or banking supervisory agencies outside of the national central banks, i.e., EU "peers" of the HFSA (see Appendix Table 1). Section C discusses

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[18] Prepared by P. Drummond (EUR), P. Madrid (MFD), and S. Mitra (MFD)

[19] See press release at http://english.mnb.hu/modulei.asp?id=130&did=2333.

good regulatory governance for supervisory agencies, especially from the standpoint of independence and accountability. Section D examines best practices in EU peers. Concluding remarks are in Section E.

B. Current and Proposed Structure of HFSA

Overview of HFSA Governance Structure

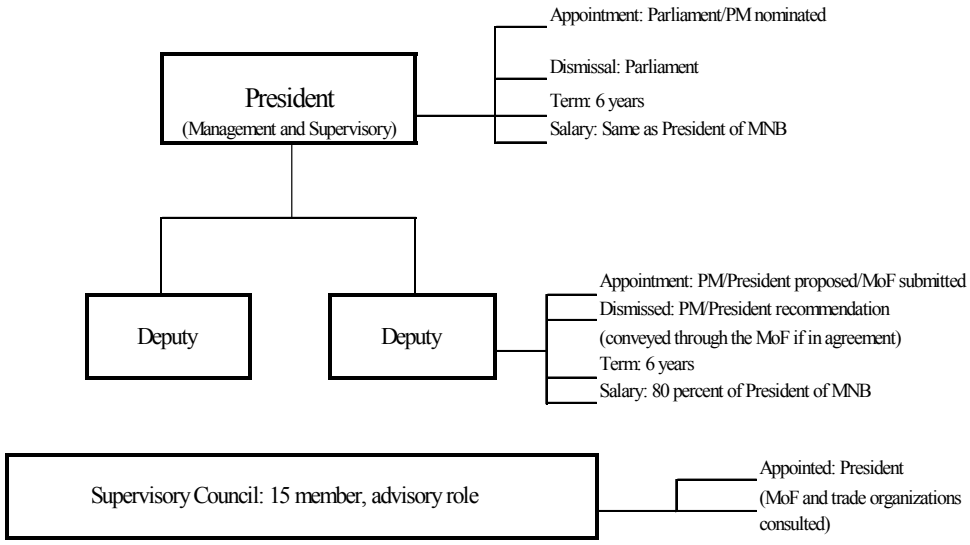
4. **The HFSA is an integrated supervisory agency outside the national central bank.** The HFSA was established on April 1, 2000 by a merger of the previous sectoral supervisors and has, along with the Central Bank, supervisory responsibilities for all organizations engaged in financial services.[20] It is a national public administrative agency, with budgetary independence (i.e., funded by fees from supervised entities, with rates determined by the law), operating under the direction of the Government and supervised by the Minister of Finance (MoF). The HFSA has independence to grant and revoke licenses of non-bank financial institutions, but it must consult the central bank and MoF with respect to the withdrawal of bank licenses. The agency has no regulatory power, but can issue (non-binding) guidelines or recommendations to the supervised sector. The HFSA's supervisory decisions on individual institutions are binding and it cannot be instructed within the scope of its legally ascribed tasks.

5. **Since its inception, the HFSA has been headed by a President and advised by a Supervisory Council (Figure 1(A)).** The President of the HFSA is nominated by the Prime Minister (PM) and elected for a term of six years, but can be dismissed by Parliament for reasons specified in the law and with the dismissal publicly justified. Annually, the President informs a Parliamentary Committee of the HFSA's activities and is also accountable, through the MoF, to the Government. The agency is audited only on an irregular basis. Besides the supervisory powers vested by law, the President has the right to attend Government meetings on supervisory activities in an advisory capacity. As the Chief Executive of the HFSA, the President establishes the operational and organizational rules and is responsible for the management of the agency. The Supervisory Council (SC), which advises on strategic issues regarding improvements in supervision and regulations, consists of 15 members appointed for three years by the President of the HFSA—five members are appointed upon consultation with the MoF, and the remaining ten appointed after consultation with the trade organizations representing the supervised sector. Dismissal criteria for members of the SC are not specified in the current Act.

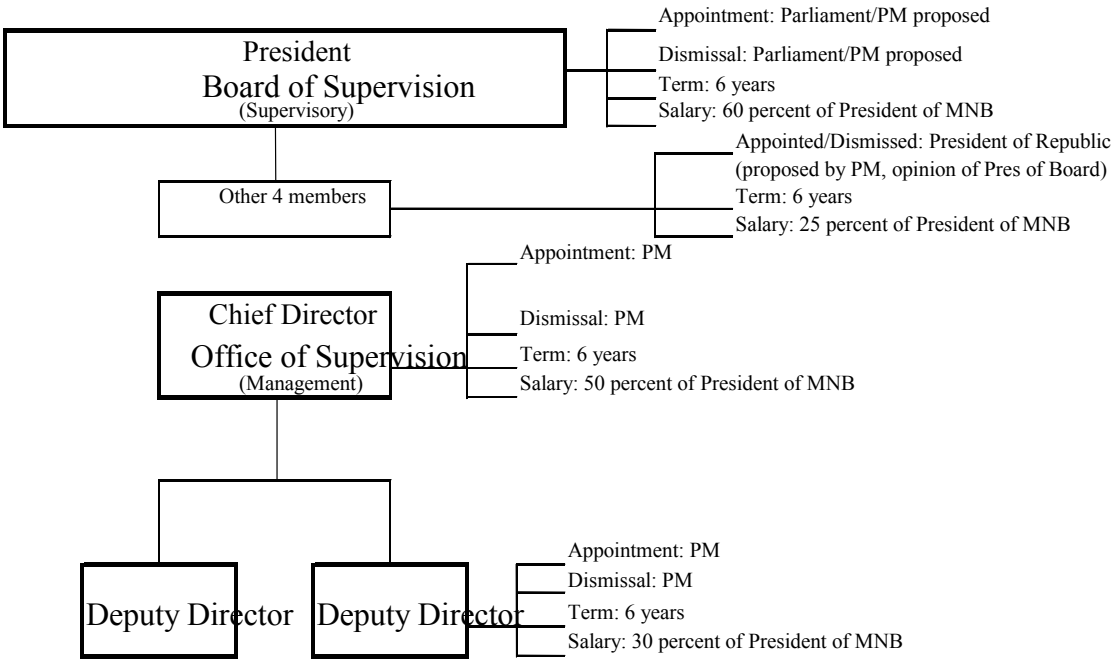
[20] MNB has statutory responsibility for promoting stability of the financial system and the development of policies related to the prudential supervision of the financial system.

Figure 1. Current and Proposed Organizational Structures

A. Current Structure



B. Proposed Structure



6. **In April 2004, Parliament passed new amendments to the HFSA Act that altered the governance structure of the HFSA.** The amendments transform the governance structure, in particular by distributing the powers previously held by the President among a Chief Director, President, and Supervisory Board, as well as changing some aspects of appointments and dismissal arrangements, and outlining the Minister of Finance's oversight powers. The main features of the governance structure under the amended Act are:

- The HFSA will now be governed by a Board, which would be responsible for overseeing the management of the HFSA (e.g., setting its strategy, rules of operations, and auditing methodology) as well as having important strategic supervisory responsibilities (e.g., the power to grant or withdraw licenses and issue supervisory recommendations).

- The Board would be headed by a President who would have direct supervisory responsibilities over the management of the Office of Supervision (OS).

- The OS would be run by a Chief Director (CD), under the supervision of the President. The CD would attend Board meetings in a non-voting capacity, provide technical support to the Board, prepare and implement Board decisions as well as have management functions, such as ensuring efficient operations and managing financial affairs.

- The President is appointed and could be dismissed by Parliament, on proposal of the PM, as before. The other members of the Board would be appointed and could be dismissed by the President of the Republic, also on the proposal of the PM and after consultation with the HFSA President. The CD would be appointed and could be dismissed by the PM.

- There is now no requirement for dismissals to be publicly justified.

- The proposed salary structure is much lower than the current one, under which the President of the HFSA has salary parity with the President of the MNB. Under the amended Act, the salaries of the HFSA President and CD would be 60 percent and 30 percent, respectively, of that of the MNB President.

- The new amendments outline the MoF's supervisory powers over the HFSA (i.e., the exceptions to the HFSA's right of not accepting instructions within the scope of its legally ascribed tasks). The MoF's powers include approving the rules of organization and operations of the HFSA, evaluating the agency's activity based on quarterly reports on supervisory activities and financial market developments, and monitoring

the HFSA's operations including calling on the President of the HFSA, "in the event of shortcomings," "to finish an erroneous practice."[21]

7. **A few of the recent changes improve some aspects of HFSA's accountability, but some others could have negative implications for its independence.** A positive feature of the new amendments include the creation of a Board with more non-executive than executive members and a supervisory (governing) role that could potentially provide the requisite checks and balance to the power of the President and the CD. Also, the focus on enhanced accountability measures, if handled correctly, could help improve the effectiveness of supervision. However, the exercise of these oversight powers by the MoF could lead to undue interference in the operations of the HFSA if the instances and the scope of MoF instructions to the HFSA are not more clearly specified and made more transparent. Moreover, there is a disconnect between the fact that the CD is appointed and dismissed by the PM, but reports to the HFSA President. The Government's role in dismissals, given that public justification is not required, could also lead to conflicts. Below we review practices of EU peers and aspects of good regulatory governance that could serve as guides to ensuring both independence and enhanced accountability of the HFSA.

Cross-Country Comparisons

8. **The new law brings the HFSA's governance structure more in line with EU peers, in several respects, but it gives the MoF more direct powers while not necessarily creating a more effective governance framework.** A survey of other EU financial or banking sector supervisors outside of central banks (henceforth referred to as FSAs) summarizes aspects of regulatory governance (see Appendix Table 1 for details).[22] The main similarities and differences are highlighted below.

9. **The new organizational and 'corporate' governance structure is more in line with EU peers.** The previous organizational structure stood out as unique in terms of having a powerful executive, not overseen by an independent governing body that set management policy and monitored performance. The new corporate structure of the HFSA, which gives the HFSA Board powers over rules of organization and operations, work strategies, budgets and audits, is similar to the oversight powers of governing bodies in EU peers. However, the

[21] Article 1/A (1) c. The definition of "shortcoming" is not provided in the Act. The meaning of "to finish" is somewhat ambigious in this context, but seems to imply "to end" rather "to complete" the practice.

[22] These agencies were chosen as the relevant peer group as supervisors within central banks may enjoy the independence from Government often granted monetary authorities. As this raises different issues from those examined in the Hungarian context, the focus of this paper is on agencies outside of central banks.

HFSA's Board does not necessarily assess the efficient use of resources—the new HFSA law stipulates that the Chief Director, under the control of the President, is responsible for providing for efficient operations. Thus, the law seems to leave executive management (or perhaps the MoF depending on how he exercises his powers to evaluate and monitor) in charge of assessing efficiency, rather than empowering the supervisory board to do so as is the case in several EU peers (e.g., Finland and the U.K.).[23] Also, salaries of key executives are stipulated in the law (to be below that of the head of the Central Bank), while in a few countries the organization's supervisory body has discretion in setting salaries (e.g., Finland, the U.K.); in Luxembourg the Government can allow additional special compensation (although with the salary determined by civil service grade). The ability to have competitive remuneration is important in attracting qualified managers and advisors, helping to maintain the credibility of the financial sector authority. As such, this is one of the essential criteria for operational independence.

10. **The new appointment and dismissal arrangements for the HFSA seem to be a mix of EU practices, although potentially problematic with respect to the Chief Director.** In terms of the appointment and dismissal of the head of the supervisory authority by Parliament, Hungary resembles only Latvia in our sample. This is a generally more robust arrangement for good governance, than appointment and dismissal by the Government, as is the case in most other EU peers. However in Hungary, the CD, who is in charge of day-to-day management and under the direction of the HFSA President, is appointed and dismissed by the Government (i.e., the PM). In other countries with a similar organizational structure (e.g., Malta), the Chief Director of the supervisory office is appointed by the Board, which is also in line with OECD principles of corporate governance. As in most EU peers, the new law specifies the minimum terms and dismissal criteria, but it no longer specifically requires public justification of the reason for dismissal. In many of these EU peers, public justification would be presumed, even though it is not legally required, given the tradition of public scrutiny of Government actions. In Hungary, while public justification is not necessarily an issue for the dismissal of the President, given the role of the Parliament, it may be one for the Chief Director if there is less Parliamentary and media scrutiny.

11. **In terms of ministerial involvement, the new law potentially gives the Minister of Finance more *direct* powers of intervention in operational independence than in EU peers.** In general, a Minister (usually the Minister of Finance) is politically accountable for the financial sector. As such, the MoF may have final budgetary and sometimes organizational (e.g., appointments and dismissals) and oversight powers over the financial sector authority. In most cases, direct oversight responsibilities are delegated to a board or

[23] Typically non-executive bodies monitor financial accountability (e.g., budgets, financial statements, and internal controls), although the duty to assess efficiency is not always specified. FSAs with non-executive boards include those in Austria, Belgium, Estonia, Finland, Germany, Luxembourg, and the U.K.

council that monitors the organization's finances and implementation of policies, with the MoF receiving information (at least annually) on developments and in some cases giving general instructions (typically for the coming year). Where the direct participation of the Government is required (e.g., regulations or in cases of potential systemic instability), several countries (e.g., Estonia, Latvia, Austria, Belgium, Germany, Luxembourg, Sweden, and the U.K.) have established formal frameworks—either in the law, by Memorandum of Understanding (MoU), or through a coordinating body—for sharing information and managing problematic situations. The new HFSA law does not include these more arms-length and transparent oversight and coordination practices into the governance framework. Furthermore, the powers granted to the MoF (for example, in 'approving', 'evaluating', and 'monitoring' the HFSA's operation) without further clarification, could lead to potential Government interference and conflicts with the HFSA.

12. **While the HFSA still reports to the Parliament, a better defined accountability framework is not yet in place.** Like most EU peers, and as in the old law, the President of HFSA informs Parliament of supervisory developments on an annual basis. However, the new law does not require a broader consultative process with stakeholders (e.g., consumers and industry) as is the case in many EU peers (e.g., Austria, Germany, Latvia, Luxembourg, and the U.K.). Partly, this may be because the HFSA, unlike many of its EU peers, does not have regulatory powers. Nonetheless, formal consultative mechanisms could be put in place to exchange views with stakeholders (including consumers), which could lead to more effective supervisory practices. Furthermore, consultations with stakeholders is also important when an agency is funded by fees from supervised entities. Lastly, the HFSA's finances are audited by the State Audit Office on an irregular basis and neither the current nor the amended law require the HFSA to publicly disclose its audited financial statements as is required for many EU peers (e.g., Austria, Latvia, Luxembourg, and the U.K.).

13. **Most FSAs in EU peers have a greater degree of regulatory power.** Only in a few countries does the FSA need the approval of another public authority in order to issue regulations: in Belgium, for instance, prior approval of the King is required; and in Austria, the central bank needs to be consulted first. In several countries (e.g., Finland, Germany, and Malta) the FSA has a degree of regulatory power, although the MoF maintains a role.

C. Assessing Good Regulatory Governance[24]

14. **Sound regulatory governance arrangements are increasingly recognized as an important underpinning of effective financial sector supervision.** Regulatory governance can be defined as the capacity to meet delegated objectives, free of industry capture and political interference, while at the same time respecting the broader goals and policies of the

[24] This section is based on the analysis of Quintyn and Taylor (WP/02/46) and Das and Quintyn (WP/02/163).

public (e.g., as represented by the legislature).[25] Good regulatory governance can be established by complying with principles of effectiveness and observing best practices in terms of four components of governance—accountability, independence, integrity, and transparency—although it also depends on the broader political and legal context.[26] A vehicle for evaluating regulatory governance is the joint IMF-World Bank Financial Sector Assessment Program (FSAP), which undertakes assessments of the key international standards and codes within the overall context of assessing macro-financial stability. Through these assessments, the FSAP recognizes the importance of regulatory governance—in particular the manner in which the affairs of a regulator are governed by its board, managers, and staff as well as by the public (or its representatives)—for supervisory effectiveness and ultimately macro-financial stability.

15. **Regulatory standards can provide a basis for assessing governance aspects.** For example, in the BCP of Effective Banking Supervision, elements of the four features of agency independence—regulatory, supervisory, institutional, and budgetary—are assessed in Core Principle (CP) 1.[27] R*egulatory* independence, i.e., the ability to set (technical) rules and regulations, is assessed in CP 1.3. Three areas of *supervisory* independence—i.e., (i) the power to grant or withdraw licenses, (ii) safeguards to the integrity of supervision, such as legal protection for supervisors, and appropriate salary and career structures, and (iii) ability to apply sanctions—are covered in CP 1.2-1.5. *Institutional* independence, which refers to the agency's separation from the executive and legislative branches, is captured to an extent in the additional criteria of CP 1.1, which highlight the importance of clear objectives, regular review and a transparent assessment process (i.e., public accountability). It is also reflected in the additional criteria of CP 1.2, which stress the need for clearly defined and transparent appointments and dismissals arrangements. *Budgetary* independence is dealt with in CP 1.2. Note however, that not all aspects of independence are specifically assessed in CP 1 (e.g., the relevance of a reasonable appeals process and a crisis management framework for supervisory independence, as well as the role of governance structures, such as multi-member

[25] See Das and Quintyn (D&Q), pp.7–8 and pp. 17–19, and Quintyn and Taylor (Q&T), pp. 27–30.

[26] Features of independence, accountability and transparency are summarized below. Integrity reflects the mechanisms that ensure that staff can pursue institutional goals without compromising them to self-interest. See D&Q, pp. 8–12, for a fuller discussion of these elements of regulatory governance.

[27] Core Principle 1 include CP 1.1: clear responsibilities and objectives; CP 1.2: operational independence; CP 1.3: suitable legal framework—grant/withdraw license and set rules; CP 1.4: suitable legal framework—enforcement; CP 1.5: suitable legal framework—supervisor legal protection; and CP 1.6: information sharing. See Q&T for a discussion of the features of independence.

commissions, for institutional independence). On the other hand, the features of independence also include the other broad elements of regulatory governance, and likewise CP1 recognizes that independence is reinforced by good practices in accountability, integrity and transparency.

16. **Assessments of financial policy transparency practices can also provide information on an important aspect of regulatory governance.** Regulatory standards, while stressing the importance of governance aspects for effective supervision, are not designed to provide a comprehensive overview of regulatory governance. The Monetary and Financial Policy (MFP) Transparency Code, on the other hand, focuses more directly on transparency arrangements, mainly as a prerequisite for the practice of good governance. Thus, the analysis of governance practices requires bringing together the different governance-related elements from the regulatory standards and the MFP Code, as well as evaluating features of governance not specifically assessed in the standards and codes. These include broader political, constitutional and legal considerations, which may affect how governance mechanisms work in practice (discussed further below).

17. **Good regulatory governance can be best achieved by granting a fair degree of independence and matching this with well-defined accountability arrangements.** As Das and Quintyn note, there is a growing consensus worldwide on the importance of independence for good regulatory governance. It is also increasingly recognized in theory and practice that independence goes hand in hand with accountability. However, although the principles of accountability are generally accepted—i.e., that independent agents should be accountable to the delegators of responsibilities, including the Government, regulated entities, and the public at large—implementing these has often met with difficulty as it requires a complex combination of approaches: e.g., "legislative and executive oversight; strict procedural requirements; public participation; and most importantly, substantive judicial review." (D&Q, p.10). Quintyn and Taylor note that the ideal arrangement is for an agency to score highly across all four dimensions of independence while also employing solid measures of accountability. They identify nine criteria for establishing a strong basis of accountability: i. clear legal basis for powers; ii. clear objectives; iii. defined relationship with executive (i.e., on range of issues and form in which agency must inform or consult the MoF); iv. legal basis for appointment, reappointment and dismissal; v. clearly specified override mechanisms (i.e., circumstances and nature); vi. clear Parliamentary procedures of accountability; vii. formal (judicial) appeals mechanism; viii. transparency; and ix. budgetary accountability. These criteria also highlight how independence, integrity, transparency, and accountability are closely inter-related.[28]

[28] MFP Code assessments that deal with accountability, include in particular: 5.1.3: broad modalities of accountability; 4.2: explain objectives and performance to public; 8.1: appear before a designated public authority; 5.1.4: procedures for appointment, terms of office and

(continued…)

18. **Regulatory governance is also conditional on the broader political, constitutional or legal environment.** In some countries it is difficult to fit an independent regulatory agency into the traditional constitutional or legal framework (e.g., often reflected in the lack of regulatory power or, on the other hand, the lack of effective mechanisms to avoid regulatory failure). This may be partly as a result of viewing independence and accountability as trade-offs rather than complements. On a different level, once independence has been granted to an agency, it cannot be removed as easily as otherwise in a system with extensive checks and balances, e.g., a legislative system with at least two parties with veto powers, transparency in the political process, media scrutiny and the absence of a close Government-business nexus. When there are fewer checks and balances, there may be more incentives, or it may be less costly, for the Government to override supervisory actions. Moreover, it takes time for such a political culture of checks and balances to take hold fully, but the lack of this constraint on Government interference can undermine the credibility of the supervisory system and perhaps the development of the financial sector. Thus, the message for countries with political systems lacking more extensive checks and balances is that, given today's globalized financial system, it may be necessary to set out in the laws, as fully and formally as possible, the principles of effective supervision and international best practices, as a strong commitment to good regulatory governance.[29]

Box 1: Formal Arrangements in Latvia

The FSA Act of Latvia provides an explicit legal basis for the relationship between the agents involved in financial sector supervision. This provides for a more effective decision-making process that can help enhance regulatory governance.

The law specifies clearly the relationship between the FSA, the MoF and the CB, specifying the reporting and information sharing obligations for the FSA, which is required to:

- Submit a summary report on the financial and capital market situation to the CB and MoF, at least once per quarter.
- Inform the Governor of the CB and the MoF of actual or potential short-term liquidity problems of a particular financial and capital market participant.
- Share relevant statistics with the CB.
- Provide information on the financial status of specific credit institutions upon a written request of the Governor of CB.

The Act also lays down formal procedures for coordination and accountability of the Agency's functions:
A Consultative Council, with an advisory role, is established to promote the efficiency of monitoring of the financial and capital market and promoting financial stability. The Consultative Council comprises of representatives from the FSA as well as the heads of the financial markets professional associations. Its duties include:

- Review draft financial and capital market legislation.
- Review a financial and capital market participant's complaints (if requested) regarding the findings of the FSA's inspections.
- Review FSA's budget and prepare policy recommendations to the FSA on its functions.

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removal; 6.2 and 6.4: public consultation; and 5.2: relationship between financial agencies (including MoF).

[29] See for example Box 1 on formal arrangements in Latvia that serve as a good example.

D. Best Practices Comparison

Hungary's BCP and MFP Assessments

19. **Hungary participated in two reviews of financial system stability issues, which among other things, have assessed the effectiveness of supervisory arrangements.** In 2000, Hungary participated in the joint IMF-World Bank FSAP, which included detailed assessments of compliance with the BCP of Effective Banking Supervision by the then banking supervisor, Hungary Banking and Capital Markets Supervision (HBCMS), as well as observance of IMF Monetary and Financial Policy (MFP) Transparency Codes. In 2002, an FSAP Follow-Up included Reports on Standards and Codes (ROSCs) on banking supervision and financial policy transparency. As described previously, these assessments provide a good basis for analyzing regulatory governance issues and some of the relevant issues in Hungary's case are summarized below.

20. **The 2002 FSSA Follow-Up noted significant progress in attaining operational independence and enhancing accountability.**[30] The Act on the HFSA of 1999 established a unified financial sector supervisory agency, which started operating in April 2000. The 2002 FSSA Follow-Up found that amendments introduced in 2001 to the HFSA Act (1999) improved the appointment and dismissal arrangement by shifting the nomination powers for the head of supervision from Government to Parliament and establishing the basis for budgetary independence by allowing the financing of the HFSA through supervisory fees. The President was now required to inform annually the competent Parliamentary commissions about the activities of the agency. Furthermore, the HFSA also published a mission statement in 2000 to clarify its objectives, responsibilities and working methods. However, the HFSA still did not publicly disclose its financial statements that were infrequently audited by the State Audit Office. Also, very importantly, even though the HFSA could issue legally non-binding 'recommendations' meant to promulgate best international practices and clarify the modalities of supervisory enforcement, it still lacked regulatory powers.

Cross-Country Examples of Best Practices

21. **EU peers that have received good standards and codes assessments can provide examples of practices that enhance independence and accountability.** Based on the sample of those supervisory agencies that have also been assessed under the FSAP, several practices stand out as potentially enhancing both independence and accountability.[31]

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[30] See IMF Country Report No. 02/112, June 2002.

[31] The current supervisory authorities of Malta, Germany, Finland, Luxembourg, and the U.K. have been assessed under the FSAP. Estonia and Latvia also had FSAPs, but the assessments were done at the time their supervisory agencies were part of their central banks,

(continued…)

22. **Granting regulatory power can improve supervisory efficiency and effectiveness**. The main arguments justifying regulatory independence is that it allows for fast action when needed, consistency, and expert input. In particular, given a globalized financial system, regulators need to be able to adapt prudential rules and regulations quickly and flexibly to international best practices. However, there is often a concern that such independence will result in over-regulation. The U.K. Financial Services and Market (FSM) Act is a good example of how this power can be effectively stipulated and checked, as the act requires that the FSA have regard to principle of regulating proportionally (i.e., that the regulatory burden be proportionate to the benefits), as well as establishing a strong accountability framework (see Box 2).

Box 2: Independence and Accountability of the United Kingdom FSA

The FSA is an independent non-Governmental body, established as a company limited by guarantee, accountable to the Parliament through HM Treasury (HMT), who also appoints the governing Board based on principles of good corporate governance known as the Nolan Principles (http://www.ocpa.gov.uk/pages/downloads/pdf/codeofpractice.pdf). The Board sets the FSA's overall policy, but is not involved in the day-to-day operations. The Non-Executive members of the Board review the efficient use of resources, internal financial controls and remuneration of executive members. The FSA law (Financial Services and Markets Act) requires the FSA to manage its affairs with regard to generally accepted principles of good corporate governance.

The Government has powers (set out in the FSA law) to direct the FSA to cover particular issues in its public Annual Report, establish whether the FSA is providing value for money, periodically review the secondary legislation under which the FSA operates and the boundaries of regulation, launch statutory inquiries into possible regulatory failure, and appoint and remove Board members. Although the law does not explicitly require public disclosure of the reasons for removal, the BCP assessment concluded that there was no evidence of Government interference in operational independence of the FSA and that an important safeguard in the U.K. context is close public scrutiny provided by an independent media and Parliament. Furthermore, the FSA's independence and accountability are supported by effective transparency. For example, the HMT and FSA published an exchange of correspondences that explicitly state that the Government has no power to interfere with how the FSA regulates individual cases, but also sets out how the FSA will keep the Government informed of regulatory cases with serious and wider implications (www.hm-treasury.gov.uk/Newsroom_and_Speeches/Press/2001/press_144_01.cfm?).

FSA independence is complemented with effective accountability measures, with clear objectives and checks and balances set out in the law, such as:

- Reports to the HMT (who reports to Parliament) on the discharge of its functions
- Meetings with the public to discuss the report HMT presents to Parliament
- Public consultations with practitioners and consumers (two independent panels) on consistency of policies with general duties
- Arrangements for the investigation of complaints arising from the exercise of its functions, including an independent Financial Services and Markets Tribunal (part of Government)
- An inquiry by HMT if there is a serious regulatory failure
- Appointment by HMT of an independent person to review use of resources in terms of economy, efficiency and effectiveness.

Subject to these accountability mechanisms and checks and balances, the FSA operates independently of Government.

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so that their current financial sector authority structures have not been assessed. Other countries in the sample reviewed may also have structures and policies consistent with principles of effective supervision and good practices in transparency, but without a formal assessment it is difficult to say how effectively these are implemented.

23. **Setting clear objectives and requiring the supervisory agency to report on performance based on specific criteria and with a high degree of transparency can enhance accountability.** Practices in Sweden and the U.K. provide good examples of effective and transparent evaluation frameworks for Government guidance and monitoring of agency's activities that do not reduce operational independence. In Sweden, the MoF gives the FSA an annual directive outlining its responsibilities and priorities for the year and the framework by which the FSA is to report on the achievement of the objectives. The directive is publicly available. The FSA then sets its operational goals and objectives (without consulting with the Government). In the U.K., the FSM Act, under which the FSA operates, requires the U.K. FSA to observe several "principles of good regulation", which are specified in the Act, and report on the discharge of its functions to the Treasury (who reports to Parliament), at least annually. HMT can, under the powers specified within the Act, direct the FSA to cover particular issues in its public annual report. The HMT in particular has an interest in assuring the FSA is accountable to the public and asks the FSA to assess its performance against its statutory objectives and report on how it dealt with major regulatory cases. The manner in which the HMT proposes to use the legislative powers granted under the Act are laid out in a document published on the Treasury's web site.

24. **A supervisory (non-executive) board or other independent body can enhance the efficiency and effectiveness of operations.** Several countries use this governance structure to oversee the conduct of management, typically in terms of its financial affairs and internal rules of the organization. For example, in Finland, a Parliamentary Supervisory Council oversees the expediency and efficiency of the operations of the FSA. In Germany, the Administrative Council, which includes the MoF as well as representatives from Parliament and industry, monitors management and approves the budget. Note, however, that given the involvement of the MoF in Germany, the FSAP recommended that the scope of the role of MoF in matters of internal procedures should be clarified. In Luxembourg, a (non-executive) board oversees the banking and securities commission's management and financial affairs, and submits the agency's financial accounts and management reports to the Government for approval. In the U.K., the non-executive committee of the FSA Board reviews efficient use of resources and internal controls and reports annually to HMT on the discharge of its functions. The FSA is required by the FSM Act to have more non-executive than executive directors, follow principles of good corporate governance, and have the financial statements audited by an independent auditor. Furthermore, HMT can appoint an independent person to review the FSA's use of resources in terms of economy, efficiency and effectiveness.

25. **Consultation with advisory bodies can also provide an appropriate check on supervisory power.** In Germany, there is an Advisory Board, consisting of 24 representatives from industry, consumer protection associations, academia, and the Bundesbank, that advise the supervisory agency on specific tasks. There are also two sectoral councils—for insurance and securities, with representatives from the regulated sectors—and a Takeovers Council that advises on this issue and includes representatives from financial services providers, issuers, investors, employers and academia. In Luxembourg, there is a Consultative Committee, composed of nine members including the MoF (or representative of the MoF), two members

from the Management Board, and six industry representatives, that reviews regulatory proposals submitted by Management. In the U.K., the FSA has a statutory duty to consider the views of two independent panels that represent the interests of consumers and practitioners of financial services.

26. **Modalities of Government involvement in financial sector issues that are specified in the law or in formal agreements can help mitigate conflicts and enhance effectiveness.** Some FSAs under the oversight of the MoF have accountability and transparency modalities stated in the law or formal agreements. In Sweden, the law specifies the modes of cooperation between the FSA and MoF and the manner of exchanging information; the law also specifically prohibits interference by Government in the day to day operations of the FSA. Germany has a Forum, which includes representatives from the FSA, Bundesbank and MoF, to coordinate and advise on issues of systemic stability. In the U.K., the law states the cases in which the Treasury may arrange for *independent* inquiries (e.g., events which posed or could have posed systemic instability or serious losses to listed securities that may have been due to regulatory failure). Furthermore, an MoU between the FSA, Bank of England, and HMT specifies what information will be shared and the responsibilities of each in handling financial stability issues.

27. **Appointments and dismissals arrangements require strong transparency and checks to ensure independence from undue Government influence and should ensure consistent lines of authority and accountability.** Best practices (e.g., the BCP) call for the law to specify that the reason for removal be publicly disclosed. However, while this is accepted in principle, it is observed less frequently in practice. One example among the EU peers, where this is explicit, is Sweden.

28. **Independence and accountability are supported by good transparency.** In the U.K., for example, HMT and FSA published excerpts of an exchange of correspondences that explicitly affirm that the Government has no power to interfere in individual cases, while also setting out how the FSA will keep the Government informed of regulatory cases with serious and wider implications.[32] More generally, other countries that are in a high degree of compliance with the principles of effective supervision, also tend to have a high degree of observance of the IMF's transparency code on financial policies.

E. Summary and Recommendations

29. **The HFSA Act was recently amended with the aim of improving supervisory effectiveness.** The amendments consist of changes to the organization's governance structure—changes in the distribution of power among key executives and the creation of a board, the appointment and dismissal arrangements for its key personnel, and the oversight

[32] See www.hm-treasury.gov.uk/Newsroom_and_Speeches/Press/2001/press_144_01.cfm.

powers for the MoF. Although some of the changes are positive and bring Hungary closer in line to governance structures in EU peers (e.g., a board with an oversight role), there are certain elements in the amendments that could lead Hungary away from international best practices. For example, operational independence may be weakened by the appointment and dismissal arrangement for the Chief Director, which could result in conflicts between the President of the HFSA and the MoF. Furthermore, without further specification and checks on the oversight powers of the MoF, there could be undue interference in day-to-day operations.

30. **A cooperative approach that focuses on effective decision making among the major players in financial system supervision could enhance effectiveness.** Based on lessons from corporate governance, and the definition of and measures to achieve good regulatory governance, it would seem that ensuring a more effective decision-making process could reduce the chances of regulatory failure. Measures that enhance both operational independence and accountability, while demonstrating the willingness of Government to commit to good governance (i.e., by stipulating principles and practices in the law), can thus enhance policy effectiveness. The overview of best practices in EU peers shows that independence and accountability may be enhanced by:

- Formally specifying the modalities of Government involvement (e.g., in sharing information about and handling cases that impact on systemic stability), either in the law, in other formal agreements (like an MoU) or possibly through the operational rules of a coordinating body, to minimize conflicts and enhance policy effectiveness.

- Increasing the transparency and integrity of the interactions between the Government and the FSA (e.g., publication of communications and directions), dismissal procedures (e.g., public justification of the reason for dismissal) and financial accountability (e.g., publication of audited financial statements).

- Allowing the FSA more effective capacity to fulfill its mandate, including by giving the FSA regulatory power as well as by giving the board the power to select or replace key executives (e.g., the Chief Director), in line with principles of good corporate governance.

- Creating advisory bodies representing a broad cross-section of stakeholders (e.g., industry, professional associations, consumers, central bank, ministries, members of Parliament, and academia) can provide an appropriate check on supervisory power.

- Setting clearer objectives and requiring the HFSA to report on performance, based on specific and meaningful criteria (for example, in publishing any performance goals that the Government may require of the agency), to improve general accountability.

- Ensuring adequate salary levels enable the HFSA to attract qualified senior officials to maintain the credibility of the supervisor.

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ASPECTS OF REGULATORY GOVERNANCE 1/

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence Issues	Accountability Modalities
				Role of Minister(s)	Coordination Issues		
EU-members (Contd.)							
Estonia	**Chair of MB**; organizes activities of MB; organizes the administration of the FSA and the disclosure of activities of FSA; and represents FSA in court.	**Management Board (MB) + Supervisory Board (SB)** *(Executive MB)* Chair + 4 members appointed by SB. Responsible for all supervisory decisions. *(Non-executive Supervisory SB)* 6-member SB: includes MoF (Chair), CB Governor, and 2 nominated by CB, 2 nominated by Government. Oversees activities of MB, proposes rate of fees to MoF. Approves salaries of MB and rules of conduct of SB and annual report of FSA.	**Chair** of MB and other members appointed and dismissed by SB. Removal reasons specified in the law. Term specified. **Members of the SB** appointed by the Government (with 2 nominations by CB).	As Chair of SB, organizes the activities and administration of the SB.	MoU on tri-partite coordination between MoF, CB and FSA with respect to collection and analysis of reporting, drafting of legislation, and exchange of information.	Budgetary independence. Power to issue and revoke licenses. No regulatory power (but needs to coordinate on draft of regulations). Appeals allowed.	Annual submission of report on the effects and application of legislation relating to the financial sector and supervision to the Parliament and the CB
Hungary (current)	**President** governs working organization, exercises employer's rights, manages financial affairs, represents the HFSA, participates in govt. meetings (advisory capacity) when supervisory activities discussed and fulfils tasks assigned by law or rules of organization and operation (ROO).	**Council** **Council** (15 members) advises on strategic issues involving improvements to supervision and the application and updating of regulations. Chaired by President.	**President**—by Parliament (nominated by PM). **Deputies**—by PM (recommended by President through MoF). Fixed terms. Dismissal criteria in the law; public justification required. **Council** appointed by President of HFSA, upon consultation with MoF (5 members) and professional associations (10 members).	Exercise employer's rights (except appointment or dismissal).		No regulatory powers. Cannot be instructed in fulfilling duties. Consult with CB/MoF in withdrawing bank license. Chief executive salary (set in law) equal to CB head. Appeals allowed.	Reports directly to MoF. Reports to Government and publishes report on operations (annually). Informs Parliament (annually). Financial statements not published. Irregular audits.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence Issues	Accountability Modalities
				Role of Minister(s)	Coordination Issues		
EU-new members (Contd.):							
Hungary (amended)	**President** (see Board), **Chief Director (CD)** and **2 Deputies**. **CD** heads Office of Supervision: manages organization (under control of President); provides for efficient operations, attends Board meeting as consultant in advisory capacity; guarantees Board receives technical support (as determined by President); prepares and implements Board decisions; and fulfills tasks under law and ROO.	**Board** **Board** includes President and (up to) 4 members: defines work strategy and organizational structure; prepares draft ROO; involved in licensing; issues supervisory (non-binding) recommendations; and approve audit strategy and methodology. **President** of the Board represents HFSA; calls and chairs Board meetings; publishes decisions; submits ROO for approval to MoF; supervises budget and makes proposal for fees; exercises employer's rights (excluding appointment/dismissal) over CD and Deputies; fulfills tasks under the law.	**President** appointed and dismissed by Parliament (PM proposed); **Other Board members** appointed and dismissed by President of Republic (PM proposed, President of Board consulted). **Chief Director** appointed and dismissed by PM. Minimum term specified.	MoF approves ROO of HFSA; evaluates activity based on quarterly reports (can request complementary info.); and monitors operations (incl. calling for termination of "erroneous practice").		MoF can instruct HFSA within the scope of its specific powers (see role of MoF). Chief executives salaries (set in law) below CB head. CD reports to President (and Board), but can be dismissed by PM. Appeals allowed.	Same as above with more reporting and information sharing requirements with respect to MoF.
Latvia	Chair and 1Deputy. The Chair represents FSA: is responsible for the organization of its activity, and hires and dismisses staff.	**Council** Chair, 1 Deputy and 3 other members. Has exclusive right to: approve supervisory and regulatory policies for the financial and capital markets; specify supervisory fees; approve structure and annual budget of commission; specify remuneration of staff; and approve FSA's annual report.	**Chair and deputy** Appointed and dismissed by Parliament (joint proposal of MoF and Governor of CB). Minimum term specified. Reasons for dismissal specified in the law. **Other members** appointed and dismissed by Chair (consulting with CB and MoF)	MoF may participate in Council meetings as advisor.	FSA submits information on of financial and capital markets and potential short term liquidity problems to MoF and CB. Act specifies relation of FSA with CB and MoF.	Can issue binding rules and regulations. Financed through supervisory fees. Issues and suspends licenses.	Consultative Council with members of FSA and heads of professional associations to promote efficiency. Annual report and audited report to Parliament and MoF. Opinion of auditor published.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence issues	Accountability modalities
				Role of Minister(s)	Coordination Issues		
Malta	**Chairman** (see Board of Governors). **Director General (D-G)**, chairs Supervisory Council (SC). **Chief Operations Officer (COO)**, heads Board of Management and Resources.	**Board of Governors + Executive Coordination Committee + Supervisory Council + Board of Management and Resources** **Board of Governors (BoG)**: a Chairman plus up to 6 other members. Sets policy for the authority. **Executive Coordination Committee**: composed of Chair of BoG, D-G and COO. Oversees application of policies approved by Board. **Supervisory Council**, chaired by DG and composed of the Directors of each unit of FSA. Sets policies and guidelines of the Banking Unit responsible (by law) for banking supervision, and proposes amendments to banking law. **Board of Management and Resources:** Headed by COO, includes other officials designated by BoG. Responsible for day-to-day management and finances.	**Board of Directors** appointed (and dismissed) by PM (fixed term, renewable). Dismissal and disclosure of reason of dismissal at discretion of Govt. **DG** and **Board of Management and Resources:** by Board of Governors. All officials are permanent staff subject to general employment law/contracts (no minimum term unless specified in contract).	Appoints members of the Dispute Tribunal and approves publication of legal notices (including penalty structure) after notices have been vetted by the Office of the Attorney General. Sets remuneration of Board.	Act specifies that FSA may provide information to public authorities with a mandate over such information, based on written request.	No explicit provision in the law for the members of the Board or SC not to seek instructions from government or industry. Financed by fees, and governing bodies fully independent in deployment of resources.	Transmits to Parliament, through MOF, annual accounts with report on its activities. Governors required to report to Parliament and to Public Accounts Committee, usually once a year. License holder may appeal to the Dispute Tribunal. SC holds informal consultations with practitioners before proposing amendments to law.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence Issues	Accountability Modalities
				Role of Minister(s)	Coordination Issues		
EU-members							
Austria	2 Executive Directors (ED): represents FSA in and out of court. Responsible for all activities of FSA.	**Executive Board + Supervisory Board** Executive Board (EB) consisting of 2 EDs. Issues rules of procedure (requires approval of SB). Reports to SB every quarter. Submits audited annual accounts to SB for approval. Supervisory Board (SB): Chair, Vice Chair and 6 members. Oversees management. Approve audited annual accounts and submits it to MoF	**Executive Directors**—appointed by Federal President (proposed by Govt.). Minimum term specified. Reason for dismissal need not be made public. **Chair and Vice Chair**—by MoF and CB. 2 of the members of the SB proposed by Federal Economic Chamber.	Supervises the FSA. Proposes appointments of Boards. MoF can also dismiss SB and EB member (after consulting CB, except in emergency). Decides (in consultation with CB) remuneration of SB members.	3-member Financial Market Committee with representatives of FSA, CB, and MoF. Situated at the MoF. Promotes exchange of ideas and provides advice on financial markets. External experts can be called in as consultants.	Has regulatory power, but needs to consult CB, and relies on non-binding guidelines. Govt. partially finances the FSA. Appeals not allowed except in administrative penal proceedings. Can grant and revoke licenses.	FSA submits an annual report to a parliamentary committee and MoF. Externally audited annual accounts published on website.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence Issues	Accountability Modalities
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EU-members (Contd.)							
Belgium	Chair and 1 Deputy Chair (jointly) of SB and MC. Secretary General (S-G) responsible for general administrative organization and management of FSA and coordinates FSA's co-operation with other institutions.	**Management Committee (MC) + Supervisory Board (SB)** **MC:** Chair and 4 (upto 6) members. Passes regulations upon SB's recommendations; administers and manages FSA and determines thrust of its policy. Can recommend that SB have an advisory committee. **SB:** Headed by Chair and 10 (upto 12) members. Submits recommendations to MC on priorities regarding supervisory policies; supervises financial accountability; submits proposals/recommendations to the govt.; submits recommendation for appointment of Chair, members of MC and Secretary General.	**Chair**—by King (proposed by MoF and Minister of Economic Affairs); Term specified. **Secretary General** appointed by King. Dismissal criteria not specified. **Board** appointed by King: 7-9 proposed by MoF and MoEA, 3 from Council of Regency of NBB (CB). Term specified. Chair's remuneration and pension determined by King.	Proposal in appointments of senior personnel.	2 bodies set up to advance coordination: (1) chaired by CB Gov., with members of SB and Council of CB. SB provides advice at the request of ministers or own initiative; organizes consultation between FSA and the CB; and (2) Committee for Financial Stability, chaired by CB Gov., with members of the MC and Board of CB, coordinates on financial stability issues.	Has budgetary independence and regulatory power (approval of King required). Appeals allowed.	Draft regulations published on website, inviting comments from those concerned. Annual report on operations on website. Chair may be heard by competent commissions of the Legislature, at their request or on his own initiative. External auditors used.
Denmark 2/	Director General, manages daily affairs; has overall responsibility for strategic planning and the allocation of resources among the divisions.	**Board** 5 members	NA	NA	NA	Helps draft regulatory rules. Funding comes from the national budget. Although these funds are reimbursed via annual contributions from all supervised enterprises.	Director General advised by the Danish Financial Business Council on issues related to the financial sector generally.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence issues	Accountability modalities
				Role of Minister(s)	Coordination Issues		
EU-members (Contd.)							
Finland 3/	Director General (DG)	**Board + Supervisory Council (PSC)** Board: 6 members and 3 deputy members (**DG** of both FSA and Insurance Supervision are members). Decides on fees and budget; presents rules of procedure to PSC for approval; appoints/ dismisses high officials (except DG); and presents report on operational objectives and achievement to PSC at least annually.	Parliamentary Supervisory Council (PSC) supervises overall expediency and efficiency of the operations of FSA; appoints members of Board; decides bases for determination of DG's salary.	**DG**—by President of Republic (on rec. of Council of State and PSC); **Chair, Deputy Chair—**by PSC. **Board**—3 by PSC; 2 members and 1 deputy member by MoF; 1 member and 1 deputy member by Ministry of Social Affairs and Health. Term specified.	MoF has authority over legislation, rule formulation, and licensing.	NA	Can issue licenses; while only MoF can revoke licenses. Salaries same as CB.	Parliamentary auditors and external auditors review the FSA's financial statement. Also audited by the Internal audit unit of CB.

Country	Management Structure (Key Executives)	Governing/Advisory Body	Appointment and Dismissal	Ministerial Involvement		Independence Issues	Accountability Modalities
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EU-members (Contd.)							
Germany	President and Deputy. **President** manages, defines the procedures governing internal organization and regularly reports to the Administrative Council on conduct of business.	**Administrative Council, Advisory Board, Objections Committee and Advisory Councils** **Administrative Council** consists of 21 members with representatives of key Ministries (Finance, Economy and Justice), Parliament (5 members), financial industry (10 members) and the Bundesbank (non-voting observer). Monitors management (in accordance with law) and supports it in carrying out its duties (e.g., approves budget). Has a right to information from the President and to be heard by President. **Advisory Board** advises on supervisory practices and makes recommendations on regulations. Must include adequate representation for Bundesbank. **Objections Committee** decides on protests lodged against orders made by FSA in certain cases. Chaired by President of FSA, with 2 other civil servant representatives from FSA and 3 honorary members. **Advisory Councils:** Insurance Advisory Council (41 representatives from Insurance), Securities Council (representatives of Securities), and Takeover Council (representatives from issuing entities (4), institutional and private investors (2), from financial services providers (3), from employees' groups and academic institutes (4)).	**President** by President of Republic (on proposal of MoF). Appointed "for life". Dismissal subject to civil service law. President may appeal to Administrative Court. Public justification not required. **Administrative Council**—by MoF. Fixed terms. Appointment and dismissal criteria in the law.	Has legal and supervisory powers to ensure tasks executed in accordance with law, effectively and adequately. Can give instructions to FSA, e.g. on organizational matters, and must be consulted on internal procedures. Endorses/refutes Council's decision on the budget. In systemic cases, the Federal Government (normally with advice of FSA) may issue concrete emergency measures.	Forum—consisting of representatives of FSA (Chair), Bundesbank and MoF—coordinates and advises on issues of systemic stability.	Operationally independent, but scope of MoF power unclear, e.g., its mandate to issue instructions and requirement to consult with MoF on internal procedures.	Accountable to MoF (who is accountable to Parliam). Budget checked by Audit Institution. President appears before Forum, Council, and Board; informs on performance and exchanges views. Annual report on supervisory activities published. Councils serve as advisory bodies with representatives from industry, the Lander, employees or academia. An Objections Committee decides on objections lodged against FSA orders.

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EU-members (Contd.)							
Luxembourg	Director General and 2 Directors (see Executive Board).	**Executive Board +Board of Directors** **Executive Board (EB)**: Director General and 2 Directors. Elaborates measures and takes decisions on supervisory activities and management of organization. Responsible for required reports and proposals presented to the BoD and Govt. Reports annually to MoF on financial sector developments. **Board of Directors (BoD)**: 7 members. Only general budgetary and management (personnel) oversight powers; submits financial account and management report to Government for approval. **Consultative Committee (CC)**: 9 members including the MoF (or representative), 2 Management, and 6 industry representatives. Reviews regulatory proposals submitted by Management, and advises Govt. on draft laws/regulations.	**EB**: by Grand-Duke (on proposal of Govt.; BD opines on dismissal of individual EDs). Fixed term, renewable. Board may be dismissed due to fundamental disagreement on policy/mission. **BoD**: by Govt. (4 proposed by MoF, including Chair, and 3 by supervised entities). Fixed terms. Law does not require public justification of members of either board. **CC**—by MoF for fixed, renewable, term.	MoF nominates members of Board (including Chairman) and Consultative Committee. Licenses approved/ withdrawn by Minister (on FSA recommen-dation).	**Consultative Committee** (see Governing/ Advisory Body).	Although MoF grants licenses, FSA does analysis based on specific criteria set out in regulations. Law allows FSA to set prudential rules. Salaries of EB set by law (public employment grade), although govt. may allow a special compensation. Salary of BoD set by government.	Annual report submitted by EB to Minister. Officials available, but not required, to report to public authorities. Besides Consultative Committee, internal committees (estab. by Mngmt.) with representatives from industry give advice to Mngmt. Appeal of supervisory or regulatory decisions may be deferred to Tribunal.

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EU-members (Contd.)							
Sweden	Director General (D-G)	**Board** **D-G** sets its operational goals to achieve overall objective (without consulting government). **D-G as Chair**, and Deputy Governor of CB and 9 members including representatives from parliament, CB, and financial industry. The Board convenes extra shareholders' meetings; also issues permits and restrictions, and important regulations that are not delegated to the D-G.	**D-G and Board** appointed by MoF. Term specified. Can be removed mid-term only for reasons specified in the law. Reason for removal publicly disclosed.	Approves the FSA's budget. Gives FSA an annual set of instructions, after consulting with FSA.	Modes of cooperation and of exchanging information are established in the law governing the confidentia-lity of information and the status of Govt. agencies.	Has regulatory power. Part of funding from government budget (government levies charges on supervised entities). Can issue/ withdraw licenses. Law prohibits day-to-day interference of the Govt. Salaries non-competitive with the private sector.	D-G appears before a parliamentary committee annually. Report on stability presented to the government and published. D-G initiates yearly consultations by giving government a draft of objectives. Accounts subject to review by the (external) Audit Office.

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EU-members (Contd.)							
United Kingdom	Executive Chairman, 3 Managing Directors	**Board + Panels** **Board** sets FSA's overall policy; not involved in day to day operations. **Non-executive** Chair plus 10 Non-executive members (the number of non-exec members must be more than executive members). Reviews performance (efficient use of resources), internal financial controls and remuneration of executive members; and prepares report on the discharge of its functions (included in Annual report to HMT). **Practitioner and Consumer Panels** consulted with regard to the activities of the FSA; support the FSA in its efforts to improve protection of consumers and practitioners as well as raising consumer awareness.	**Chair of FSA** appointed and removed by HMT. **Non-executive Chair (also Deputy Chairman)** appointed by HMT. No fixed term of appointment; reasons for dismissal need not be made public; **Non-executive members** appointed by Board. The non-executive members represent senior personnel from banking and other industries and academia.	HMT can direct the FSA to cover particular issues in its public Annual Report; establish whether supervisory resources are used effectively; periodically review the secondary legislation (and its boundaries) under which the FSA operates; launch a statutory inquiry into possible serious regulatory failure.	MoU between HMT, MoF and CB.	Funded by industry. Has regulatory power and empowered to grant and revoke licenses.	FSA submits annual report to HMT (and Parliam). FSA is required to hold an annual public meeting to discuss its report. FSA needs to publicly consult practitioners and consumers "on the extent to which its general policies and practices are consistent with its general duties". HMT may commission independent financial reviews of the FSA. Decisions may be appealed to a specialist tribunal.

Sources: ECB, IMF, and national authorities' websites.

1/ Countries in sample are those with banking supervision authority outside of central banks. The following abbreviations have been used throughout the table, unless otherwise stated: CB is Central Bank, FSA is Financial Supervisory Authority, Dy. is Deputy, PM is Prime Minister, Gov. is Governor, Govt. is Government, HMT is Her Majesty's Treasury, Parliam. is Parliament, Mngmt. is Management, MoEA is Minister of Economic Affairs, MoF is Minister of Finance, MoU is Memorandum of Understanding, Rep. is representatives/representing.

2/ Very little information available on Denmark FSA. N.A. refers to unavailability of information.

3/ Finland has two institutions responsible for supervision—the Finnish Financial Supervision Authority and Insurance Supervision Authority. There have been some recent amendments to the Act, but information on these is not available in English.