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Domestic interaction of external debt and foreign direct investment in Hungary

This study addresses the accumulation of external debt and the flow of foreign direct investment (FDI) jointly, and also strives to explore the internal interaction of these two global capital components on the one hand; and, on the other hand – in an unorthodox manner, even raising doubts – it attempts to apply some corporate funding principles in a macroeconomic setting, and tries to extend corporate analogy to the entire national economy regarding the in-flow, investment, and return of capital, carefully adhering to the limitations of the model.

THEORIES AND EXPERIENCE COLLATED BY INTERNATIONAL LITERATURE

International literature on external public debts lists a number of theories and hypotheses that shed light on connections between external debt portfolio and FDI flow. The *Table 1* below extracts only the most important ones; detailed descriptions were expounded in an earlier article *(Kuti, 2006)*.

Based on all the above, it is to be presumed that theoretic concepts and empirical approach-

Table 1

THEORETIC AND EMPIRIC BACKDROP OF THE CORRELATION BETWEEN EXTERNAL DEBTS AND FDI

Theorems, hypotheses regarding external debt	Theoretic, empirical correlation to FDI flow
Debt overhang	Aizenman's monolateral model (2005) Krugman's "fire sale FDI" concept (1998)
Debt intolerance (Reinhart et al. 2003)	Lower flow of global private capital (Evrensel, 2004) Higher ratio of FDI in global flow of private capital (Albuquerque,2003)
Hypothesis of original sin (Eichengreen-Hausmann, 1999)	FDI risks are growing too (Fernandez-Arias–Hausmann, 2001)
Problems of currency alignment	Debt service is counter-cyclic, FDI return is pro-cyclic (Lane-Milesi–Ferretti, 2000)

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es describing existing links between external debts and FDI are applicable to Hungary as well.

CORPORATE ANALOGY

A parallel can be drawn between the structure of corporate loan capital/share capital and the similar components of the economy's external financing structure, the external debts, the FDI portfolio, and stock portfolio investments. Based on the corporate model, the border between external and internal capital inputs runs between loan capital and share capital, but on the level of national economy there is – in addition to external capital structure – an internal funding structure where loan capital and share capital components ensured by fund providers alike are to be fund, which means it's not between the two capital components where a distinction between external and internal funds should be drawn.

One of the milestones in international literature on corporate financing is the theorem of capital structure irrelevance by *Modigliani* and *Miller* (1958), which was later redesigned by *Hausmann* és *Fernández-Arias* (2000) for the external capital structure of a national economy, saying the composition of the capital balance does not affect a country's net worth; but in reality no system of perfect conditions exists, which means the equity structure is indeed relevant, which in turn means that tax considerations, financial insolvency, liquidation costs, and non-perfect markets define the equity structure of a country. Taking the line of thought one step further, risks, liquidity, marketability, terms, contractual obligations, and other aspects in addition to the aforementioned define the funding forms selected by global equity providers, in other words these factors also decide the ratio of banking and commercial credits, investments in bond and stock portfolios, and FDI in the flow and accumulation of financial inputs.

The pecking order theory of capital structure offers a corporate analogy for implementation on the macro-economic level. The theorem sets up a priority for selecting financial input – the order of withheld profit, loan capital, and share capital – whose equivalent in the external financing inputs of a national economy are the order of foreign direct investment, foreign bond and foreign stock portfolio investments, according to *Razin* and co-authors (1998). The doubt arises, however, as to why the foreign direct investment, which, in the foreign-owned segment of the corporate sector, is the aggregate composition of a loan from a parent corporation, withheld profit, as well as new and old share capital, should jump to the top spot in the pecking order of capital structure on the macro-level, equalling to the position of reinvested profit in the corporate model? Only a partial answer is offered by *Lipsey's* observation (1999), saying that the role of withheld profit seems the most prominent within American and British direct capital exports, both economies having a long history in FDI, but it is not a universal phenomenon, and not true for all periods of time, or for younger capital-exporting countries.

At the corporate level, one of the focal points of project selection regarding capital budgeting principle is the requirement that the current value of future free capital flow, discounted by capital expenses, should exceed the value of initial investment. This could be translated into the external debt of the central budget in such a way that the discounted value of the future primary balance of the central budget should be equal to or bigger than the current net public debt to ensure solvency for public finance. According to another, wider, approach, it is the discounted sum of future foreign trade balances that should exceed the current total of net external debt because it is one of the criteria for a country's solvency. Similarly, the value of a share – and, by analogy, the aggregate

FDI – is represented by the current value of future cash flow. A macro-level projection of micro-level capital budgeting principle has been created by Hausmann and Fernández-Arias (2000) who argue that a discrepancy arises if corporate assessment is made by domestic or foreign investors when a corporation operates in a low-efficiency financial market and its access to international financing is limited only because its home country runs a poor debt rating because of a high debt. Domestic investors would set a higher discount rate and lower growth perspectives than capital budgeting calculations, whereas foreign investors may set a higher growth and a lower discount rate because they are not limited by the inefficiency of the local market or the volatility of the lending market of emerging countries. As a result, they say, domestic investors with limited access to capital input will sell their assets to foreign investors that can access international capital markets. This way FDI will help eliminate capital market inequalities, but will not be a reflection of an improving domestic environment.

In the system of corporate economy, acquired long-term funds are utilised as capital, financing project investments that play a key role in generating sales revenues. These funds are expected to meet debt obligations and shareholders' return requirements. At the level of national economy, long-term funds are not utilised as capital alone, but also as consumption that will never cover capital encumbrances. Within the national economy, the very existence of the social economic sub-system compromises the corporate financing principle of long-term funds that work as capital. The limitations of the expenditures of the social economic system are set by the burden-bearing capabilities of real economy.

Just as the perspectives are influenced by sales and operating profit in particular, so is the sustainability of the national economy's external funding structure dependant on exports and trade balance, although domestic fund owners also contribute to the latter two. Both at micro- and macro-level it is a criteria of equity return that operating profit or trade balance should cover interest and dividend obligations to be paid to fund providers. At this junction, however, again emerges a point where the corporate financing parallel cannot be applied completely, for interest payment on external debt is made from exports – from sales income, in other words – which are not burdened by imports and some other expenditure prior to executing debt repayment obligations. This discrepancy, however, should not divert the attention from the fact that the interest coverage ratio of the corporate model – operating profit per interest payment, or trade balance per interest payment at the macrolevel – is an important efficiency criteria for a "corporate giant". Both on the corporate and national economy level there exists a requirement for return opportunity cost, which the corporation/national economy has to produce as yield at the existing risk level in order to prevent fund providers from seeking alternative, and more promising, investment opportunities.

Certain corporate financing principles – such as the residual nature of share capital in the pecking order in the satisfaction of creditors' claims in the event a firm is terminated without any legal successors; creditors' obligation to protect shareholders' equity; priority of interest payment over dividend payment – are impaired at the macro-level by the multi-entity universe and fractured ownership structure of the national economy. The limited applicability of corporate financing principles is also caused by the fact that due to lack of enforcement of international laws a government may expropriate foreign investors' assets, deny external debt repayment, or make distinctions between foreign and domestic investors (Eaton-Gersovitz, 1981, 1982, Cole-English, 1991, Cole-Kehoe, 1995, Bulow-Rogoff, 1989).

For a corporation to lose access to financial market could mean the end of its business existence, but at the macro-level losing the confidence of international equity markets will not lead to an end of the national economy; it only intensifies its compulsion to use internal funds, increases the scarcity of financial inputs and the urgency of organic growth, and also intensifies social tensions.

EXTERNAL CAPITAL STRUCTURE OF THE NATIONAL ECONOMY

Analysis of macro-level financing structure provides ample background to take the corporate analogy one step further. Similarly to the ratio of corporate loan capital and shareholders' equity, the following quotients are suitable for describing capital adequacy of the national economy:

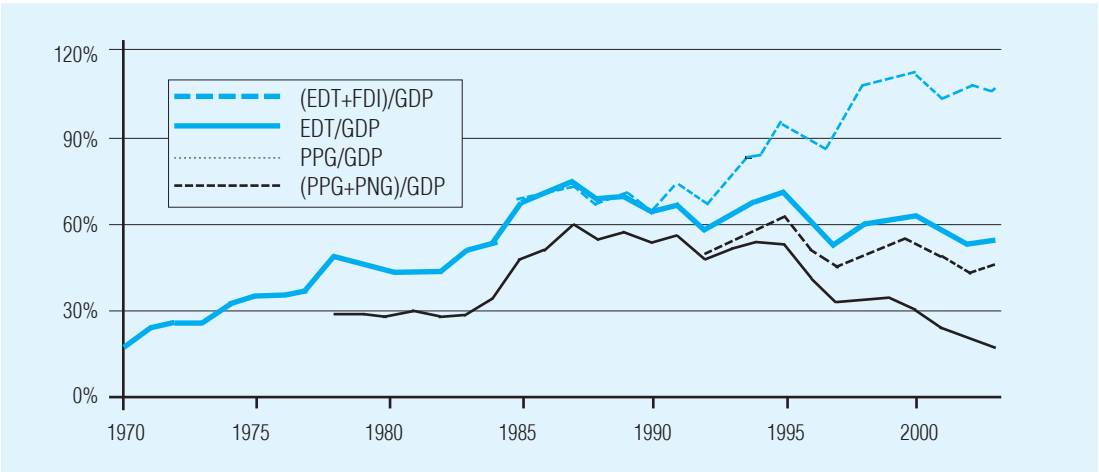
- external debt indicator: the quotient of gross external debt and GDP (EDT/GDP),
- gross foreign direct investment in terms of GDP (FDI/GDP), representing the ratio of share capital that finances the national economy[1],
- the ratio of total external capital adequacy is the sum of the previous two indicators [(EDT+FDI)/GDP], which reflects the combined level of financing by loan capital and share capital. The justification for the ratio of total capital adequacy comes also from the fact that external debt and foreign direct investment are various contractual forms of the very same capital-type financing input, but with different conditions *(Chart 1)*.

The gradual rise of total capital adequacy ratio indicates the key role of external funds in eliminating the country's modernisation deficit. The size of the gap between domestic savings and investments as well as the difference between generated and utilised income define the demand for external funds, which means that a country's income absorption can only be raised above its income generation when the difference is financed from external

Chart 1

TOTAL EXTERNAL FINANCE IN TERMS OF GDP

(as a percentage of GDP)

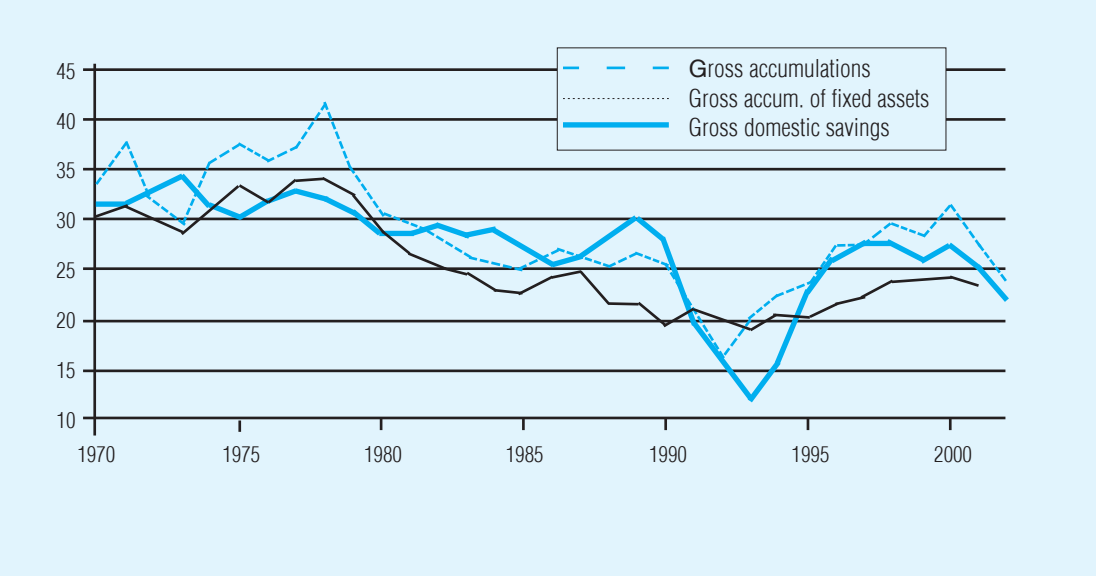


Source: UNCTAD; between 1978 and 2003: World Bank – World Development Indicators, between 1970 and 1977: Economic Commission for Europe: Economic Survey of Europe in 1990-1991, page 250; Author's own calculation.

Note[2].

Chart 2

GROSS ACCUMULATION AND GROSS DOMESTIC SAVINGS
(as a percentage of GDP)



Source: World Bank – World Development Indicators

sources *(Chart 2)*. Since 1970 to present day, it has been during the waves of investments in the '70s, which were financed through borrowing heavily abroad, and also of the investment "boom" related to FDI influx in the '90s that gross accumulation ratio substantially exceeded gross domestic savings ratio. Abandonment of the government's role in investment funding in the real economy and investment-intensive activities of FDI providers indicate that the relation between the two global capital components in this scope is one of interchangeability, as a result of which it is no surprise that a very low correlation was evident between investment ratio and gross domestic product between 1960 and 1996, according to *Bélyácz* (1999), while in fact the trend of gross domestic accumulation adjusted to the internal utilisation of GDP supplemented by external input-by FDI, in other words.

It was evident in the '70s and '80s that the level of consumption adjusted to changes in the access to international funds with a lag, because the state could intervene in investments much more directly than it could in consumption. External funds involved in the country's fast-growing debts in the '70s and '80s financed state project investments directly, as well as corporate investments through subsidies, and consumption and welfare expenditures both directly and indirectly. Since the transition to market economy the government's overspending and households' consumption have been the main culprit in the increase of external debts.

Obviously, debt service problems arise when borrowing is spent on financing income, supplementing public sector income by financing investment development-instead of developing the economy, especially export capacities (Eichengreen–Bordo, 2002). Hungary also faced these problems when surging loan rates, reduced loan terms and grace periods, unfavourable maturity structure of existing loans[3], foreign exchange adjustment problems related to exports[4] triggered financial crisis in

1981–1982. No debts were rescheduled de jure, but de facto the endeavour to finance maturing loans from new debts continued (Lőrincné, 1992) against a backdrop of a so-called quiet rescheduling, which meant replacing short-term debts with longer loans with more favourable conditions, and also prepayment of higher-rate debts through bond issues of more favourable interest rates (National Bank of Hungary, 1994). Hungary experienced an example of this problem just recently, in the mid-90s when a crisis was triggered by collapsing Eastern markets, underdeveloped western exports orientation, and the highest debt service per GDP in Central Eastern Europe.

The debt trap that emerged at the end of the era of centrally planned economy and during the period of transformation crisis represented the upper limit of loan capital influx with the highest debt ratio per GDP of the past 35 years, high interest premiums, increased lending activities of official lenders, extraction of banking loans and commercial credits, slumping investments, and slowing GDP dynamism. These are among the symptoms of debt overhang. The strategy of quiet rescheduling in the '80s, then of receiving FDI from the nineties can be interpreted as a response to the problem of maturity adjustment in the external funding structure. After debt crises, the main channels of external finances acquired through banking loans and/or bond issues may close up, as a consequence of which the only way to ensure external funding is FDI import or debt conversion (Edwards, 1990).

In addition to scrutinising the external capital structure of the national economy, it is also important to review the domestic interaction of these two global funding components. It was not only the country's increased debts that played a key role in the influx of foreign direct investments, but vice versa, FDI itself has contributed to Hungary's ballooning debts these days.

FDI INFLUX GENERATED BY EXTERNAL DEBT

High external debt portfolio and the debt service obligation thereof played a decisive role in opening toward foreign direct investments. Increasing debts and the presence of debt overhang has been a significant but not exclusively predominant factor of foreign direct investment influx. Hungary's period of large privatisation projects meet the criteria of *Aizenman's* model (2005), *Albuquerque's* hypothesis (2003), and *Krugman's* "fire sale FDI" theory (1198) alike. In line with the pecking order theory, as loan risks were rising so was Hungary's dependence on foreign direct investment intensifying, or in other words, those of a pecking order on international capital flow elaborated by Razin and co-authors, foreign direct investment that landed in Hungary after the period of centrally planned economy has taken its place in the pecking order – as described by the theory – after the opportunities of expanding loan capital funding had been used up in the eighties.

Reflecting back on the corporate model, switching between loan capital and share capital is made possible by convertible bonds, and this feature makes it easier for a corporation in the course of a new transaction to issue new bonds to supplement existing ones. Held by the issuer, the call option attached to convertible bonds ensures that the swap is executed. Likewise, from the aspect of the capital structure of Hungary's national economy, a privatisation promise given to the Western world during a crisis in the centrally planned economy era can be regarded as a situation where an opportunity – of an indirect and partial nature – had arisen beyond the country's gross external debt to convert it to share capital and where the call option attached to this opportunity was utilised when the government launched institutionalised privatisation projects that were open to foreign bidders as well. However, the analo-

gy to the corporate model is not working at this junction in that privatisation prices were defined by supply and demand when the option was called. Selling corporations owned by the Hungarian government to foreign buyers was implicitly a debt/share capital swap deal (Mihályi, 2000).

FDI-INDUCED EXTERNAL DEBT

Debts generated by foreign direct investment could be pinpointed in several areas: First, in the debt service impacts of rising potential in exports on the back of FDI influx; secondly, in the increase of debt-based fund flow generated by FDI; thirdly, in government solutions given as response to polarisation caused by FDI; and fourthly, in FDI coverage of current account balance; and, lastly, in the disruption of FDI's self-financing circle of flow.

Exports and debt service

The escape route from the grave debt overhang situation that emerged early into the period of the transition to market economy was made possible by foreign investors that triggered export-driven economic growth[5]. The country's relative debt service indicators improved as exports boosted on the back of foreign direct investments. A dramatic fall in the total external debt indicator in terms of exports was driven by the simultaneous impact of spending privatisation revenues partially on debt repayment and of a rising dynamism in exports from 1995. Consequently, foreign direct investments helped eliminate the debt trap that had been inherited from the '80s, thus the burdens of a relatively high debt portfolio – with gross figures having grown again constantly since 1997 and the net figure surging from 2001 – became lighter. Generated by foreign direct investments, dynamism in exports and changes in the external capital structure, however, improved the country's debt service and GDP-related debt ratings so much that a more favourable country rating itself contributed to the restart of the debt rise. This train of thought partially comprises the scope of phenomenon described *by Lane – Milesi-Ferretti* (2001).

Achieved by foreign direct investments, exports as debt services capacities are a weak spot, because-due to the European Union's accounting for 72 per cent of Hungary's foreign trade in goods (KSH (Central Bureau of Statistics, 2006), and a powerful corporate- and sector-level concentration of exports as preferred by FDI (Éltető, 1999)

- Hungary's maintaining or losing its debt repayment abilities depends on favourable or unfavourable developments in Western European economies,
- on some key export-oriented corporations' intention to stay in the country or relocate, and
- on a boom or a slump in certain sectors.

The vulnerability of debt service abilities has not been eliminated despite FDI's role in export-orientation. Besides, exports boom generated by FDI could not alter the fact that the macro-level interest coverage ratio – which should be regarded as the quotient of foreign trade balance and interests paid – has been negative for most of these past 30 years, or did not even reach break-even point in short periods of export surpluses.

FDI-related debt-type funding flows

Another link between foreign direct investment and external debt is indicated by surging forex loan portfolios, both corporate and retail, of foreign-owned banks in Hungary, and by the development of FDI-related loans provided by foreign parent companies.

Changes in the scope of owners in the banking sector are reflected well by the fact that by 2001 the ratio between the assets of banking affiliates under foreign control and the total banking assets of the recipient country – Hungary's penetration ratio – was 88.8 (UNCTAD, 2004). Foreign ownership background, embedded in international financial markets, promoted an upswing in cross-border lending transactions. Monetary institutions other than the National Bank of Hungary accounted for just EUR 2.2 billion in 1995 in the country's external debt but recorded EUR 18.8 billion in 2005, which in 1995 represented barley one-tenth of gross debt, but nearly one-third in 2005. Accordingly, the external debt of the banking sector had grown by a multiple of more than eight in ten years.

The average credit score of foreign-owned corporations substantially exceed that of Hungarian-owned companies. Taking a considerable corporate sample, *Balla* (2005) established that towards the end of the period between 1992 and 2001 companies with foreign majority ownership were using much more loans – especially long-term loans – than Hungarian companies, and had better chances of accessing international banking loans. Regarding the entire Hungarian corporate sector, however, part of fixed assets were provided as short-term liabilities when financing investments – breaching the principle of maturity compliance in the process – due to scarcity of long-term loan capital (Bélyácz, 2005). These research results clearly show that while Hungarian companies were limited in their goal to increase capital adequacy – in the form of share capital or loan capital – due to the country's intensive external debt, foreign-owned corporations could overcome disparities in the Hungarian capital market by international banking loans, loans from parent companies, and by profit retention; in other words foreign direct investment was one of the methods to substitute or replace a non-efficient capital market in Hungary as well.

FDI-related loans by parent companies also manifest a link between foreign direct investment and external debt *(Chart 3)*. Loans by parent companies are regarded as loan capital import with maturity whose extent amounted to nearly one-sixth of Hungary's total external debt portfolio by 2005.

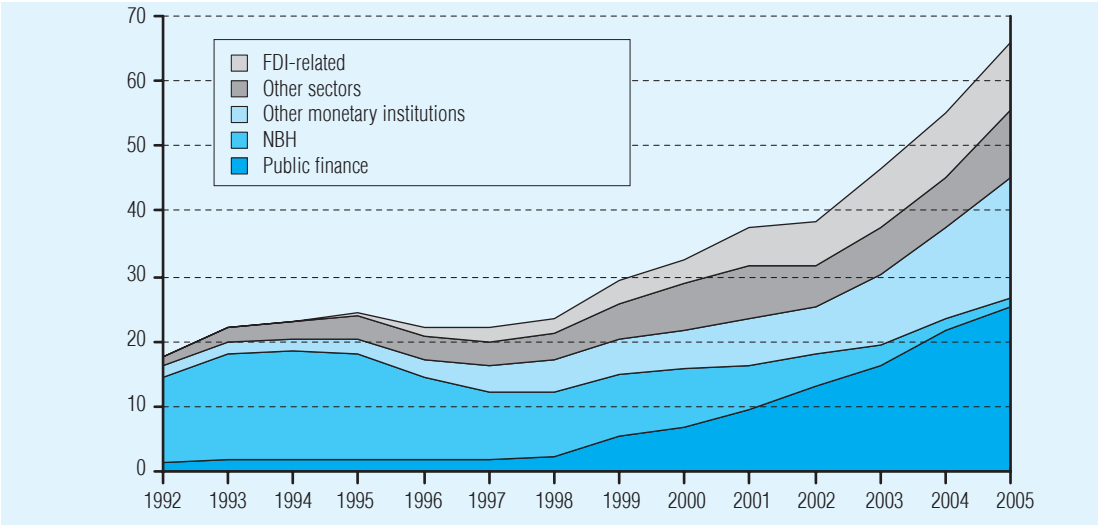
FDI-induced polarisation

The private sector, built upon the decisive role FDI plays, and the public sector of socio-economy live side by side with inevitable interaction between them. Apart from unquestionable results the FDI-based growth strategy achieved, income polarisation, social and regional inequalities have developed, which problems the government could only respond to via the central budget's redistribution system by making allocations that correct and supplement the operation of the market. This was what happened both in 2000–2001 and 2002–2003 when the government tried to alleviate existing tensions by preferring Hungarian-owned enterprises; by state orders; increasing the number and wages of public employees; raising the minimum wage; and by making a program-like increase in social benefits.

At this junction, the welfare effect – one of the special aspects of the link between external debt and FDI – is reached. In developing countries, when domestic economic players open their home market to foreign direct investment for fear of debt overhang and the resulting fleeing of capital from the country, a certain welfare benefit from the aspect of the economy evolves, stemming from the workforce that are employed by multinational corporations in their green-field investments. Such comprehensive reforms actually shove part of a coun-

Chart 3

EXTERNAL DEBT STRUCTURE
(billion euros)



Source: National Bank of Hungary

try's debt service on taxpayers, in other words taxpayers provide implicit insurance for reforms (Aizenman, 2005). Another aspect is that the welfare effect is not in direct proportion to FDI increase, because profit repatriation may decrease the level of welfare, and even domestic investors may suffer losses in the return of their investments (Reis, 2001).

Unbalanced application of FDI-based development strategy and a low ratio of FDI's becoming organic in the Hungarian economy led to the fact that foreign direct investments, if only indirectly, played a role – through the indirect polarisation consequences of these processes – in the re-emergence of external debt increase.

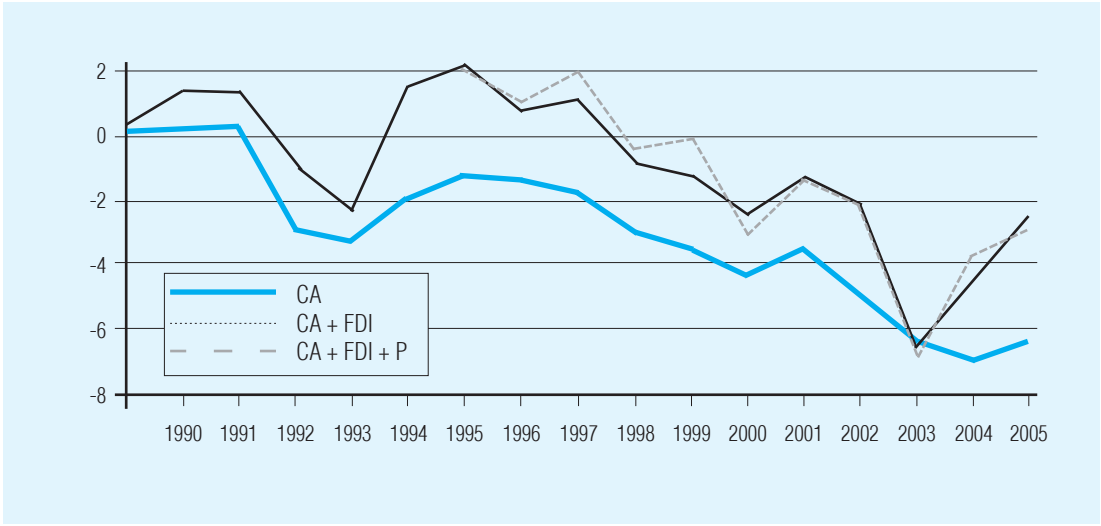
FDI-coverage of balance of payments of current account

Regarding the interaction between external debt and foreign direct investment, the balance of payments – including the balance-ruining capital costs of the external funding structure – is a significant factor, because it translates financing needs into numbers, which needs are financed also by the balance of FDI influx through the capital account.

In the period surveyed, the balance of payments was negative in most years, with the exception of some years when restrictions were in place and also at the beginning of the transformation crisis. In the years of centrally planned economy, the deficit was offset by loan capital import predominantly, but since the start of the market economy it has been partially or entirely covered by foreign share capital imports-the flow of FDI and stock portfolio investments-decreasing external debt *(Chart 4)*. "Direct capital imports impact the balance of payments of current account and the entire current account more whimsically than loan capital imports do", because interest expenditures are foreseeable, whereas FDI inflow and profit repatriation may surge or plunge (Erdős, 2003, page 190) from time to time. Since the nineties 2003 has been the first year when the current account deficit's certain FDI-coverage vanished, and this was the point

Chart 4

FDI COVERAGE OF CURRENT ACCOUNT DEFICIT
(million euros)

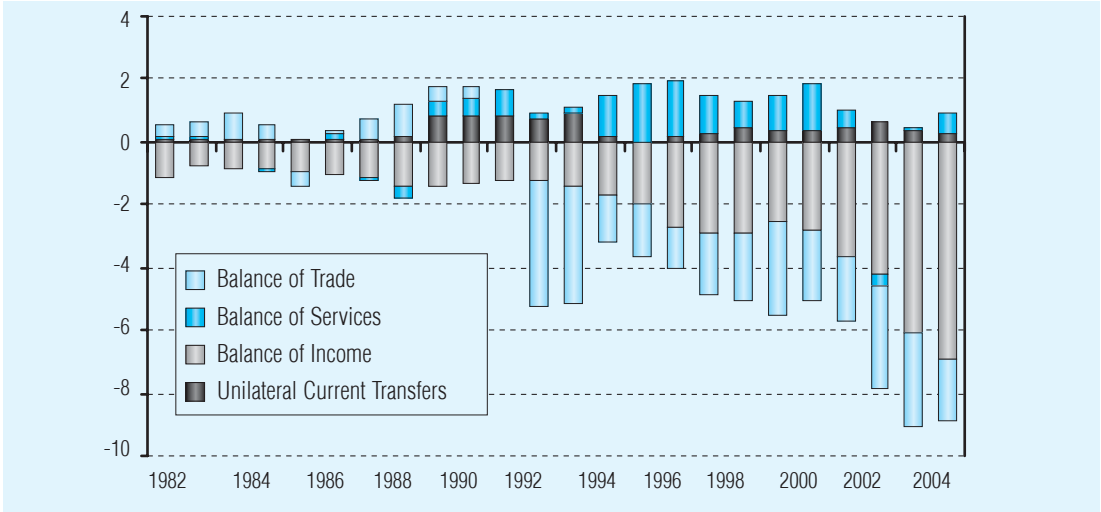


Source: NBH[6] Author's own calculation

when applying the annual FDI turnover as an accounting scheme was questioned. Upon scrutinising macro-economic vulnerability, *Krkoska* (2001) found a five-percent GDP-proportionate gap between current account deficit and FDI as the most convenient sign of early warning in the Central European region, while other indicators according to him did not provide such a barrier. In 2003, this ratio was more than 5 per cent in Hungary, apparently supporting Krkoska's theory, especially in light of three forex crises that had happened, under-

Chart 5

COMPONENTS OF CURRENT ACCOUNT DEFICIT
(USD billion)



Source: IMF International Financial Statistics

mining the confidence of international financial markets.

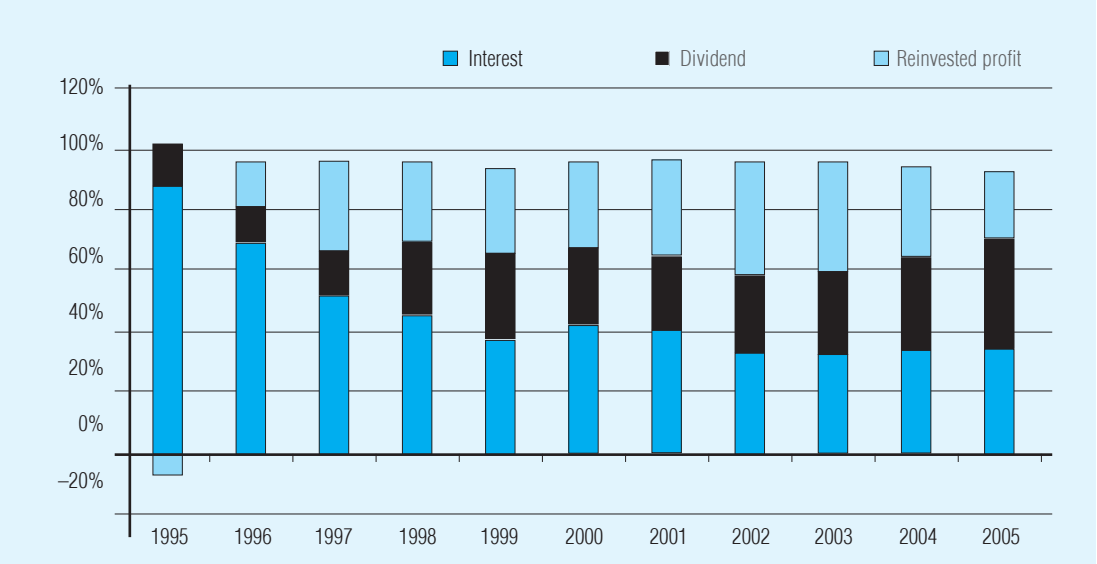
In the account of income within the current account, interests paid on external debts – which include loans from parent companies – and dividends paid on foreign direct investments, and reinvested profits are represented jointly. Should the trade surplus be unable to compensate for the amount of the interest to be paid to international lenders and of the profits repatriated by foreign shareholders, then the capital costs of external input create by themselves a financing need when the balance of unilateral current transfers or the annual inflow of foreign direct investments do not provide cover.

Chart 5 above shows that the balance of income related to the external capital structure has by now become one of the decisive factors of current account deficit. The chart has a slight distortion because reinvested income is financed automatically through the capital account. Until 1995, capital costs related to external debt had been decisive, but in 2005, interests, dividends, and reinvested income contributed to income at a gross rate of 29%, 36%, and 32%, respectively, and 36%, 34%, and 24% in net figures. *(Chart 6)*.

There arises an intriguing question: How large part of the current account balance can be attributed to foreign direct investment, and what ratio of it is financed by FDI inflow through the capital account? It's rather problematic to translate the answer into numbers because it is hard to define the FDI-related financial outflow through patent and licence fees and other business services, but obviously these entries deteriorate the balance further. For recipient economies, foreign direct investment is an external impact that creates benefits in technology transfer, enhancement of corporate management culture, marketing potential, access to external markets, improvement of human capital, and in many other scopes. Being aware of it, external fund providers try to internalise advantages that stem from the spillover effect in the form of advisor fees, licence fees and transfer prices in addition to profit repatriation.

Chart 6

CAPITAL COSTS IN THE EXPENDITURE-SIDE OF INCOME



Source: NBH. Author's own calculation

Based on *Table 2* below and despite deficiencies, it can be established that, from the aspect of capital flow, FDI is a circular flow that cannot cover, by the annual share capital import, the combined outflow of trade deficit and income balance it has caused, not to mention other outflows. This statement is true even when not "the expenditure side" but "the balance" of the current account and the capital account is regarded.

The expenditure side of income included in the current account ensures the opportunity to compare the usage fee and return of foreign direct investment. Based on *Table 3* below, two tendencies emerge: On the one hand, profitability in proportion to both share capital and share capital plus ownership loan has been decreasing since 2002, and on the other hand capital costs represented by dividend and ownership loan interest have increased by now. In 2005, for example, shareholders' capital costs account for nearly 60 per cent of ROCE (Return On Equity Employed).

CONCLUSIONS

Despite deficiencies apparent in the analogy, a comparison between the external capital structure of a corporation and a national economy does have relevance from the aspect of capital adequacy, return on equity, and usage fee of capital.

The use of external finances and the upswing of the Hungarian economy have been closely related in the past decades. Since the early '70s a predominantly debt-based external capital structure had been in place, but at the end of the '80s it was replaced by a regime based on debts and share capital. When the engines of debt-fuelled growth had lost power, the accumulation of foreign direct investments took over the powertrain. As a result, the national economy's performance improved, but the external debt stemming from persistent public overspending and the efficiency deficit of socio-economic sub-systems outside the real economy was decreasing in terms of GDP – relative to PPG/GDP ratio – from 1995, which allowed the government to delay modernisation in these sub-systems.

A special, bilateral interaction among the global capital components surveyed here is evident in the form of debt-generated inflow of capital investments and FDI-induced external debts. Hence, foreign direct investment is a two-sided weapon in the country's debt management, because due to the generated export activ-

Table 2

FDI INPUT FLOW

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Current account											
A) FDI trade deficit	–256	–254	–211	–184	–251	–700	–538	–276	–282	,,	,,
Repatriated profit	–44	–56	–98	–200	–244	–261	–281	–317	–317	–457	–592
Ownership loans	–4	–3	–3	–8	–6	–13	–15	–34	–25	–72	–82
Reinvested income	25	–78	–247	–251	–268	–297	–373	–463	–477	–459	–410
B) FDI income	–23	–137	–348	–459	–518	–572	–669	–813	–819	–988	–1084
Capital account											
C) FDI inflow	594	413	673	580	631	690	661	745	212	738	1273
Uncovered balance (A+B+C)	**–872**	**–803**	**–1 232**	**–1 223**	**–1 400**	**–1 962**	**–1 868**	**–1 835**	**–1 312**	,,	,,

Source: KSH [Central Bureau of Statistics], NBH; Line "B" and last line calculated by the author[7].

Table 3

CAPITAL COST AND RETURN OF FDI
(percentage)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Dividend/share capital	3.5	3.3	3.3	5.6	4.9	4.8	4.2	4.4	3.9	4.7	5.2
Interest/ownership loan	2.9	1.1	0.8	1.4	0.7	1.4	1.0	2.0	1.1	3.0	3.1
Ratio of share capital	90.8	85.9	87.5	86.1	85.4	85.1	81.4	81.3	78.0	80.0	81.3
Ratio of loan capital	9.2	14.1	12.5	13.9	14.6	14.9	18.6	18.7	22.0	20.0	18.7
Weighted capital costs	3.4	3.0	3.0	5.0	4.3	4.3	3.6	3.9	3.3	4.3	4.8
ROE	1.4	7.6	11.7	12.6	10.8	10.5	10.6	11.3	10.0	10.0	9.3
ROCE	1.3	6.5	10.3	10.9	9.2	8.9	8.7	9.7	8.5	8.7	8.2

Source: NBH; Author's own calculations[8]

ities Hungary's openness to external markets and debt-related burden-bearing abilities have increased, her debt rating has improved; and owing to FDI, external funds – which mostly are free of foreign exchange mismatch – have been included in the external capital structure. However, due to corporations owned by foreign entities either fully or partially, the vulnerability of the country's export potential has increased, and through this scope of the corporate sector the fragility of the country's debt service abilities has intensified. Also, the inflow of foreign direct investment itself has become a debt-generating factor through ownership loans, the banking sector's external debts, and the indirect channels of regional and income-based disparities.

Despite a never-before-seen extent of gross foreign capital inflow, accounting for 143 per cent of GDP[9] in 2005, the country's propensity to accumulates debts has not changed, some components of which-including a persistent trade deficit, the total capital costs of the external financing structure, including interests and dividends; consumption; excessive redistribution by the state-have remained unchanged despite the fact that foreign-owned companies presently account for 75% of Hungary's exports, and that the capital costs of external capital structure has undergone an internal restructuring.

In the past more than 30 years, external debts have mostly failed to be utilised as capital, for they were not used to finance efficient investments but consumption in the '70s and '80s, and mostly consumption in the nineties. As a contrast, foreign direct investment has become capital employed as it financed investments and boosted exports that ensured profitable operation. Thus, the return characteristics of these two global capital components differ: Foreign direct investments are capable of providing for their own capital costs, but the control over the growth produced by them is in the authority of foreign capital providers within the FDI's closed financing flow, forcing the state to acquire additional funds by loans alone.

NOTES

1 In respect of shareholders' equity, stock portfolio investments are disregarded here.

2 PPG = public or publicly guaranteed long-term debt, PNG = private, non-guaranteed long-term. The vertical broken line indicates a break in the homogeneity of data series.

3 Based on World Bank data, nearly 40% of total external debts existing in 1978 were due within a year.

4 Fourfold exposure due to USD/RUB and RUB/USD conversion, USD exports and imports, RUB exports and imports (Adósság… [Debt…], 1992).

5 Mihályi (2000) mentions the role of the commitment made by internationally renowned experts-Béla Balassa and Nicholas Kaldor – in favour of export – driven growth in formulating "open doors to FDI" principle. They established that capacities built for producing high-quality, low-price goods represent no guarantees for finding markets for these goods, and also underlined that the fastest-growing sector of world trade was commerce within industry, but any entity had to be part of the international sales networks operated by multinational corporations in order to reap these benefits.

6 Notes: CA = Current account, FDI = balance of net FDI-flow excluding other capital, P = balance of portfolio investment representing ownership. The vertical broken line refers to changes in the methodology to the ESA95 standard, hence the year 1995 is recorded twice.

7 Notes: Only the expenditure side of the current account is included in the calculations. Line "A" represents trade turnover in goods exclusively generated by FDI; line "C" does not include any other debt-generating capital.

8 The ratio dividend/share capital – as a type of dividend ratio – is the quotient of the expenditure entry of "dividend and distributed income" in the current account and the country's "shares, other shareholdings, and reinvested income" represented by direct capital investments of foreign entities. Similarly, the ratio interest/ownership loan – as a type of interest rate – is the quotient of the expenditure side of FDI-related "other income" and the portfolio of "other capital". The percentage of "shares, other shareholdings, and reinvested income" in foreign capital investment deployed in the country represents the ratio of share capital, and the percentage of "other capital" accounts for the ratio of loan capital. The weighted capital cost is the sum of the dividend ratio weighted by share capital ratio and the interest rate weighted by loan capital ratio. ROE (Return On Equity) is the quotient of the expenditure side of "dividend, distributed income" and reinvested income and the gross total of"shares, other shareholdings, and reinvested income". ROCE (Return On Capital Employed) is quotient of the expenditure side of dividend, distributed income, reinvested income, and other income and the gross total of shares, other shareholdings, reinvested income, and other capital.

9 Including the total foreign debt portfolio, which encompasses the figures of foreign capital investments, portfolio investments, and other debts.

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