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SUMMARY

of the Audit on the Development Project Metro Line 4 (1023)

In accordance with its annual audit plan, the State Audit Office of Hungary (SAO) completed the audit of the development project of Metro Line 4 covering the period from 2002 to 30 June 2010.

In the course of the audit the SAO primarily evaluated whether the construction of the first section of Metro Line 4, between *Kelenföld Railway Station* and *Keleti Railway Station* would be completed following the preparatory phase by deadline, within the planned limit of expenditures in accordance with the contracts; and whether the planned financing resources would ensure the implementation of the investment. The audit did not cover the examination of public procurement procedures related to the investments and the payments transferred through the Hungarian State Treasury from regularity aspects. The construction of the first section of Metro Line 4 is in progress, thus the audit cannot provide an answer to questions concerning the final costs and the utilisation of the development project.

According to the plans, the investment will contribute to the development of public transportation in the capital city of Budapest by the rapid and high standard transport of more than 400 thousand passengers daily. At the same time, the positive effects will prevail only with some delay. The construction of the P+R (park and ride) facilities of less capacity than originally planned (300 parking spaces instead of 1,500) will limit the possibilities of passengers arriving by car from the conurbation to use the metro.

During the implementation period of the project, the sources of financing were ensured. The launching of the project was made possible by the National Assembly by passing the bill on the state support of the first section of Metro Line 4 (metro act), thus by providing the financial resources. The amount of state subsidy for the construction of the first section of Metro Line 4 was a total of HUF 153.9 billion without VAT and at 2002 prices. By the metro act, the Civil Code was also amended, which specifies that the State should fulfil its liabilities assumed under contract even if there is no cover for the project in the central budget. By concluding the financing agreement, state funds were available from 2004. In order to fulfil the financing obligations, the Capital City and the State concluded a credit agreement in 2005 with the European Investment Bank (EIB).

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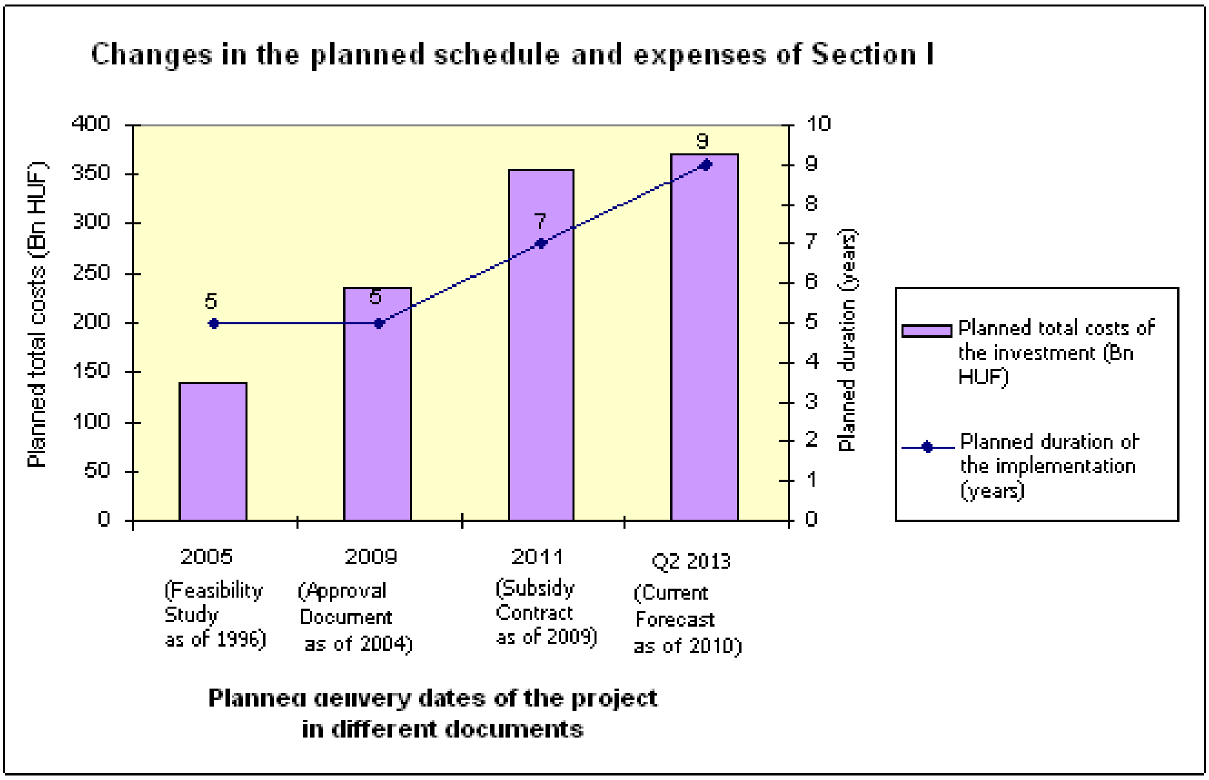
The Hungarian State withdrew the total amount of the credit limit available for the construction of the first section of the investment by March 2006 (EUR 472 million equalling HUF 119.5 billion), which was not proportional to the technical preparedness of the investment. The Municipality of Budapest utilised EIB credit amounting to EUR 58.5 million (HUF 15 billion) for the project, which was about 47% of the approved credit limit of EUR 125 million. The Hungarian State ensures the repayment of the EIB credit of the Municipality of Budapest by undertaking guarantee.

From the end of 2008, the sources of financing have basically changed. Based on the September 2009 decision of the European Commission, subsidies amounting to EUR 728.53 million can be utilised from the Cohesion Fund for the financing of the first section (HUF 180.8 billion according to the amended Subsidy Contract), which is 76.6% (HUF 236 billion) of the accountable expenditures. The EU subsidies are less than the original application by EUR 175 million (HUF 43.6 billion) as the EU does not support 11 contracts due to the irregularities in public procurement procedures.

According to an international comparative study ordered by the DBR Metro Project Directorate, the implementation costs of constructing 1 kilometre of the first section of Metro Line 4 amount to EUR 214 million, and based on the above, the Project Metro Line 4 is the second most expensive in comparison to 10 other European metro projects. This is also influenced by the fact that the first section is constructed with short distance between stops, the costs of the architectural solutions of constructing single-room stations exceed the average costs, and the capacity of the vehicle station meets the vehicle demand of the second section as well.

Besides the supervision of the Capital City, the investment is managed by the DBR Metro Project Directorate of the Budapest Transport Company. The Capital City accepted the approval document of the investment in September 2004. According to this document, the deadline for completing the first section of Metro Line 4 was the end of 2009, and the current costs of the project were determined in an amount of HUF 236.5 billion. The project is not going to be completed by the set deadline. According to the last schedule, the metro should begin its operation in the second half of 2013. According to the current predictions, the current costs of the project are expected to amount to HUF 370 billion.



In August 2010, the Capital City planned to amend the approval document of the project, which included the deadline of 31 December 2009 for the completion of the investment, but this deadline was not met. The Capital City set this deadline without taking into account the current status of the technical preparations, which means that the building permits and the building sites necessary for the implementation were not entirely available by 2006 when the works contracts were concluded. As a consequence, the construction of the tunnel at the *Kelenföld* starting point began with a delay of 6 months compared to the original plans due to the fault of the investor. As a result of the delay in the metro construction works, the duration of traffic diversions and closure of roads in the areas affected by the construction of stations and the related investments exceeds the originally planned durations. All the above presented and present traffic management problems in the Capital City for a longer period, and this involves additional social costs.

The HUF 133.5 billion increase (56.4 %) in the costs compared to the current costs of 2004 fixed in the approval document of the first section of the investment was caused by the following factors: The local governmental developments and reconstructions supported also by the EU have been embedded in the investment costs in the amount of HUF 39.5 billion (e.g. the reconstruction of *Fővám Square*, *Baross Square*, etc.). Following the architectural tendering procedure launched by the Capital City and DBR Metro Project Directorate, the structure of the metro stations was modified from the originally planned multi-level structure to single-room stations. As a consequence, the costs of building the external structure and internal installations of the stations increased by HUF 44.8 billion. The project costs contain reserves amounting to HUF 31.4 billion as a cover for cost overruns. Ensuring inter-modality at the *Kelenföld Railway Station* resulted in a cost impact amounting to HUF 9.6 billion. The effect of the change in exchange rates resulted in the increase of the costs by HUF 6.4 billion. An additional growth was the consequence of the contract prices exceeding the preliminarily estimated engineer prices.

Within the framework of the technical preparations, time, value and cost analyses were not performed; the available professional risk analyses were not comprehensive and were not utilised.

At the time of the audit, it was impossible to determine exactly the expected total costs of the project and the date of completion as both were uncertain. Apart from the possible delay in the construction works of the metro, the fact that the official procedure of issuing type licences necessary for purchasing the metro cars has not been completed, also imposes temporal risks. In respect to investment costs, it represents uncertainty whether the available reserves offer an adequate cover for the extra costs due to the claims submitted so far by the contractors as well as to the changes issued by the investor and recommended by the contractors. On the one hand, the reason for this is that 40% of the claims submitted so far (close to 400 claims) do not contain prices, or are missing data. On the other hand, the determination of the final value of the claims supported also by figures could be made in three steps: the investor and the contractor agree, in the absence of such an agreement, an arbitration committee consisting of three experts decide, or if the parties do not accept this decision, the arbitration court makes the decision.

According to the contract strategy for the project (contract type and accounting method), the investment will be implemented by concluding 20 independent contracts, by applying the *'Plant and Design-Build'* FIDIC Standard Conditions of Contract, without general designer and general contractor. According to the contracts, if the costs of the claims approved and the changes ordered exceed the endorsed final amount stipulated by the contract, the contractor is obliged to cover the difference from other resources.

In the course of constructing the running tunnel, which is the leading technology of the project, the set cost and time targets have not been met. The construction of the tunnel was interdependent on the construction of stations, and it affected all the other construction phases. It also influenced the completion of the first section of Metro Line 4. The delay amounted to more than 126 weeks out of which 44 weeks arose due to the fault of the contractor – according to the 18 August 2010 opinion of the arbitration committee. By its delays, *Bamco*

Consortium exhausted the maximum amount of its obligation to pay indemnity (10% of the contractual price), which approximately amounts to EUR 20 million (HUF 5.6 billion) that has not been settled yet. The management of constructing the running tunnel was characterised by *'crisis management'*, without mutually approved scheduling and detailed budget, burdened by cooperation difficulties among DBR Metro Project Directorate, the Engineer (the organisation appointed for the engineering supervision of the construction), the firm constructing the running tunnel and the firms constructing the stations, in the absence of an integrated project schedule regarding the handover of the construction work sites.

The technological and economic preparation for constructing the stations was not adequate since the authorisation procedures and the preparation of the tender plans for the structural engineering of the stations were carried out simultaneously. The works contracts were signed without having final building permits. These permits were available for the individual stations by the 3rd to the 8th month following the conclusion of the contracts.

The greatest distance between two stations (1,438 metres) is between *Tétényi Road* and *Bocskai Road*, while the shortest route (399 metres) is between *St. Gellért Square* and *Fővám Square*, the average distance between stations is 744 metres. (In case of Metro Line 2 the shortest distance between stations is 598 metres, the longest is 1,775 metres, while the average distance between stations is 1,001 metres). The vehicles reach the planned final speed of 80 kilometres per hour at four inter-station sections out of the nine. In case of two sections of these, the vehicles can maintain this speed on a distance shorter than 200 metres. On five inter-station sections, due to the short distance between stations, the vehicles lag behind the aforementioned speed on the whole section. The acceleration interval – without periods of constant speed – is followed immediately by slowing down.

The Budapest Transport Company concluded contracts for the establishment of control and safety systems and power supply as well as for the procurement of metro trains in 2006, and it concluded a contract for the construction of tracks on the surface (in the depot) in 2008, which activities represent the final phase of the investment process. All the delays concerning the previous phases of the project accumulated and affected the period of performance of these three contracts. Consequently, claims for indemnity and overtime costs arose. According to the contract, the deadline for the establishment of the control and safety systems and the power supply was 25 April 2010. However, the contractor could not get to the construction work sites until the end of May 2010, due to the delays in the tunnel boring and the construction of the stations. Thus, the installation of equipment could not be started, although the produced equipment is continuously being delivered. The contractor initiated the payment of indemnity in an amount of EUR 37.2 million (HUF 10.4 billion) on account of overtime costs. The Engineer accepted EUR 8 million, which the contractor contests.

The procurement of metro trains takes place within the framework of a single agreement, but with individual contracts for Metro Lines 2 and 4. The single agreement represented risk from the aspect of placing the trains of Metro Line 4 in service. The authority responsible for issuing the respective type licences handled the administrative authorisation procedure for the metro trains of the two metro lines in a consolidated way, and suspended the administrative authorisation procedure of the metro trains of Metro Line 4 until the issuance of the final type licence of the metro trains of Metro Line 2. On 11 June 2010, the licensing authority terminated the suspension for Metro Line 4 and decided on continuing the procedure. The contract concluded for the procurement of the metro trains, contrary to the usual legal interpretation, expanded the concept of *Force majeure* to the obtaining of the type licences of the metro trains. In our view, the refusal of the authority to issue the type licences of the metro trains is a risk factor that has to be taken into account when concluding the contract, thus it cannot be regarded as a *Force majeure* event.

The payments for expert and advisory activities utilised by DBR Metro Project Directorate for the preparation and implementation of the project reached the amount of HUF 20.8 billion by 30 April 2010 that represents 10% of the total amount paid for the project so far. This amount also contains HUF 7.2 billion paid for Eurometro Ltd. responsible for providing project management and engineering services. The documents prepared by the experts revealed a number of problems and deficiencies in respect to the contract system, the amendment of the contracts as well as the management and control of the project, but these documents have only been partly utilised. The activities of DBR Metro Project Directorate have been supported by Eurometro Ltd. from 1998 as project management adviser, also performing duties of the FIDIC engineer. Eurometro Ltd. undertook the advisory and engineering tasks related to the implementation of the first section until 31 March 2011 for the amount of HUF 2.9 billion and EUR 3.5 million, respectively. By the amendment of the financial schedule, the total amount allocated for the first section was paid by 31 March 2010.

The financing agreement and its amendment laid down the rights of the State to control, but limited these rights, basically, to the public procurement decisions and the financing plan by determining the range of decisions the investors have to submit to the State. This limited control position is not adequate for the comprehensive state control of the investment project.

According to the EIB credit agreement concluded by the Capital City, as well as the investment contract concluded between the Capital City and the Budapest Transport Company, the power of control of the Capital City and the Budapest Transport Company appointed by the former (regarding payments and commitments) should have been exercised via an independent control engineer, however, no commission conract was concluded to perform this task. Thus the performance of independent technical control and the independent control of the activities of the Engineer are not ensured.

According to the relevant government decision, the total costs of constructing the first section and the second section between *Keleti Railway Station* and *Bosnyák Square* was HUF 264.5 billion at 2002 prices without VAT. According to the statement of DBR, the planned costs of Metro Line 4 (first and second sections together) amount to HUF 537.0 billion at current prices.

Based on the findings of the audit, among others, the SAO recommended the Government to initiate the amendment of the financing agreement in order to promote the strengthening of the technological-economic and financial control positions of the State. In addition, the SAO recommended the Government to initiate the supplementation of the contract with the following: the Capital City bears liability for paying back state subsidies if it privatises the Budapest Transport Company or if any facilities of the investment project constructed from state subsidies would be alienated by the company.

The SAO recommended the Mayor of Budapest to take measures to have the Budapest Transport Company review the conditions of the works contracts (indemnity deadlines, date of access to the work sites and overtime costs) and ensure the harmonisation thereof. The Mayor should commission an Independent Control Engineer without delay, and eliminate the contradictions among the approval document, the investment programme and the concluded contracts.

In the course of auditing the Metro Line 4 investment project, several irregularities revealed by the auditors makes it necessary to clarify issues of criminal responsibility. Thus, the Legal Department of the State Audit Office of Hungary made charges against unknown perpetrators in relation to several acts because of the well-founded suspicion of misappropriation. The pecuniary losses of the Hungarian State, respectively the Municipality of Budapest caused by misappropriation arose from public procurement procedures conducted irregularly, payments being not in proportion with the implementation, as well as a practice of concluding contracts irresponsibly, causing obvious and foreseeable damages. The State Audit Office of Hungary submitted the charges to the Prosecution Service of Budapest.