

The cost crisis of 1876 and the refinancing

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The revelation came in 1876. After the redesign of the ramps and the first years of experience with the tunnel, Hellwag produced a new estimate of the cost to complete. It showed that the budget of 187 million francs would be exceeded by about 102 million francs.¹ The overrun thus amounted to more than half of the original estimate and was roughly equal to the whole private capital of the company. The news fell into a market that was already depressed. The Swiss railway boom of the early 1870s had ended, the Nordostbahn was in crisis because of competition from the Nationalbahn, and the prices of Swiss railway securities had collapsed in the depression that followed the crash of 1873.² As Gotthard shares fell sharply, the company could not raise the missing sums on the capital market without new public support.

The crisis had a precise legal structure. The treaty of 1869 had fixed the subsidies, and none of the three states was obliged to pay more. The company's shareholders had subscribed a fixed capital and could not be compelled to pay more than their shares. The bondholders had lent against the security of a railway that did not yet exist and that would be worth little if it was never completed. Favre's contract covered only the summit tunnel. Favre himself was heading towards insolvency under the weight of the penalties, so that even his obligations offered little comfort. New capital could be raised only if the states increased their contributions. The states, for their part, would increase them only if the programme was reduced and the private side contributed as well. This was a classic restructuring negotiation, conducted among three governments, a company, its shareholders and its bankers, with Escher at the centre of all the relationships.

The negotiations took place at an international conference that met in Lucerne in June 1877 under the chairmanship of the Swiss Federal President Joachim Heer.³ Emil Welti, who had presided over the

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conference of 1869, again played a central role. His biographers credit him, next to Escher, with the largest share in saving the enterprise, which was threatened with financial ruin while it was still being built. Welti took part in the reconstruction conferences of 1877 in Lucerne and Göschenen, which led to a supplementary treaty dated 12 March 1878.⁴

The solution combined a reduction of the programme with new money. The additional capital requirement was fixed at 40 million francs. Italy and Germany each contributed 10 million francs of supplementary subsidy, Switzerland 8 million, and the company itself was to raise 12 million from its private investors.⁵ The rest of the overrun was absorbed by cutting the programme. The access lines from Lucerne to Immensee and from Zug to Goldau were postponed. They were built only in 1897, after a moratorium on railway construction had ended.⁶ The ramps were built with steeper gradients and tighter curves and with a single track, while the second track was left for later. The heavy engineering was simplified wherever possible. The German Wikipedia article on the company confirms the public part of this package, with supplementary subsidies of 10 million francs each from Germany and Italy and 8 million francs from Switzerland.⁷

The Swiss share of 8 million francs raised the most difficult domestic question. Until 1878 the Confederation had kept out of railway financing. The supplementary subsidy now required a federal contribution, because the cantons and companies of the Gotthard association could no longer carry the burden alone. After long debates, parliament adopted a compromise under which the Confederation contributed 4.5 million francs, while the remainder came from the Gotthard side and from the Nordostbahn and Centralbahn, which together provided 1.5 million.⁸ To win the votes of western and eastern Switzerland, the same law promised federal subsidies to future Alpine railways in the east and in the west. Opponents, many of them from the canton of Vaud, called the compromise a purchase of votes in the different regions of the country and launched a referendum. In the popular vote of 19 January 1879 more than two thirds of those voting accepted the so-called Gotthard compromise, and only three cantons returned a majority against it.⁹

The political cost of the rescue was high and fell on the promoters of the project. The Federal Council had to explain why public money was needed for a project that it had been told could be financed privately. Parliament had to accept a federal subsidy for a single railway, which contradicted the principle of private railway building established in 1852. The democratic movement, which had already broken Escher's dominance in Zurich (see Chapter D.V), saw its critique of the "Escher system" confirmed. Konrad

Kuoni stresses the irony that federal subsidies became necessary although the public had earlier been assured that private funds would suffice.¹⁰ In later decades federal subsidies for Alpine railways would become routine. The Gotthard compromise was the first step on that path.

Favre did not live to see the result. He died of heart failure on 19 July 1879 while inspecting the tunnel, several months before the breakthrough.¹¹ The delay under his contract had reached about ten months, so that the penalties drove the Favre family into bankruptcy.¹² The risk transfer embodied in the contract had worked in the narrow legal sense, because the contractor bore the consequences of the delay. In a wider sense it had failed, because a contractor who is bankrupt cannot pay. The company eventually had to bear much of the cost itself. Gustave Bridel took over the construction management in 1879 after the capital increase had been secured.¹³

1 Notes

1. Kuoni, “Der Gotthardbahnbau: Querelen und Opfer” (see above), on the disclosure in 1876 of an overrun of 102 million francs; Wikipedia (German), “Gotthardbahn-Gesellschaft” (see above), which states that the construction costs rose from the budgeted 187 million francs by an additional requirement of 102 million francs. ↩
2. HLS, “Ferrovia del Gottardo” (Bärtschi), Italian version (see above), which links the crisis of the company from 1875 to the explosion of costs, delays and the collapse in the value of Swiss railway securities during the economic depression of the 1870s; HLS, “Escher, Alfred” (Bürgi), French version (see above), on the crisis of the Nordostbahn in 1876. ↩
3. Hans Jürgen Rieckenberg, “Heer, Joachim”, *Neue Deutsche Biographie* 8 (1969), 192–193, via *Deutsche Biographie*, <https://www.deutsche-biographie.de/sfz28588.html>, which records that Heer chaired an international Gotthard conference in Lucerne in June 1877 and that his last work as federal councillor was a message on the additional subsidy for the Gotthard in 1878. ↩
4. Aufdermauer, “Welti, Emil”, NDB-online, and Oechsli, ADB 55, via *Deutsche Biographie* (see above). ↩
5. Bahndaten, “Gotthardbahn”, *Daten zu den Schweizer Bahnen 1847–1920*, <https://www.bahndaten.ch/content/bahnen-detail/85/gotthardbahn>; Wikipedia (German), “Gotthardbahn” (see above), with the same distribution. ↩

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6. HLS, “Ferrovia del Gottardo” (Bärtschi), Italian version (see above). ↩
7. Wikipedia (German), “Gotthardbahn-Gesellschaft” (see above). ↩
8. Wikipedia (German), “Volksabstimmungen in der Schweiz 1879”, https://de.wikipedia.org/wiki/Volksabstimmungen_in_der_Schweiz_1879, which gives the distribution of the Swiss share: 4.5 million francs from the Confederation, 2 million from the Gotthard side and 1.5 million from the Nordostbahn and Centralbahn together. ↩
9. Wikipedia (German), “Volksabstimmungen in der Schweiz 1879” (see above). ↩
10. Kuoni, “Der Gotthardbahnbau: Querelen und Opfer” (see above). ↩
11. Wikipedia (English), “Gotthard Rail Tunnel” (see above), on the date of Favre’s death; Meyer, “Durchbruch am Gotthard” (see above), on his death from heart failure in the tunnel. ↩
12. SBB Cargo blog, “Louis Favre” (see above). ↩
13. Wikipedia (German), “Gotthardbahn” (see above), on Bridel’s assumption of the construction management in 1879 and on Hellwag’s removal in 1878. ↩

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