

# The Political Economy of a Soviet Military R&D Failure: Steam Power for Aviation, 1932 to 1939

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## Abstract

By studying a Soviet R&D failure, the prewar attempt to create a new aeroengine technology based on the steam turbine, we find out more about the motivations, strategies, and payoffs of principals and agents in the Soviet command economy. Alternative approaches to the evaluation of R&D failure are outlined. New archival documentation shows the scale and scope of the Soviet R&D effort in this field. The allocation of R&D resources resulted from agents' horizontal interactions within a vertical command hierarchy. Project funding was determined in a context of biased information, adverse selection, and agents' rent seeking. Funding was rationed across projects and through time. Budget constraints on individual projects were softened in the presence of sunk costs, but were hardened periodically. There is no evidence that rents were intentionally distributed through the Soviet military R&D system to win trust or reward loyalty; the termination of aviation steam power R&D in 1939 despite the sunk costs they represented was timely.

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