The Development of the Construction of Shinkansen

1959 ~

Tokaido, Sanyo, Tohoku (Tokyo-Morioka), and Joetsu Shinkansen were mainly financed by loans with interest.

Privatization and division into six private companies of the Japanese National Railways (JNR) in 1987

~ Today

Other Shinkansens have been constructed in the form of public works projects with subsidies from the national government and local governments involved.
Construction schemes for the Tokaido and Sanyo Shinkansen

- **No special scheme** existed for Shinkansen construction.
- The construction costs were fully covered by **loans** with interest.
- For the Tokaido Shinkansen, a **World Bank (IBRD) loan** of $320 million was provided, which accounted for 8.6% of the total construction cost of $3.7 billion.
Construction scheme for the Tohoku and Joetsu Shinkansen

- Tohoku Shinkansen (Tokyo-Morioka) & Joetsu Shinkansen (Omiya-Niigata) were constructed by the JNR & Japan Railway Construction Public Corporation (JRCC) under the Nationwide Shinkansen Railway Development Law, enforced in 1970.
- Government funding was partially used for the construction costs; however, a large part of the costs were still covered by loans with interest.

Funding

- Government budget 13%
- Loans with interest 87%
For the sustainable operation of Shinkansen, the operator, JR, does not shoulder an excessive burden of railway construction costs. The tailored construction-operation separation scheme was introduced in 1997, which is subsidized by the Japanese government and local governments involved.

Construction-operation separation schemes

- JR (Operator)
- JRTT* (Constructor and owner of tracks)

<Financial assistance>

- 2/3 of construction cost: Japanese government
- 1/3 of construction cost: Local governments

*JRTT: The Japan Railway Construction, Transport and Technology Agency
Criteria for starting construction

- **Stable financial resources**
- **Profitability**
  
  Annual profit of operator $> 0$
  (average over the next 30 years after opening)
- **Investment effect**
  
  Benefit/Cost $> 1$
  (Effect of saving travel time, etc.)
- **Consent of JR**
- **Consent of the local government for terminating JR operation of the current conventional line**

* Based on the basic policy on construction of new Shinkansen lines