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Finance and Investment: The Practitioners' Perspectives (2)

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DEBT AND BLENDED FINANCE ARE THE BRIDGE TO REALIZING THE IMMENSE VALUE OF  
SPACE

**Abstract**

Space is valuable. This observation is about as useful as saying Earth is valuable. The pertinent questions are 1) Why it is valuable; 2) To whom; 3) How to capitalize on that value; and 4) What role can finance play? The first aspect (why space is valuable) can further be refined into five categories: a) resource extraction—from precious metals to mere water outside of the gravity well; b) scientific research—from microgravity experiments to astronomical observation; c) communication and observation—particularly in satellites, the largest current use of space; d) construct value—from stations to refueling depots and space hotels; e) existential—life is exceedingly rare, if not unique to Earth, and spreading out is insurance against misfortune on a planetary scale. The second aspect (to whom space is valuable) is addressed generally through identification of stakeholders and the arguments on how and why the public can and should invest in capitalizing on the immense value in space. The third and fourth aspects (addressing capitalization and finance) go hand in hand because finance, as a rule, cannot create value. Finance is a tool that can be used to overcome the barriers to reaching, extracting, and capitalizing on existing or created value. Throughout history, the use and availability of financing with interest has allowed for the proliferation and creation of large businesses and infrastructure projects. In recent years, venture capital funding of private space endeavors has exploded and vastly increased the available equity for space start-ups. But the timelines and profit margins of this style of investment are ill-suited to the future ambitions for space development, e.g., large-scale private growth, space infrastructure, and colonization, all require long-term low-cost investment.

Debt financing is the next step in the economic pattern in order to make major paradigm shifts, as seen throughout history. This transition process can be further accelerated through use of blended finance tools, as utilized in International Economic Development. Public funding, used as collateral to improve the risk adjusted return for commercial lending and capitalization from private equity markets, creates access to much larger stores of wealth and capital stability for long-term investment in space and funds the 'bridges' needed to capitalize on its immense value.