

# ASCEND™

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## An analysis of the benefits and viability of a “Bank of Space”

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# Authors



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18+ years' experience in the Space industry, FinTech, and digital banking. He is the Founder of SpaceVault, the world's first online savings account for Space professionals and enthusiasts. Jason has a BS in Astrophysics, a MS in Physics, and a MS in Engineering Management.



**Asher Begley** is a consultant at the Summus Group in Charlotte, NC.

8+ years' experience in financial services across risk management and quantitative modeling functions. His research areas include banking crises and regulatory policy responses. Asher is a graduate of the University of Tennessee and received his MBA from the University of Virginia.



# Banks at the frontier of economic development



16<sup>th</sup>/17<sup>th</sup> century:  
**Merchant Banks**



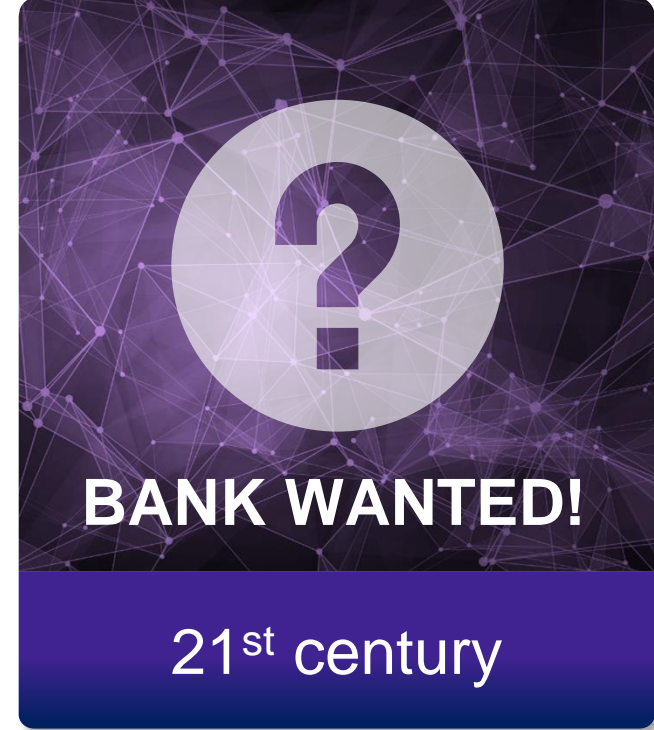
Settlement and  
economic development  
of the New World



Late 19<sup>th</sup> century:  
**JP Morgan**



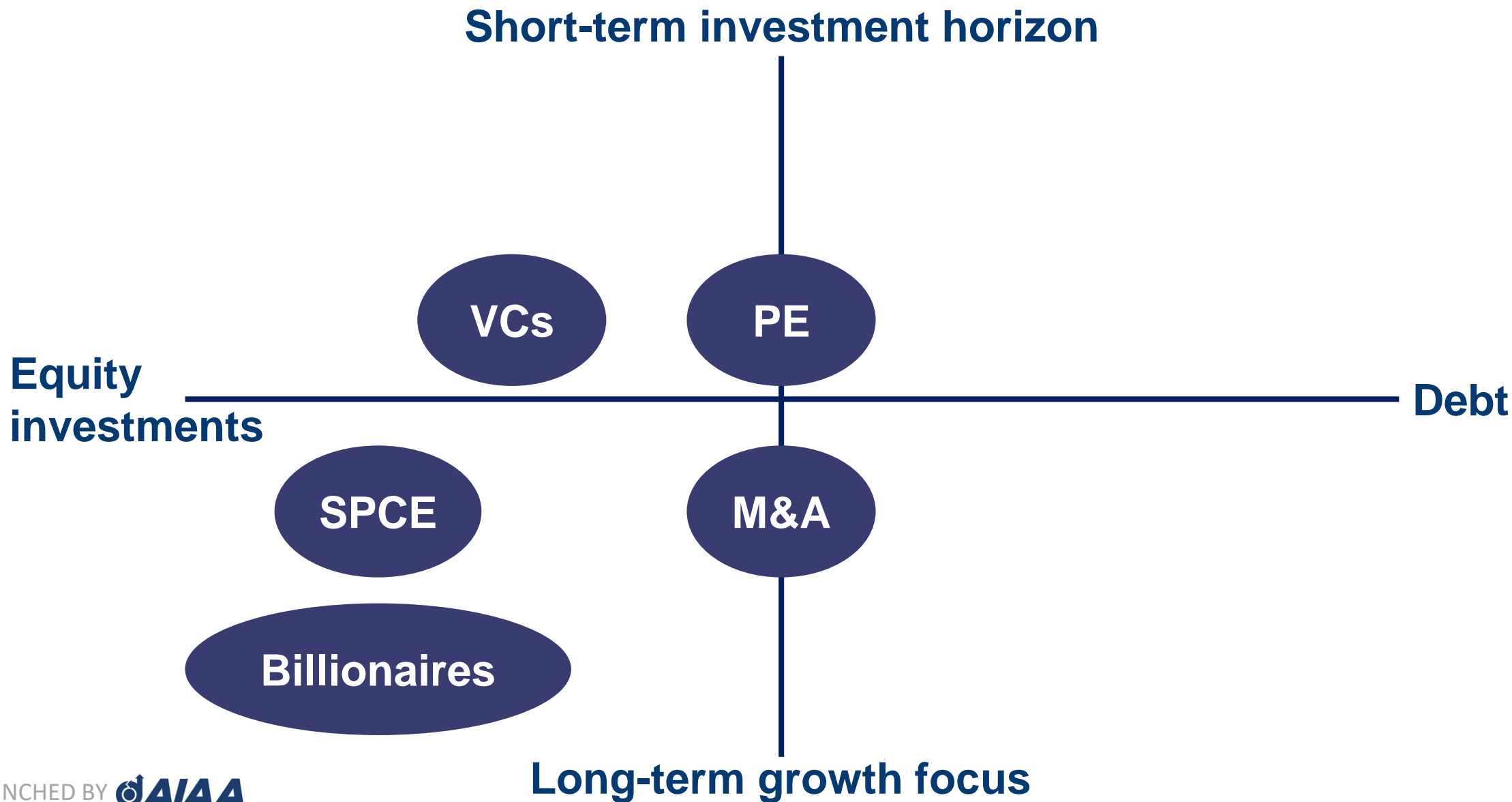
Steel, oil, railroads,  
electrical grid and  
telecommunications



**Economic development,  
industrialization and settlement  
of the Space frontier**



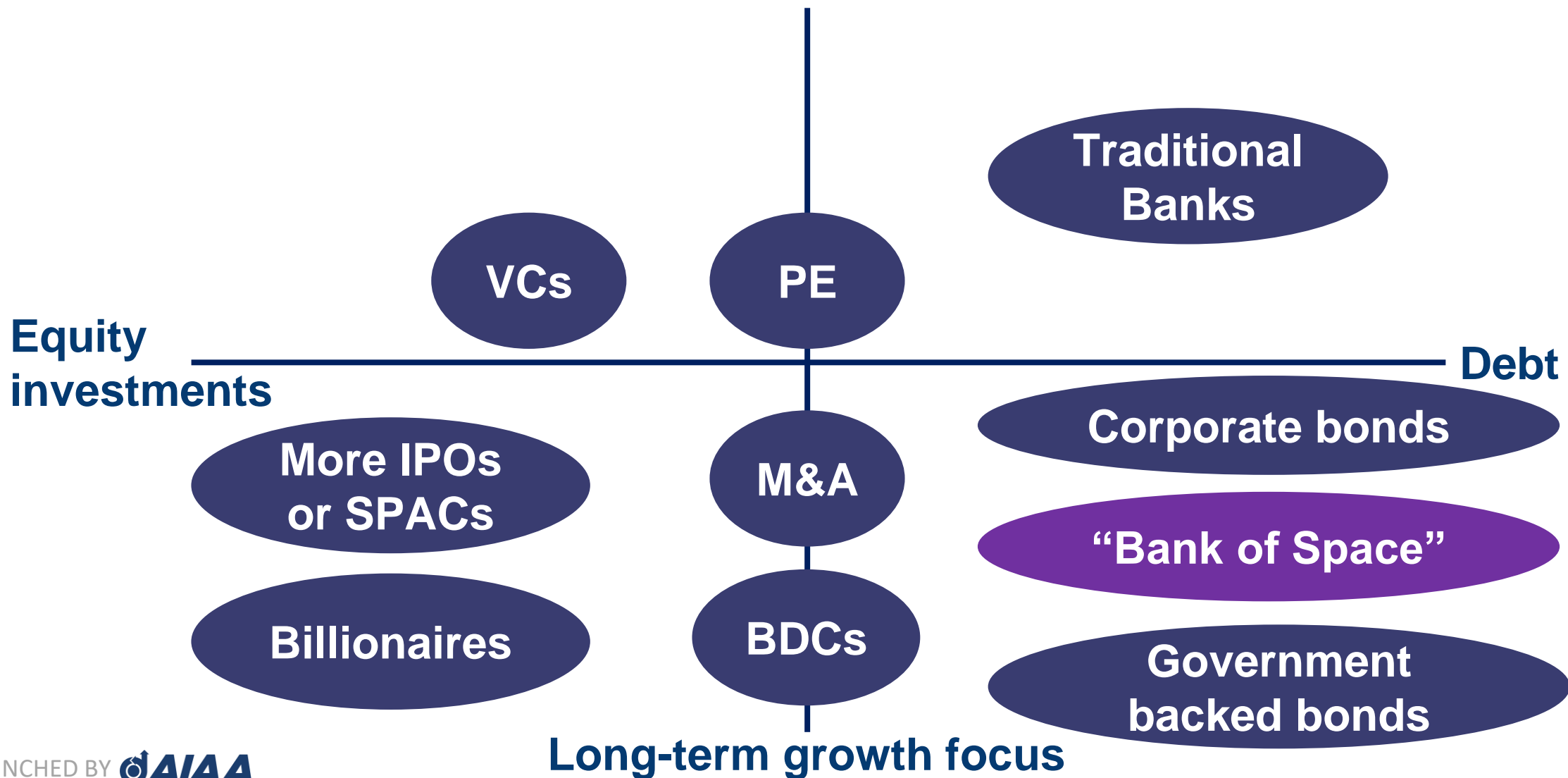
# Space industry private financing – PRESENT





# Space industry private financing – FUTURE

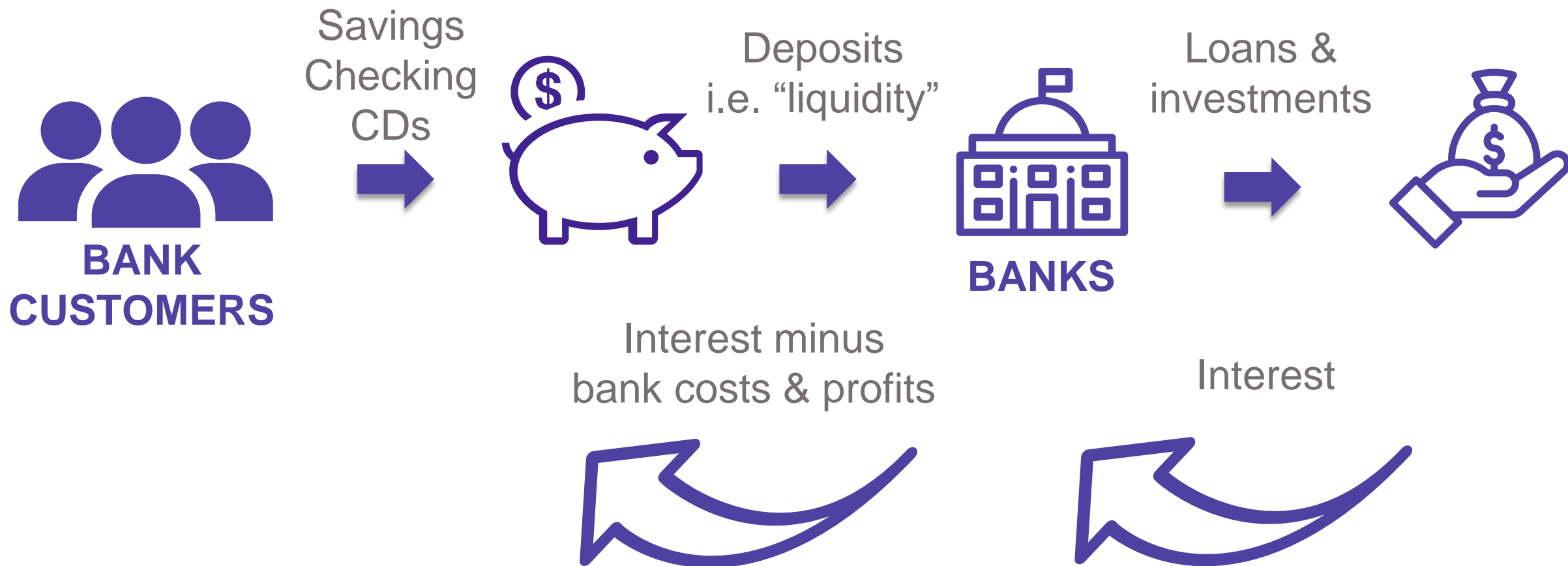
Short-term investment horizon





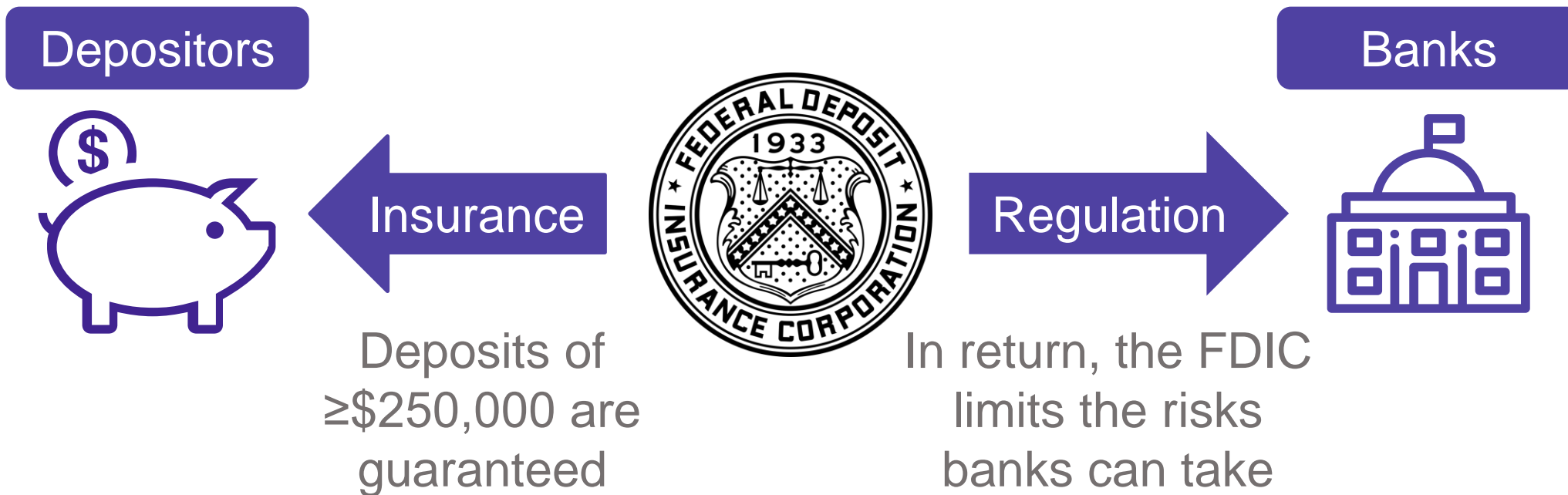


# How do banks work?





# How do banks protect against risk



## Banks limit risk by:

Holding loss-absorbing capital  
Charging non-interest income

Making high-quality loans  
Diversifying their loan portfolio



# Right time for a “Bank of Space”?

High quality loans

+

Diversification of assets



**YES! The timing is now right for a Bank of Space to support the emerging Space economy.**





# Path to high quality loans

## *SUPPLY*

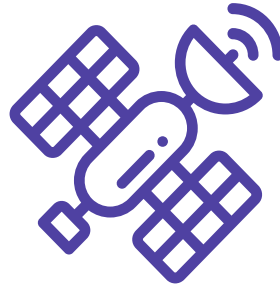
Launch costs  
decreasing



More viable  
biz cases



**In-Space  
infrastructure**





# Path to high quality loans

## *SUPPLY*

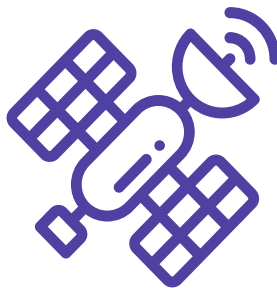
Launch costs  
decreasing



More viable  
biz cases



**In-Space  
infrastructure**



## *DEMAND*

**Commercial  
Tourism**

In-space manufacturing  
LEO commercialization

**Government  
USSF**

Cislunar development  
NASA (Moon & Mars)



# Path to high quality loans

*SUPPLY*

*DEMAND*

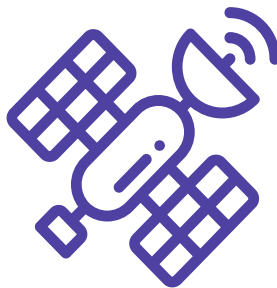
Launch costs decreasing



More viable biz cases



**In-Space infrastructure**



**Commercial**  
Tourism  
In-space manufacturing  
LEO commercialization

**Government**  
USSF  
Cislunar development  
NASA (Moon & Mars)



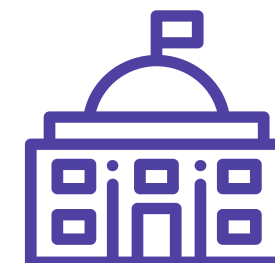
**Tangible assets**



**Securitized revenue streams**



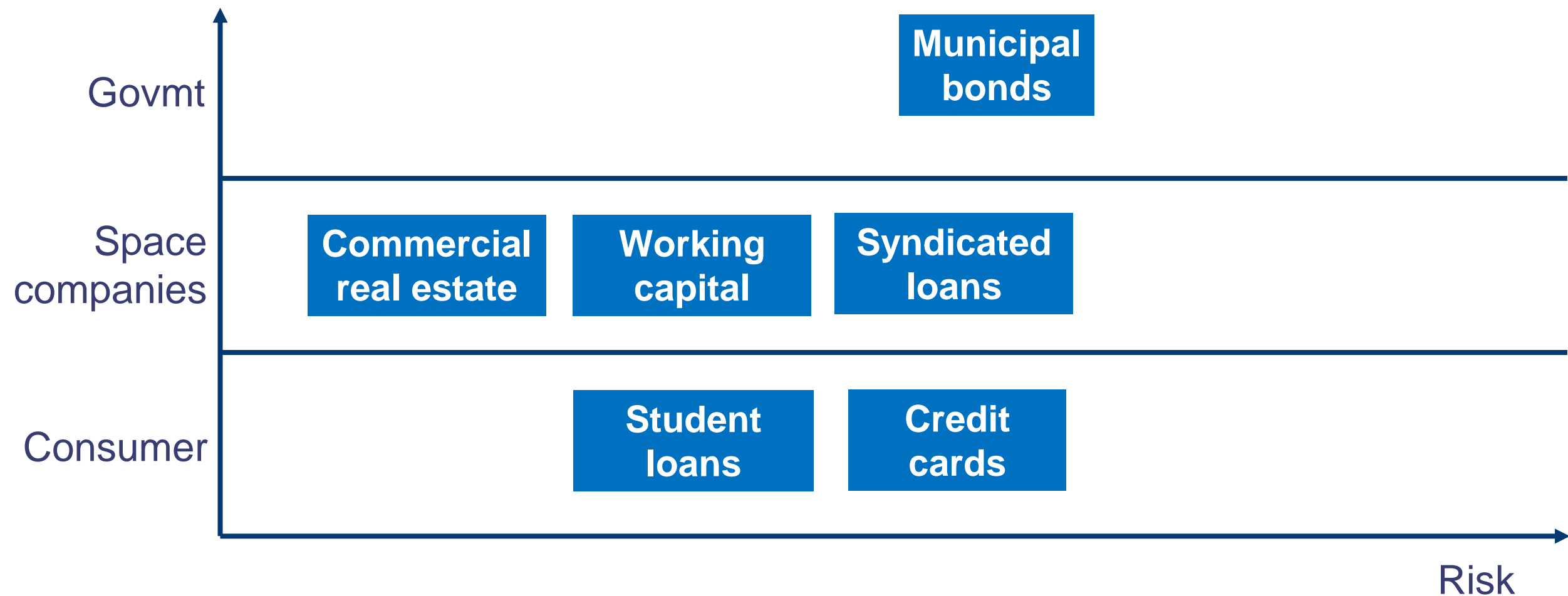
**BETTER  
PRICED RISK**





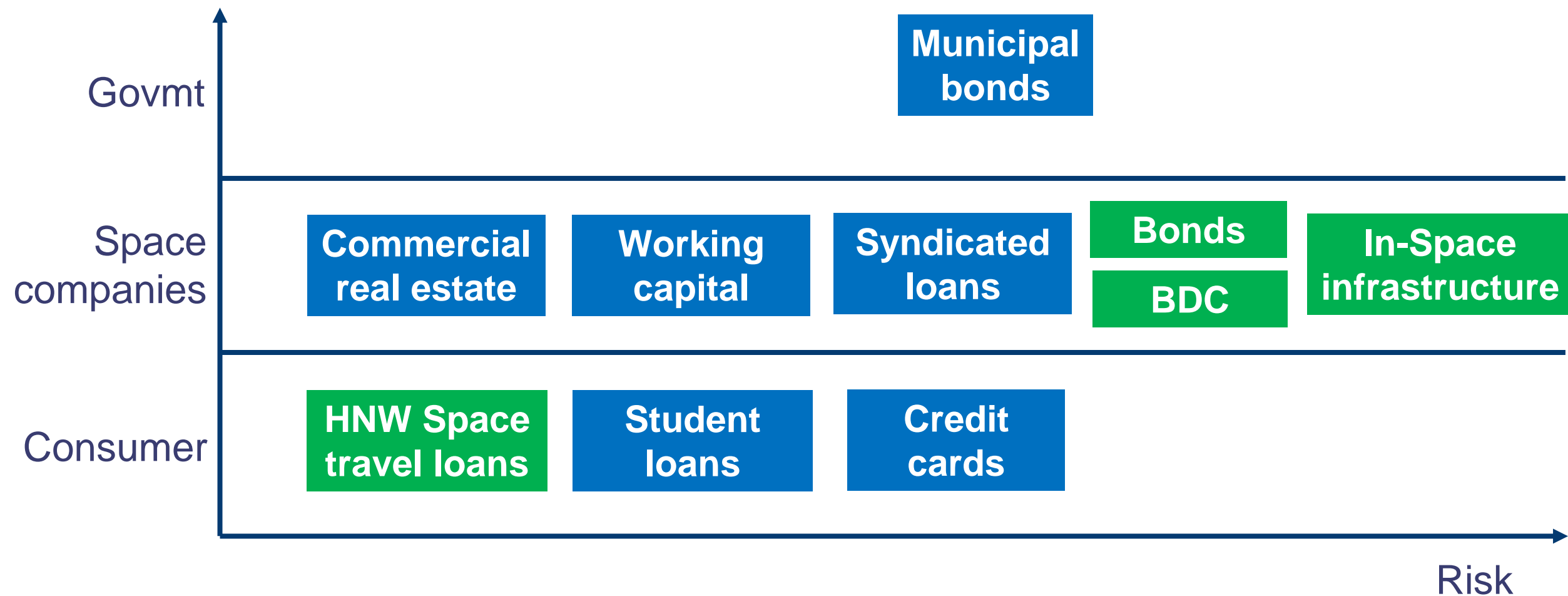


# Diversification of debt assets vs. risk (today)



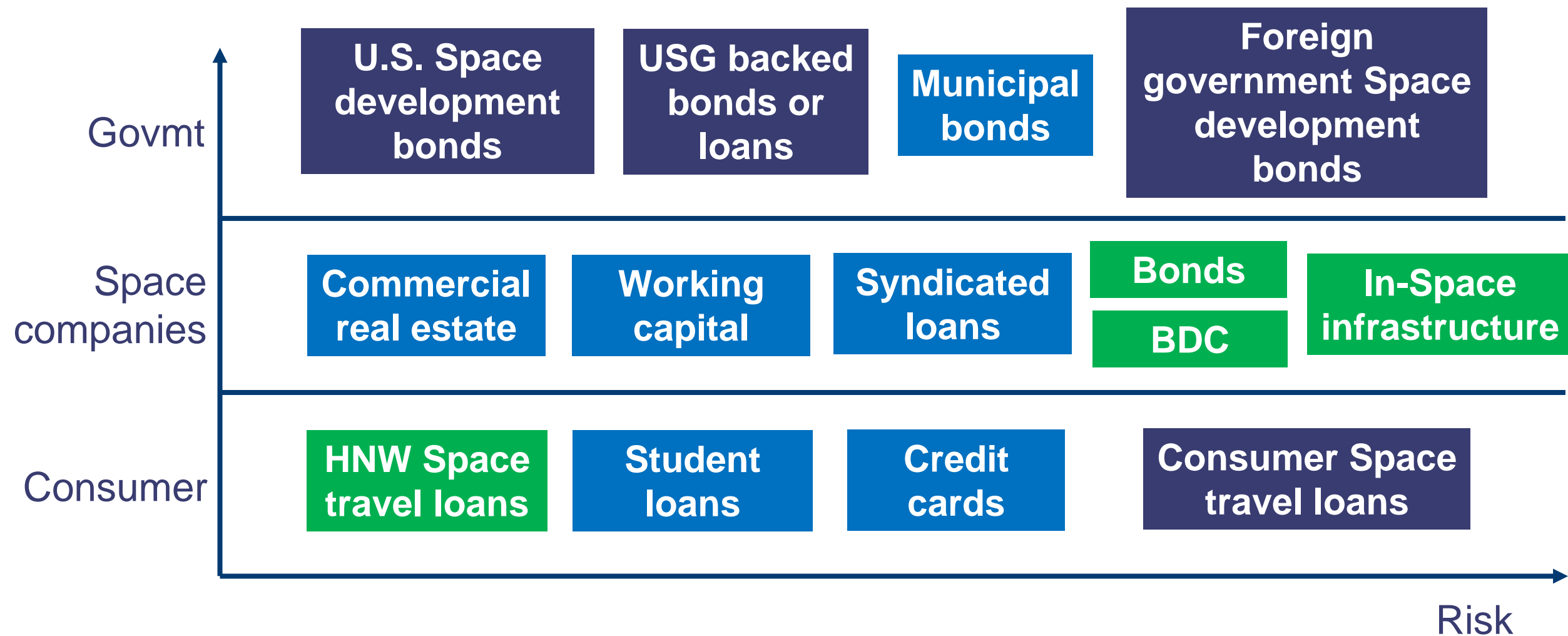


# Diversification of debt assets vs. risk (next 1-2 years)





# Diversification of debt assets vs. risk (next 5 years)





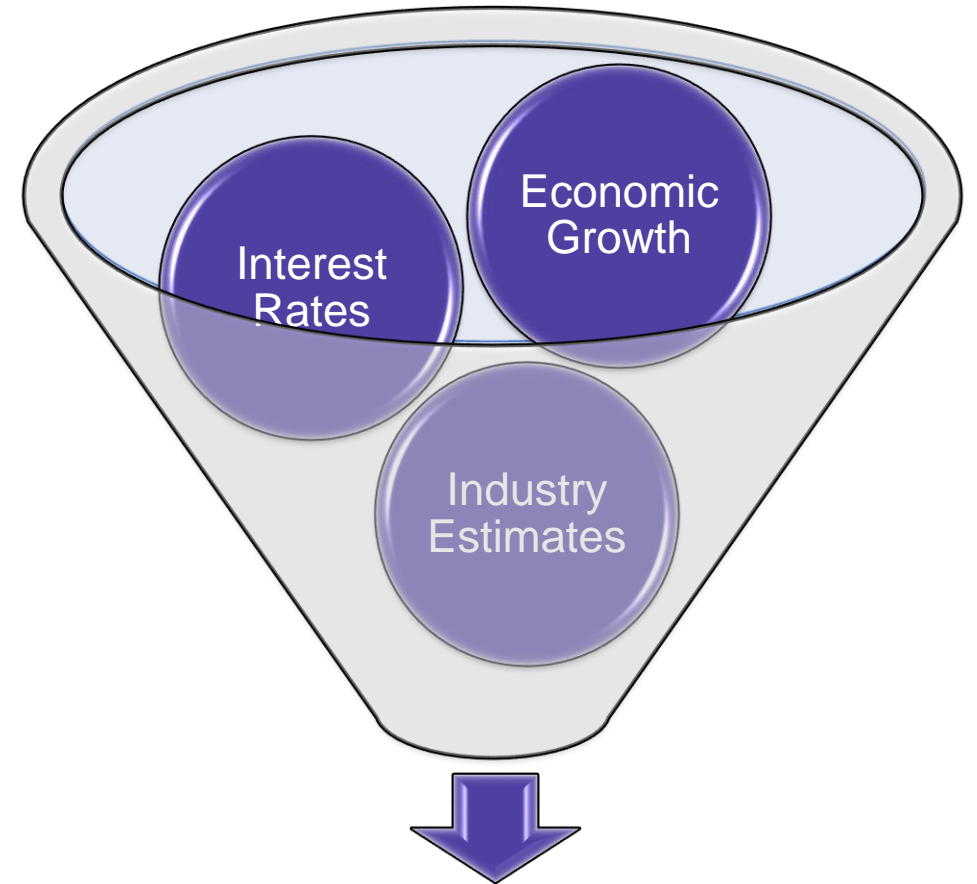


# Stress model

The viability of a Bank of Space is impacted by **economic conditions**, **interest rates**, and **growth of the Space industry**

We developed a **Capital Adequacy Model** which uses these factors to generate thousands of scenarios

The model estimates **loan growth**, **interest income**, and **credit losses**, and ultimately assess whether the bank is viable



**Capital Adequacy Model**



# Stress model results

Economic conditions	Space industry growth	2020	2021	2022	2023	2024	2025
Growth	Optimistic	\$(166.37)	\$(157.09)	\$ (62.55)	\$ 79.76	\$ 241.44	\$ 379.45
	Standard	\$(166.37)	\$(157.52)	\$ (64.03)	\$ 75.90	\$ 232.97	\$ 366.35
	Pessimistic	\$(166.37)	\$(157.80)	\$ (64.99)	\$ 73.43	\$ 227.67	\$ 358.32
Flat	Optimistic	\$(166.37)	\$(170.42)	\$ (91.46)	\$ 16.17	\$ 134.57	\$ 314.54
	Standard	\$(166.37)	\$(170.79)	\$ (92.65)	\$ 13.40	\$ 129.02	\$ 303.93
	Pessimistic	\$(166.37)	\$(171.04)	\$ (93.43)	\$ 11.64	\$ 125.56	\$ 297.44
Recession	Optimistic	\$(237.04)	\$(326.09)	\$(375.73)	\$(221.38)	\$ (71.53)	\$ 197.16
	Standard	\$(237.04)	\$(325.82)	\$(374.34)	\$(220.33)	\$ (71.90)	\$ 191.32
	Pessimistic	\$(237.04)	\$(325.64)	\$(373.42)	\$(219.65)	\$ (72.11)	\$ 187.79

**A “Bank of Space” could achieve profitability within 3-5 years**



# Structure of a “Bank of Space”



Initial capitalization → \$50M



National bank charter → regulated by the OCC



All digital and online, and leverage latest FinTech



The **community bank** for the Space industry





# Market for Space affinity deposits

**\$15.79T in US deposits  
(commercial banks only)**

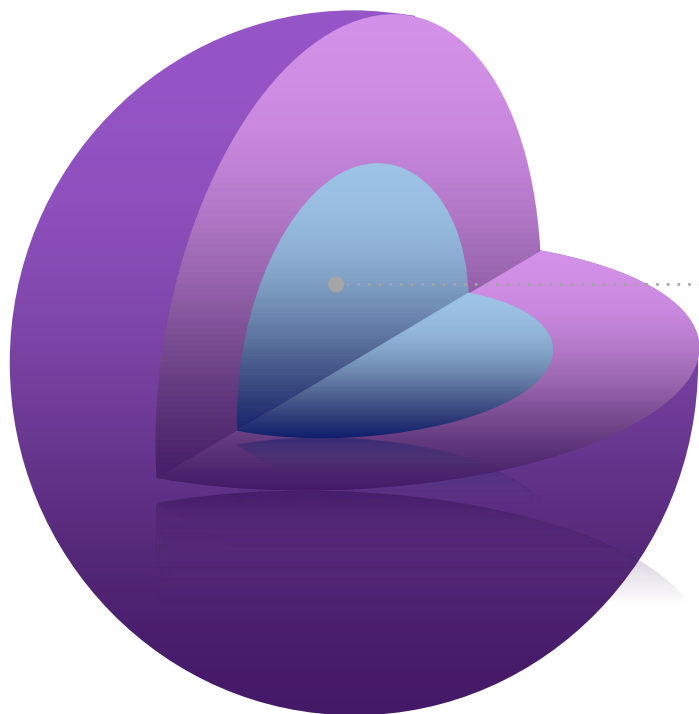


5% of depositors  
are Space  
enthusiasts and/or  
professionals



**>\$790B in US  
deposits could  
be earmarked to  
support Space  
development!**

**>\$790B in private deposit capital in  
the US could be supporting the  
Space industry!**





# Market for Space-industry debt financing (next 5 years)

Space travel  
loans



>\$1.6B per year  
lending market by  
2025

Space studies  
loans



>\$4.3B current  
total addressable  
debt

Space-affinity  
consumer credit



>\$48B current  
total addressable  
debt

Space small  
business lending



>\$11B  
addressable  
debt per year

**>\$110B of addressable Space-focused financing in the  
next 5 years**



# Market for Space-industry debt financing (next 20 years)

## Public funding

>\$1T in US  
government funding



## Private Capital

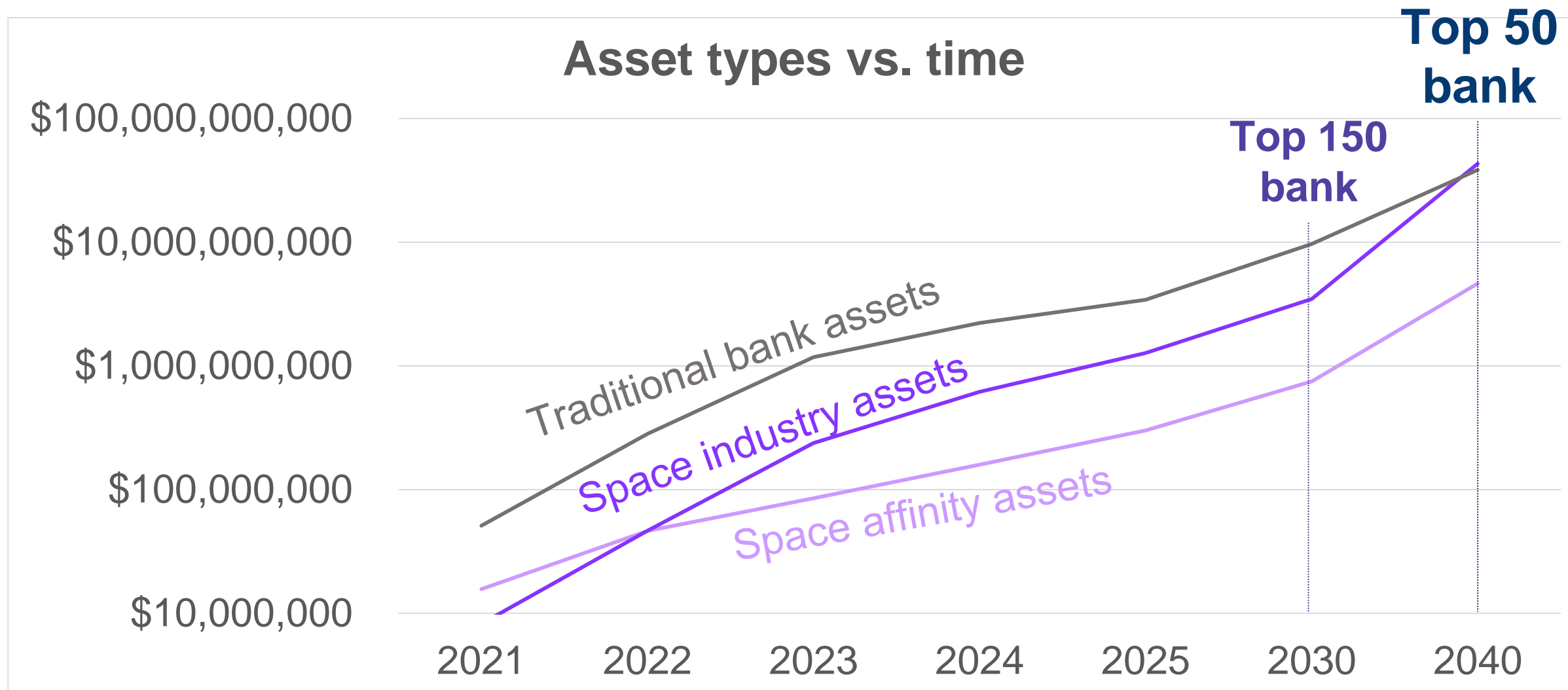
>\$250B in  
private capital  
needs the next  
20 years

Major banks  
predicting 3x to 7x  
Space economy  
expansion by  
2040

**>\$250B in private financing opportunities and >\$1T in underwriting and/or USG backed upside in next 20 years of Space economy growth**



# Types of assets vs. time







# Summary



A “Bank of Space” would be synergistic to Space industry growth



Space infrastructure and diversification in assets → the timing is right for a dedicated bank



Big market for Space-earmarked capital: **>\$790B in deposits!**



Preliminary stress and growth models prove viability of a Space industry-focused bank



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