Research

Pricing Greenland: The Essence of the Deal

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Executive Summary

- President-elect Trump has floated the idea of either purchasing Greenland from Denmark or allowing the territory to join the United States of its own accord.
- The idea is not novel: The United States has a history of major land purchases and has considered purchasing Greenland before – for $5.5 million in 1868 and for $100 million in 1946 – but what would the price be this time?
- This paper identifies the ballpark purchase price in two ways: using the market price of its mineral reserves suggests a price near $200 billion, while using Iceland as a proxy for the value of its North Atlantic location suggests a price just shy of $2.8 trillion.

Introduction

In late 2024, President-elect Donald Trump suggested that the United States buy Greenland from Denmark. This has implications for U.S. national security: Greenland is home to the U.S. military's Pituffik Space Base and growing North Atlantic shipping lanes have drawn interest from Russia and China. Moreover, Greenland hosts vast mineral resources including natural gas, oil, rare earths, and copper. Currently, much of the global supply of these minerals comes from China.

This is not the first time the United States has considered buying the autonomous Danish territory. In 1868, Secretary of State William H. Seward pushed to acquire both Greenland and Iceland for $5.5 million, yet no formal offer ever materialized. In 1946, President Harry Truman offered Denmark $100 million for the island. Today, that offer is equivalent to about $1.6 billion when adjusting for inflation. When accounting for U.S. gross domestic product

(GDP) growth and the offer value as a percentage of GDP at the time, this comes out to $12.9 billion in today's dollars.

President-elect Trump has not attached a specific dollar amount to his suggestion to buy Greenland. Nevertheless, the interest in Greenland as a source of minerals and as a strategic trade and military location may offer a strategy for identifying a ballpark price. On the one hand, one could estimate the value of known mineral resources and the value of what could be extracted. This is essentially valuing Greenland for "what you get." Alternatively, one could estimate the price from Greenland's North Atlantic location – an estimate based on "where you get it." From the "what you get" perspective, the value of Greenland's known mineral resources is $4.4 trillion, but only a small fraction can currently be extracted economically. An estimate based on that fraction is $186 billion. Using the "where you get it" approach, considering its strategic geographic location, balloons the price to $2.76 trillion.

To be clear, these estimates are not intended to answer the question of whether it is a good idea for the United States to attempt to buy Greenland, or for Denmark to sell Greenland; they are simply to inform any discussion.

Methods of Pricing

Sum of Its Parts: What You Get

One way to estimate the price of Greenland is to assess the market value of its most important mineral reserves to determine the potential long-term economic value of the island's resources. Figure 1 displays the known critical minerals and energy resources of Greenland alongside recent average market prices to provide a total price estimate.

Figure 1: Known Mineral and Energy Resources in Greenland

Resource	Known Resources (Thous. of Metric Tons) *Unless otherwise noted	Price Per Metric Ton (Current $)	Total Value (Millions)
Antimony	3.8	$12,382	$47
Baryte	480	$150	$72
Beryllium	0.07	$1,400,000	$91
Chromium	560	$9,261	$5,186
Coal	183,000	$69	$19,627

Copper	108	$8,992	$971
Feldspar	80,800	$102	$8,242
Fluorite	250	$360	$90
Gallium	152	$255,730	$38,871
Graphite	6,000	$1,200	$7,200
Hafnium	108	$4,537,200	$487,749
Lithium	235	$113,585	$26,693
Molybdenum	324,000	$55,600	$18,014
Natural Gas	148,000 billion cu ft	$0.00219/cu ft	$324,120
Niobium	5,900	$25,000	$147,500
Oil	17.5 billion barrels	$80.53/barrel	$1,409,275
PGM*	0.58	$30,583,398	$17,616
Phosphorus	11,500	$165	$1,898
REE*	36,100	$42,922	$1,549,484
Silicon metal	2,800	$2,207	$6,180
Strontium	9,800	$72	$702
Tantalum	916	$190,000	$174,040
Titanium	12,100	$2,475	$29,948
Tungsten	26	$260	$7
Vanadium	179	$14,612	$2,616
Zirconium	57,100	$3,014	$172,099
Total			**$4,441,399**
Excluding Oil and Gas			**$2,708,004**

Source: The Geological Survey of Denmark and Greenland, The U.S. Geological Survey

*PGM= Platinum Group Metals (median price); *REE= Rare Earth Elements (median price)

Given current market prices and estimated resources, Greenland's critical mineral and energy assets would be worth approximately $4.4 trillion. Notably, Greenland ceased issuing licenses for oil and gas exploration due to both climate and cost concerns; removing oil and natural gas from the calculation would bring Greenland's value to roughly $2.7 trillion. If Greenland were to join the United States, however, many or all these restrictions would likely be removed. It is also important to note that market prices for these resources fluctuate and introducing vast amounts of minerals to the global market would likely put downward pressure on prices.

It is more likely that a bid for Greenland would be based on a value for mineral reserves, which is a subset of known resources that are considered economically viable for extraction. As of 2019, 35,000 square kilometers (just 1.6 percent of the land area) in Greenland were under exploration for potential mining sites or mineral deposits. Expanding exploration would require a significant investment to build infrastructure sufficient to extract known resources.

Given Greenland's harsh environmental conditions, limited workforce, and need for an infrastructure buildout to make extraction possible, the conversion rate from resource to reserve is likely low. A U.S. Geological Survey report showed that Greenland's reserves of rare earths – which are strategically important as China dominates global supply – were 1.5 million tons, a resource-to-reserve conversion rate of 4.2 percent. Assuming this conversation rate was consistent across all mineral resources, the estimated value would be a much more modest $186 billion. This estimate should be considered a lower bound as it is likely some of the known resources are more economically viable to extract than others. This estimate also excludes the possibility that resources become more viable to extract over time as it is difficult to determine future technological advancements or higher resource prices.

Strategic Location: Where You Get It

Much of the national security interest focuses on shipping lanes linking Europe, North America, and Asia through Greenland that are made viable by the receding Arctic ice cap. These trade routes have also drawn interest from geopolitical rivals, with China seeing the region as vital to its "polar silk road" and Russia interested in securing its own access to Arctic minerals. The strategic importance is akin to the shipping lanes surrounding Iceland, which reduce shipping times by as much as 35 percent. Moreover, the United States has military interests in Greenland. Gaining control of the island would give the United States a greater footprint between Russia and the U.S. mainland.

What would it cost to purchase Greenland and achieve these strategic and military

objectives? Iceland, because of its similar location, is also strategically important to the United States. Among other things, it puts a U.S. presence in the middle of the North Atlantic to deter Russian aggression. Thus, one can use the cost of buying Iceland to estimate the cost of buying Greenland. If the United States were to purchase all the commercial and residential real estate on Iceland it would come with a price tag of $131 billion, or $1.28 million per square kilometer. Extrapolating this estimate to the size of Greenland would result in an estimated value of $2.76 trillion. This provides a rough pricing estimate on the location of Greenland and lends some tangible value to the intangible and difficult to determine price of U.S. national security.

Past U.S. Land Purchases

The largest land purchase in U.S. history was the Louisiana Purchase in 1803, a $15 million deal with France that represented over 3 percent of U.S. GDP at the time. Today, the equivalent GDP would be over $890 billion. The most recent land purchase was the 1917 $25-million deal to acquire the Virgin Islands, which would amount to about $12.1 billion today accounting for U.S. growth. These past land purchases offer a comparative analysis to consider what the United States might be willing to offer for Greenland given historic examples.

Figure 2: Previous U.S. Land Purchases

	Year	Purchase Price (millions)	Price per km2	Percent of GDP at Time of Purchase
Louisiana Purchase	1803	$15	$7.01	3.04%
Florida Purchase	1819	$5	$26.78	0.68%
Gadsden Purchase	1854	$10	$130.21	0.26%
Alaska Purchase	1867	$7.2	$4.74	0.09%
U.S. Virgin Islands	1917	$25	$71,023	0.04%

Source: FRED, Measuring Worth Datasets, United States Territorial Acquisitions

In 1868, the United States considered purchasing both Greenland and Iceland from Denmark for $5.5 million which, as a proportion of GDP, is comparable to about $19.6 billion today. In 1946, the United States officially proposed to purchase Greenland for $100 million, roughly $12.9 billion relative to the U.S. economy in 2024.

Figure 3: Previous Offers to Purchase Greenland

Previous Proposal to Purchase Greenland	Year	Offer ($ millions)	Price Per km2	Percent of GDP at Time of Offer
Greenland and Iceland	1868	$5.5	$2.54	0.07%
Greenland	1946	$100	$46.17	0.04%

Source: Measuring Worth Datasets, Time, Nunatsiaq News

Offering between $12.9 billion and $19.6 billion for Greenland today would match these historical analogues as a percentage of U.S. GDP in 2024, accounting for decades of economic growth since the last offer. These bids would end up providing Denmark between three and five times the total GDP of the island. If the United States were to value Greenland at $186 billion based on estimated mineral reserves, this would equate to approximately 0.64 percent of 2024 GDP, similar to the Florida Purchase of 1819.

Other Estimates

In a recent article in *The New York Times*, David Barker, a real estate developer and former economist at the New York Federal Reserve, estimated Greenland's value to be between $12.5 billion and $77 billion. Each of these estimates accounts for the economic growth of the United States since the purchase of Alaska and the economic growth of Denmark since the United States purchased the Virgin Islands.

Conclusion

President-elect Trump's idea to acquire Greenland has precedent, as the United States has a history of land purchases and has offered to purchase Greenland before. But what would be the asking price? The national security rationale for Greenland stems from both its military value and proximity to increasingly important Arctic shipping lanes and its large critical mineral deposits. We estimate a ballpark price in two ways: using the market price of its mineral reserves suggests a price near $200 billion, while using the price of its North Atlantic location suggests a price just under $2.8 trillion.

To be clear, these estimates are not intended to answer the question of whether it is a good idea for the United States to attempt to buy Greenland, or for Denmark to sell it, but simply to inform any discussion.