"Our business is affected by everything you can imagine," says Frangou, who lives in Athens. "But at the same time, as a truly global business, we aren’t totally affected by any one thing."

Her climb to the top echelons of the shipping world began 20 years ago, soon after she graduated from Columbia, where she earned her master’s degree in mechanical engineering. After spending two years as an analyst on the trading floor for Republic Bank of New York, Frangou launched her own company, with one vessel, valued at $2 million.

Today, her three publicly traded companies—Navios Holdings, Navios Partners, and Navios Acquisition—have an enterprise value of approximately $5 billion. Currently under construction in shipyards in Japan, South Korea, and China are 12 Navios vessels, ranging in capacity from 50,000 to 300,000 tons.

"I’m the fifth generation of my family to work in the shipping business," says Frangou. "It’s in my DNA."

The British shipping publication Fairplay credits Frangou’s success to her ability to structure financial deals, attract investors, and manage a far-flung shipping empire that transports dry cargo and liquid goods. "In the business world, the combination of conceptualizer, implementer, and manager in a single individual is very rare," Fairplay wrote. "Frangou is one such individual."

As CEO, she travels the globe, one day negotiating acquisitions and mergers in Europe, then traveling to South America to negotiate a port facility before arriving in the United States to meet with shipping officials. She also taps her mechanical engineering background to both address nuts-and-bolts technical problems involving her seafaring vessels and to structure solutions to thorny business issues that arise.

"Engineering shows you how to take a complex problem, analyze it in a simple way, and find the process that can move it forward much faster," she says.

Commissioning new ships also provides an opportunity for engineering analysis. A large part of a shipping company’s costs are related to the consumption of fuel that powers her fleet around the globe. Her boats under construction are designed to require less steel, making the ships lighter and more fuel efficient. Their engines run on crude oil, which is much cheaper than refined oil products that older ship engines burn.

As she works to make her own ships more energy efficient, she also works with international officials to promote free trade. She credits lower tariffs over the past decade with fueling economic growth and wealth creation.

"In a period of crisis and recession, there’s always a fear of going backwards," she says. "But we need to find ways to keep moving forward."