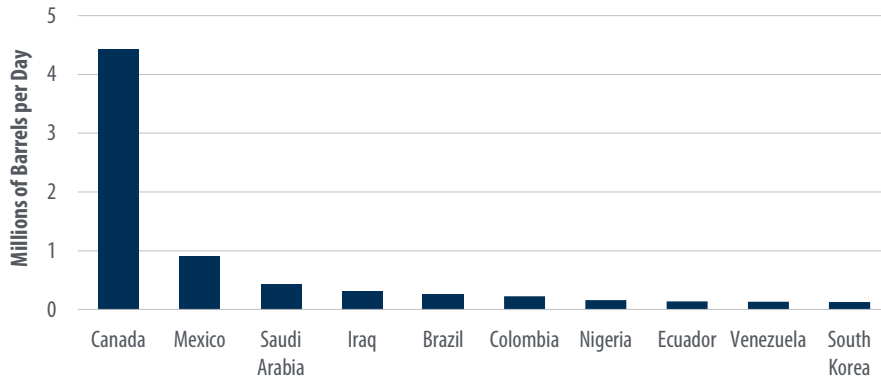


## Energy Independence? Why the U.S. Still Relies on Canada

In this week's edition of "Three on Thursday", we take a look into the energy relationship between Canada and the United States. A common belief is that because the U.S. now produces more energy than it consumes—becoming a net exporter—it should no longer be reliant on imports from countries like Canada. But is that really the case? While the U.S. has increased energy independence, cutting off Canadian imports would be costly, complex, and far from ideal for either country. The energy sectors of Canada and the U.S. are deeply intertwined, making collaboration not just beneficial, but essential. To better understand the depth of this partnership, we've included three key graphics below.

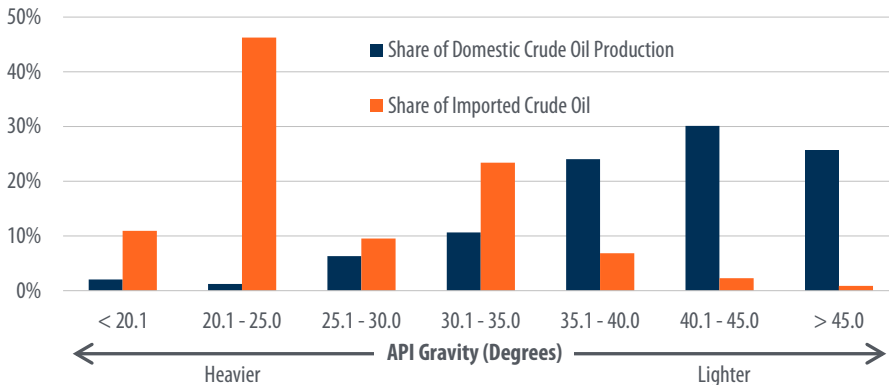
### U.S. Imports of Petroleum Products, Top 10 Countries



Source: Energy Information Administration, First Trust Advisors. Annual data for 2023.

In 2023, the most recent full year of data available, the U.S. imported 8.51 million barrels per day (mb/d) of petroleum from 86 different countries. This includes crude oil, hydrocarbon gas liquids (HGLs), refined products like gasoline and diesel, and biofuels. One country, however, stands out above the rest—Canada. Supplying 4.42 mb/d, Canada accounted for 52% of all U.S. petroleum imports. To put that dominance into perspective, the second-largest supplier, Mexico, provided just 0.91 mb/d—a distant 11%.

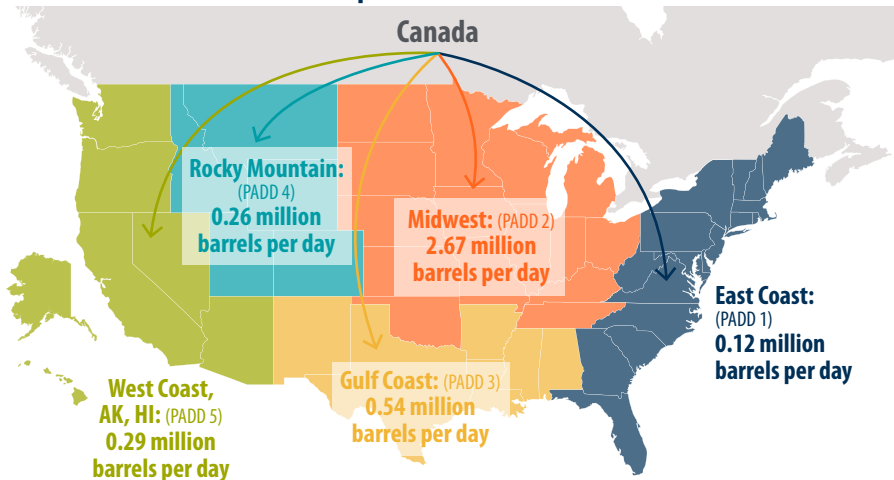
### U.S. Imports Heavy Crude Oil But Produces Light Crude Oil



Source: Energy Information Administration, First Trust Advisors. Annual data for 2023. API stands for the American Petroleum Institute.

Long before the U.S. shale boom, when global production of light sweet crude was declining, U.S. refineries invested heavily in upgrading their facilities to process heavier, high-sulfur crude—ensuring a steady feedstock for gasoline, diesel, and jet fuel. Today, heavy crude remains essential, with Canada supplying 24% of U.S. refinery throughput in 2023, mainly in the form of heavy crude from Alberta. Meanwhile, the boom in U.S. crude production over the last 20 years, particularly in the Permian and Bakken basins, has yielded light sweet crude, a higher quality product but not what many refiners in the U.S. are equipped to handle. Converting refineries to process only domestic crude would cost billions, require decades to permit and construct, and still face infrastructure challenges—such as a lack of pipelines designed to transport light sweet crude vs. the heavier crude on different routes. Even if financially viable, permitting and building new pipelines alone can take nearly a decade and new political leadership could stop projects dead in their tracks.

### Destinations of Canadian Oil Imports



Source: Energy Information Administration, First Trust Advisors. Annual data for 2023. PADD stands for The Petroleum Administration for Defense Districts.

In 2023, 97% of Canada's crude oil exports went to the United States. With poor access to coastal ports, as Canadian environmental activists make it hard to build pipelines, the U.S. is by far the most viable market. Geographic proximity allows pipelines to efficiently transport crude from Alberta's major production region to U.S. refineries. Inland U.S. regions, particularly the Midwest (PADD 2) and Rocky Mountains (PADD 4), are deeply integrated with Canada's oil market through extensive pipeline and rail networks. The Midwest alone accounted for over 60% of Canada's crude exports in 2023.

This report was prepared by First Trust Advisors L.P., and reflects the current opinion of the authors. It is based upon sources and data believed to be accurate and reliable. Opinions and forward looking statements expressed are subject to change without notice. This information does not constitute a solicitation or an offer to buy or sell any security.