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INSIGHTS & VIEWS

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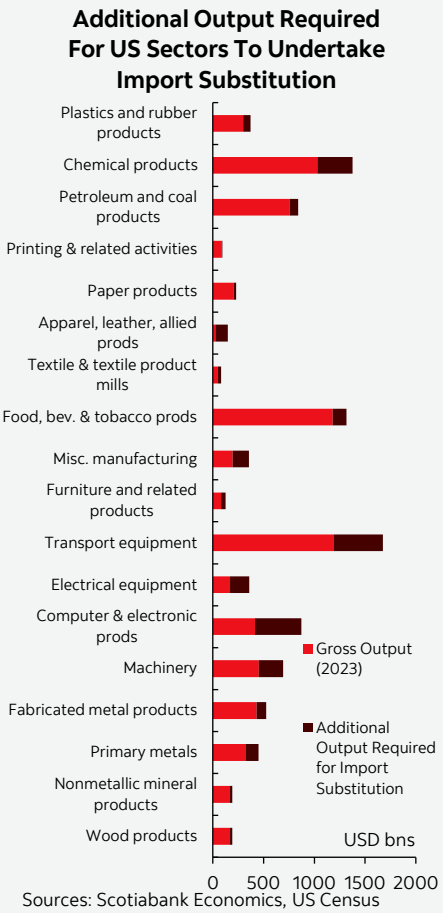
Pursuing Pyrite: The False Hope of Import Substitution to Resurrect American Manufacturing

STRUCTURAL FACTORS IN THE US ECONOMY IMPLY A STATED AIM OF US TARIFF POLICY (TO REPATRIATE MANUFACTURING CAPACITY) WOULD BE DIFFICULT AND EXPENSIVE TO ACHIEVE, IF IT IS EVEN POSSIBLE

- **The direction of US trade policy remains fragmented and unclear, but one of the many stated intentions of current US trade policy is to increase employment in manufacturing. This is largely being pursued through tariffs that aim to incentivize domestic production and shift away from imports.**
- **Fully shifting away from imports is unrealistic, but given that it's a stated policy goal, it's worth considering as a thought exercise. Our analysis shows growing domestic manufacturing output to levels needed to fully substitute away from imports would require nearly two thirds more workers than the sector has today.**
- **In this scenario, manufacturing employment would be higher than it has ever been in US history, and hiring needs would be equivalent to roughly 6% of the overall US private labour force. Even in alternative scenarios where productivity doubles, the sector would still need to hire close to one third as many workers as it employs today.**
- **To complicate matters, manufacturing firms are already facing labour shortages. Roughly one in five manufacturing firms report not being able to find enough workers to maintain full production.**
- **Further, demographic headwinds/declines in immigration inflows will likely shrink the pool of available workers needed to fill these roles just as demand grows. Given that unemployment in the US is currently 4%, a shock of this magnitude (if attempted) would heavily bias towards risk of stagflationary outcomes.**
- **That said, it's not clear if avoiding adverse economic outcomes will be key in determining which policies get implemented in the near-term. Observers will need to be vigilant towards the potential adverse (direct and indirect) consequences of these actions on consumption, inflation and interest rate paths.**

Chart 1



Sources: Scotiabank Economics, US Census Bureau.

TOO CLOSE TO THE SUN

US policymakers have set their sights on growing employment in manufacturing sectors. This may be a worthwhile policy objective, but achieving it will likely be challenging, costly, and take years, even under ideal circumstances. The administration's stated approach to growing employment is to attract manufacturers from other countries by creating import barriers to access the US market, as detailed in "**The President's 2025 Trade Policy Agenda**". If imports were reduced, the agenda theorizes manufacturing jobs will be created as domestic output increases to offset declines in trade flows.

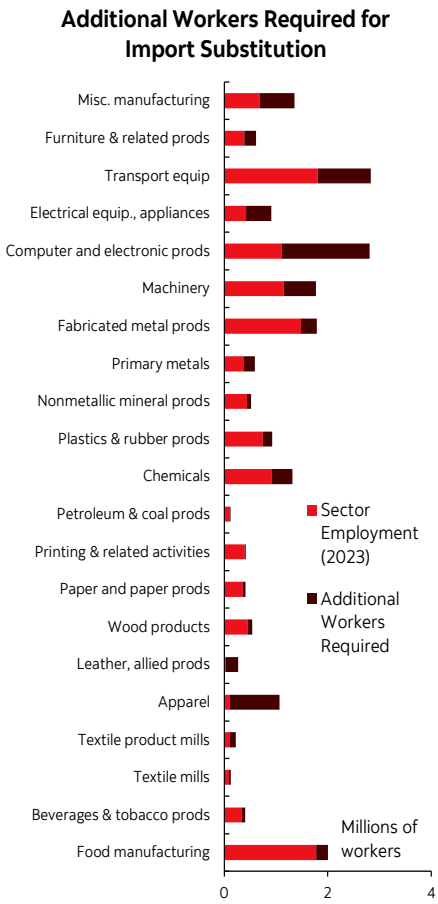
Aiming for self-sufficiency would require producing more manufactured goods domestically, which will also require greater inputs—namely capital and labour. Under any long-term scenario where this goal were achieved, several criteria would need to be met. This report focusses on the labour requirements associated with this potential growth, since the US would need enough skilled workers to increase output by required amounts. Even though US labour markets are famously productive, and manufacturing is less labour-intensive than ever, full import substitution would still generate substantial labour demand. This would occur within an environment of reduced immigration, renewed deportation efforts, and a shrinking population nationally, all of which could make it more difficult to find needed talent if demand grows in the coming decade(s).

To start, full substitution of imports would require a marked expansion in manufacturing output from a range of sectors. Replacing imports of manufactured final products in the US would require increasing output by roughly 36%, with growth varying by subsector. Certain subsectors, including computer and electronic products, and electrical equipment, would need their output to increase by more than double current volumes (chart 1). Certain textile products would need to grow output by over 500%, as current import values far exceed domestic production. These estimates on output growth should be interpreted as lower-bounds, since they do not account for imports of intermediate goods (i.e. inputs) that would also need to be domestically produced. Substitution of these intermediate goods, which **accounted** for roughly 17% of total goods imports in 2022, may prove challenging for reasons beyond increasing output, as patents or IP rules could limit the availability of comparable domestic alternatives to current imports.

Increasing output by that much would require 61% more workers than are currently employed in manufacturing today, akin to hiring 5.7% of the total US private labour force (chart 2). Manufacturing subsectors employed 12.8M workers in the US as of December 2024. If output-per-worker remained constant, increasing output by these amounts would require hiring 7.7M additional full-time workers, a 61% increase that would bring total manufacturing employment to roughly 20.5M. The largest number of additional workers would be needed in computer and electronics manufacturing, transportation (automotive/parts) manufacturing, and apparel, with each requiring 1–1.7M additional workers. At this level, manufacturing employment would grow from accounting for 9% of the total US private workforce to over 15%, a level last seen in early 2001 before China joined the WTO. In real terms, manufacturing employment would be higher than it was in 2001 by roughly 5M workers (chart 3).

Even in scenarios with enormous leaps in productivity growth, labour demand would remain incredibly high. Major capital investments to repatriate manufacturing could also see productivity improvements that reduce potential labour demand. However, even in (very) optimistic scenarios where manufacturing productivity doubles, overall hiring needs would still approach 4M additional workers. In this scenario, manufacturing still would account for over 12.3% of total private US workers, a level last seen in 2006. This implies that full substitution would require enormous growth in both workers and productivity, and any lag in one would need to be offset by likely unrealistic levels gains from the other.

Chart 2

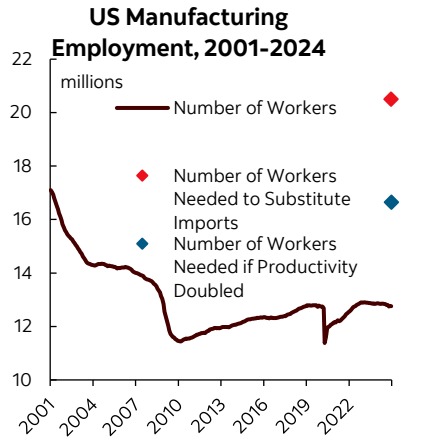


Sources: Scotiabank Economics, Bureau of Economic Analysis.

SUPPLY BEFORE DEMAND

Achieving this aim would take years (at a minimum), but current conditions and trends indicate even first steps could face headwinds. For example, manufacturing firms already have trouble attracting enough workers to fill open roles. In Q3 2024, 21% of manufacturers identified insufficient workers were preventing them from operating at full production capacity, with figures varying by subsector (chart 4). This finding has declined from the highs of the post-pandemic period, but still indicates firms face significant challenges in finding and retaining skilled workers. There is potential that labour shortages could be somewhat offset through increases in manufacturing wages to attract more workers, but this solution would have spillover effects. First, it would further raise costs of manufactured goods, which could lead to inflation and reduced consumption. Second, it would put pressure on non-manufacturing wages to rise to levels that might raise costs in other sectors (particularly if competition for a small pool of workers increases), similarly contributing to inflation. Third, higher wages across both tradeable and non-trade sectors could see real exchange rates rise, hurting export competitiveness. If getting more workers employed in manufacturing over the long-term is the ultimate aim, the first step before any import substitution-focused policies are implemented should be to advance labour-supply side solutions that help fill existing open roles, such as workforce training and deregulatory efforts.

Chart 3



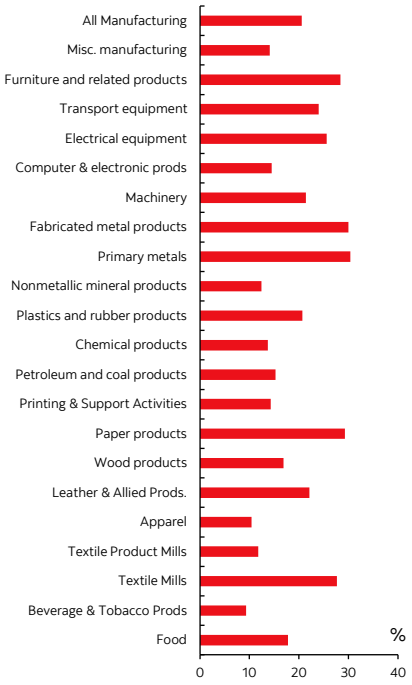
Sources: Scotiabank Economics, Bureau of Labour Statistics.

Immigration actions could worsen labour supply challenges, exacerbating existing worker shortages before labour demand growth even materializes. Naturalized and non-US citizens accounted for roughly 20% of the workforce in manufacturing in 2023, and the sector accounted for roughly 10% of all immigrant employment within the US. US Census Bureau projections indicate that if immigration declines or shrinks, the US population will begin to shrink within the next two decades (chart 5). These declines could further adversely impact labour availability to meet desired demand growth, since the two trends would likely move inversely to one another. If rates of deportation increase substantially, challenges could be exacerbated further. Data from Pew Research Centre from 2022 indicates that the manufacturing sector employs the highest number of unauthorized workers of any sector in 14 different states, indicating unauthorized workers occupy at least some share of labour supply within the sector, and deportation efforts may lead to reductions in the current size of the workforce. Deportation efforts could also shrink the pool of available workers to hire to fill vacancies as they arise moving forward, as might other policy efforts taken to reduce immigration inflows.

Given that this would be a long-term project and labour demand would rise over time, unfavourable demographic headwinds indicate real risk. The US Census Bureau forecasts slower population growth will drag growth moving forward, with total employment is set to grow by only 0.4% by 2033, a decline from 1.3% growth experienced from 2013–2023. This could have even larger impacts in the manufacturing sector, where employment growth is expected to be lower than this average (less than 0.1%). Manufacturing as a whole is projected to hire less than one eighth as many workers in the coming decade than the previous one. Absent a scenario where demographic trends undertake structural reversals and immigration flows occur at the upper end of potential ranges, all signs point towards fewer workers within the manufacturing sector over the long run for reasons largely outside the control of any one administration.

Chart 4

Share of Manufacturers Reporting Labour Shortages Limiting Overall Production in Q3-2024



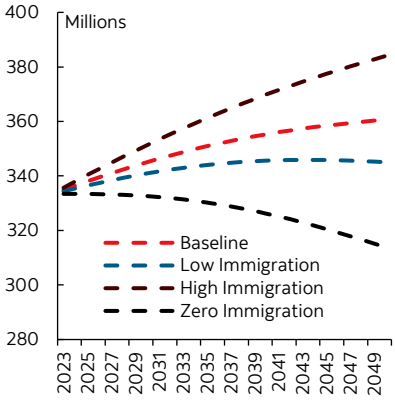
Sources: Scotiabank Economics, US Census Bureau.

ETERNAL VIGILANCE

If this overall agenda and approach is pursued nevertheless, observers should closely watch economic indicators to evaluate for signs of economic distress. Evidence from previous tariff rounds suggests the negative effects of tariff policies on manufacturing employment outweigh the positives. However, if the administration advances with measures regardless, several key indicators should be monitored to offer insight into potential directional effects. A hiring increase equivalent to 3–6% of the labour force, particularly in a US economy performing above potential, where unemployment is currently 4.1%, and facing a declining population, would put significant upward pressure on wages and inflation even if productivity increased dramatically. Compounded by (uncertain) tariff risks, a supply shock of this magnitude might therefore influence future rate paths. Additionally, raising tariffs to sufficiently high levels to fully substitute for imports would likely have significant stagflationary effects, since inflation could rise while consumption declined, further tempering the growth outlook for the US. Given all of this elevated uncertainty, it will be important to monitor developments and decisions to see where data—and policy—is headed as the weeks advance.

Chart 5

US Population Scenarios



Sources: Scotiabank Economics, US Census Bureau.