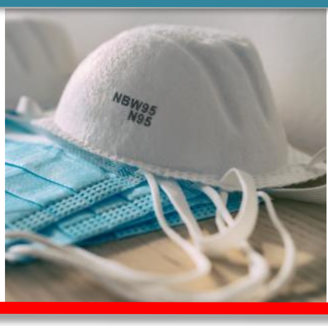
Reshoring Initiative®

2020 Data Report

Two Milestones:

Reshoring Surges to Record High.

Cumulative Jobs Announced Surpasses 1 MILLION JOBS



Reshoring and FDI Trends

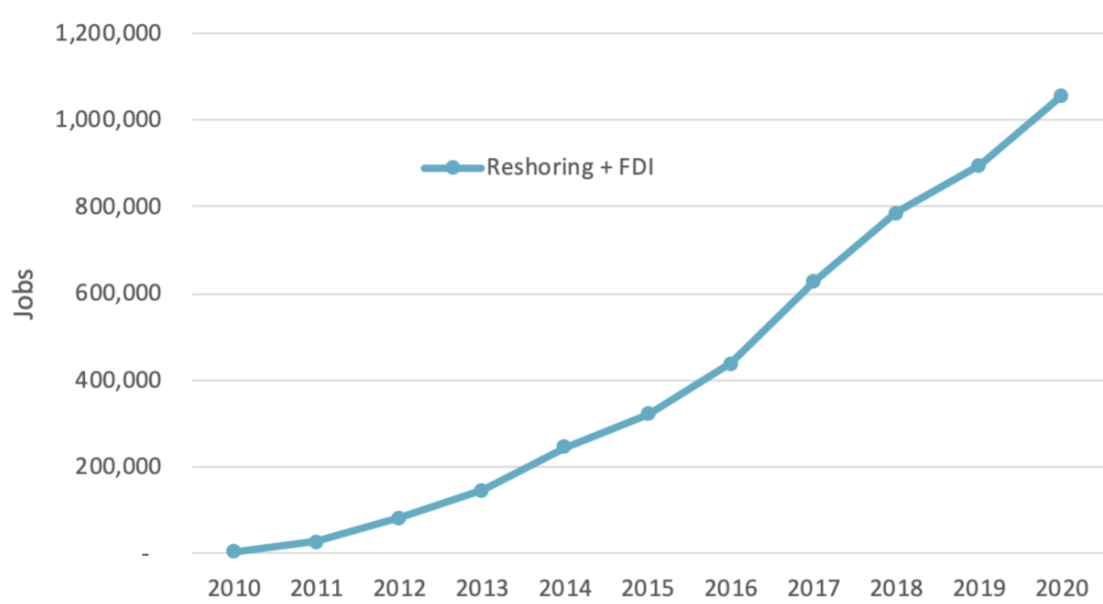
Reshoring Initiative® 2020 Data Report: Two Milestones: Reshoring Surged to New Record in 2020.

Cumulative Jobs Announced Surpasses 1 Million.

Executive Summary

One bright silver lining to the pandemic is the broad public and corporate realization and acknowledgement of the need to shorten supply chains and produce goods at home. Despite COVID, reshoring numbers were up in 2020. Reshoring and foreign direct investment (FDI) job announcements for 2020 were 160,649, bringing the total **jobs announced since 2010** to **over 1 million** (1,057,054). Also of significant importance: reshoring exceeded FDI by nearly 100%, the first beat for reshoring since 2013. Additionally, the number of companies reporting new reshoring and FDI set a new record: 1,484 companies. Reshoring will continue to be key to U.S. manufacturing and economic recovery in 2021 and beyond.

Exhibit 1a | **Jobs Announced, Reshoring + FDI, Cumulative 2010-2020**



This report contains data on trends in U.S. reshoring announcements by U.S. headquartered companies and FDI by foreign companies that have shifted production or sourcing from offshore to the U.S. The cumulative data includes 2010 - 2020.

Data Index

All data[1] is for reshoring plus FDI, 2010 to 2020, unless otherwise noted.

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[1] The data for all reports comes from the Reshoring Initiative's Reshoring Library of over 7,000 published articles, privately submitted Reshoring Case Studies, and some other privately documented cases. Reshoring and FDI are both motivated by the same logic: the financial advantages the company achieves by producing near the customer.

Cases must refer to a specific company, product and location to be included. Job numbers are assigned to the year in which the numbers are first announced and can include current hiring, recent prior years' hiring and future hiring. We estimate that actual hiring lags, on average, 12 to 24 months behind the announcements, i.e. occurs one to two calendar years later.

We include work brought to an OEM's assembly plant and work newly outsourced to the domestic supply chain. The supply chain often receives more jobs than the assembly plant.

Job and company numbers are first tabulated and then adjusted for under-reporting, especially in the domestic supply chain. More information on our calculation process is available on request. Total job and company count varies from chart to chart since we do not have data for all chart topics from all cases.

1. Cumulative Manufacturing Jobs

Over 1,000,000 reshoring and FDI manufacturing jobs have been announced from 2010 thru 2020.

Allowing for a conservative two-year lag until hiring, 787,000 have been hired, equaling over 100% of the 778,000 increase in U.S. manufacturing jobs since the manufacturing employment low of 11.45 million in February 2010 and 7% of total 12/31/20 manufacturing employment of 11.5 million. Note that these %'s will decline as manufacturing employment recovers in 2021.

Exhibit 1b | **Jobs Announced, Reshoring and FDI, Cumulative 2010-2020**

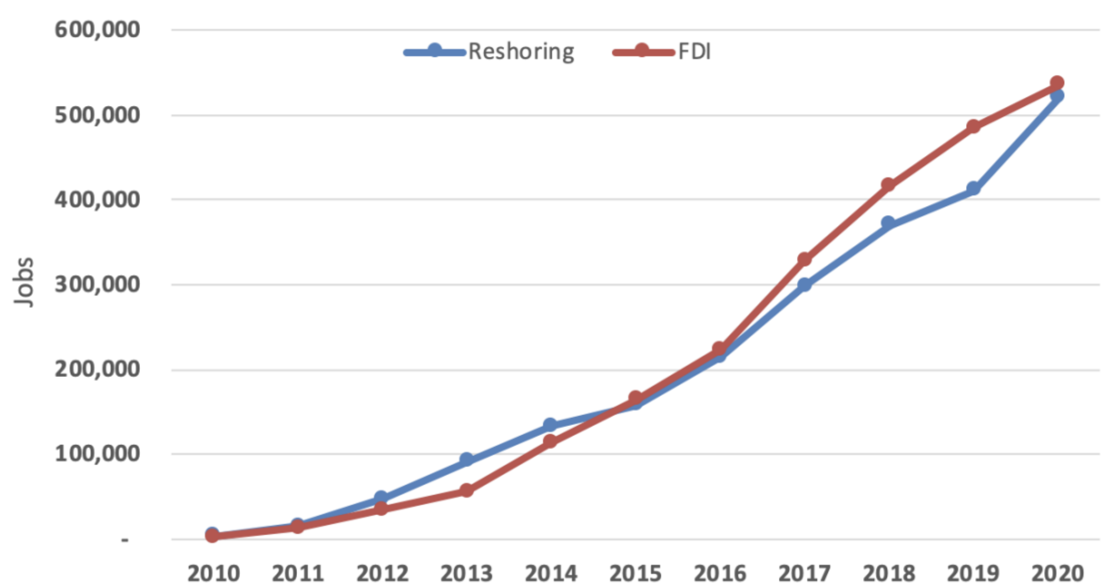
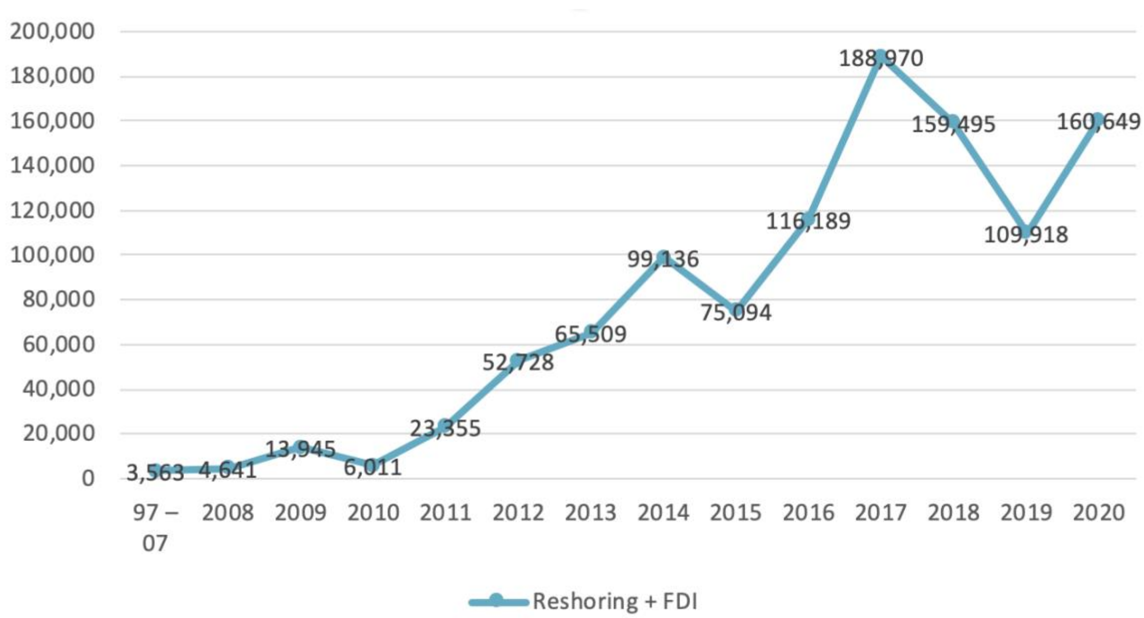


Exhibit 1c | **Jobs Announced, Reshoring + FDI by Year 2010-2020**



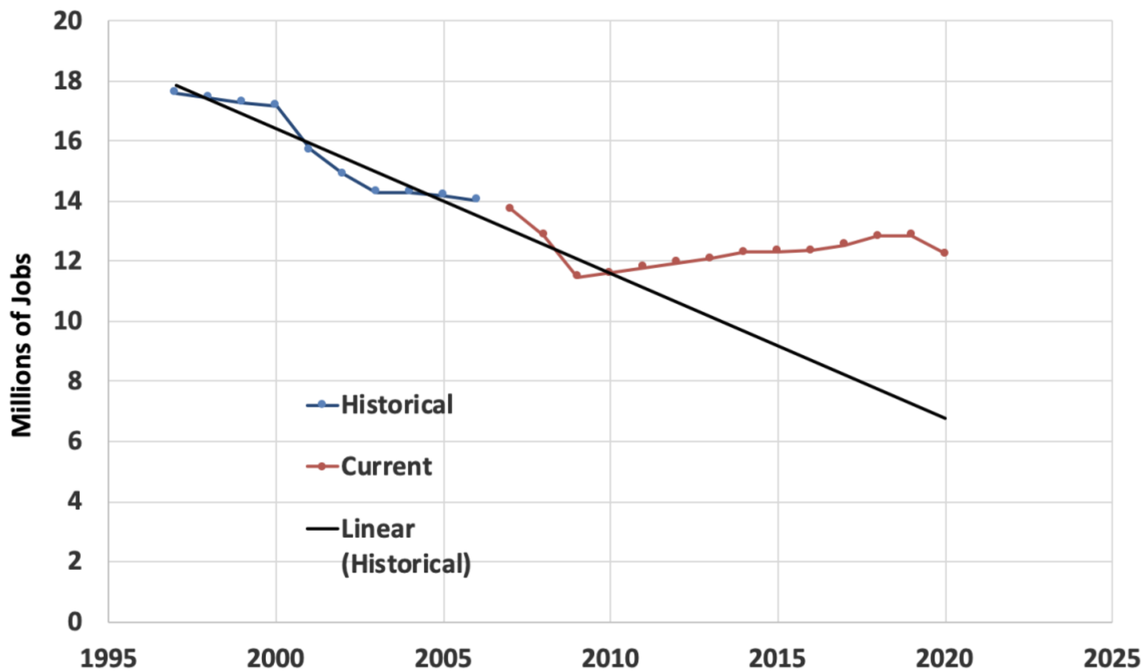
Trade Deficit Grew in 2020

In 2020 non-petroleum goods imports decreased about four percent and exports declined about 11 percent, resulting in an 8% increase in the goods trade deficit to $921 billion. The large drop in exports was primarily due to the world recession precipitated by COVID. The small decrease in imports was largely due to increased imports of PPE and of "stay at home" products, also driven by the COVID pandemic[2].

There is no measure of offshoring announcements or implementation. We did not observe a high rate of announcements of offshoring. When measured by our overall trade deficit of about $500 billion/year, there are still three to four million U.S. manufacturing jobs offshore at current levels of U.S. productivity, representing a huge potential for U.S. economic growth. Measured by our $900 billion non-petroleum goods trade deficit there are about five million still offshore.

The trend in U.S. manufacturing employment, as per Exhibit 1d, is the best evidence that a combination of less offshoring and more reshoring and FDI is working. The chart shows a regression line based on 1997, before China joined the WTO, to 2006, before the great recession. If the trend had continued, U.S. manufacturing employment would be more than five million jobs lower than the actual level today. Most notably, in past recessions manufacturing employment dropped below the trend line. In the 2020 recession, the surplus above the trend line held approximately constant and is clearly increasing in 2021.

Exhibit 1d | **Manufacturing Employment in Millions, Actual vs 1997 to 2006 Trend**



[2] Real Exports, Imports, and Balance of Goods https://www.census.gov/foreign-trade/statistics/historical/realpetr.pdf

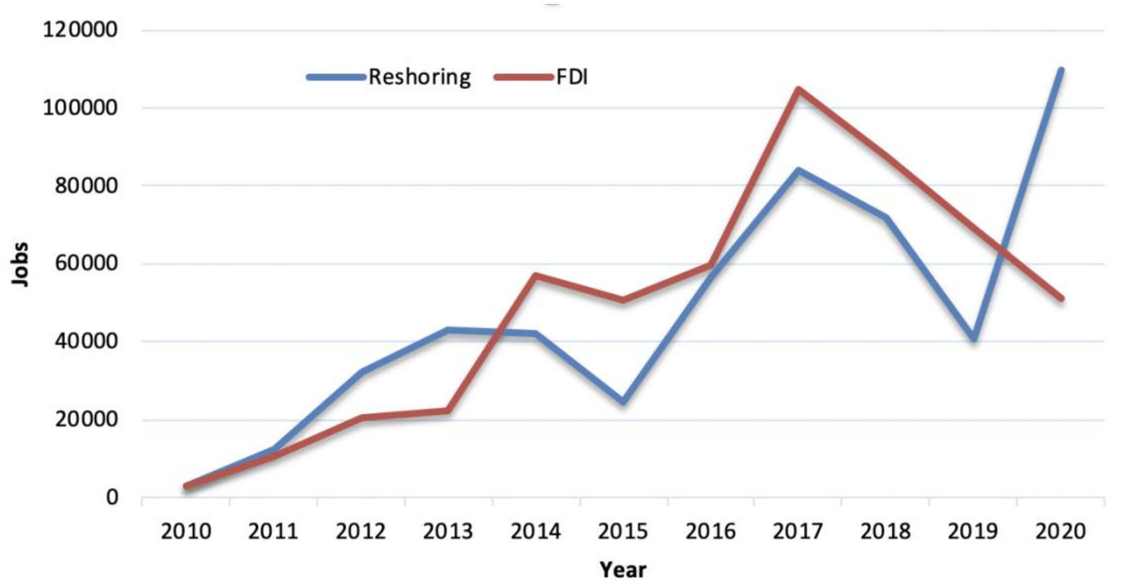
2. Job Announcements by Year, Reshoring and FDI

For the first time since 2013
reshoring is exceeding FDI in job creation,
and by nearly 100%.

In 2020 reshoring surged to a record high of 109,000 jobs announced. We believe the strength of the trends in recent years is largely based on a combination of greater U.S. competitiveness due to corporate tax and regulatory cuts, increased recognition of the total cost of offshoring and rising concern over China's competitiveness and favoritism for Chinese state-owned enterprises. The decline from the 2017 peak is due to business uncertainty caused by President Trump's tariffs. The 2020 recovery-jump in reshoring was driven by import shortages observed during the pandemic.

The high rate of 2020 reshoring vs. FDI also indicates that U.S. headquartered companies are starting to understand the same benefit to U.S. production that foreign companies have understood over the last decade.

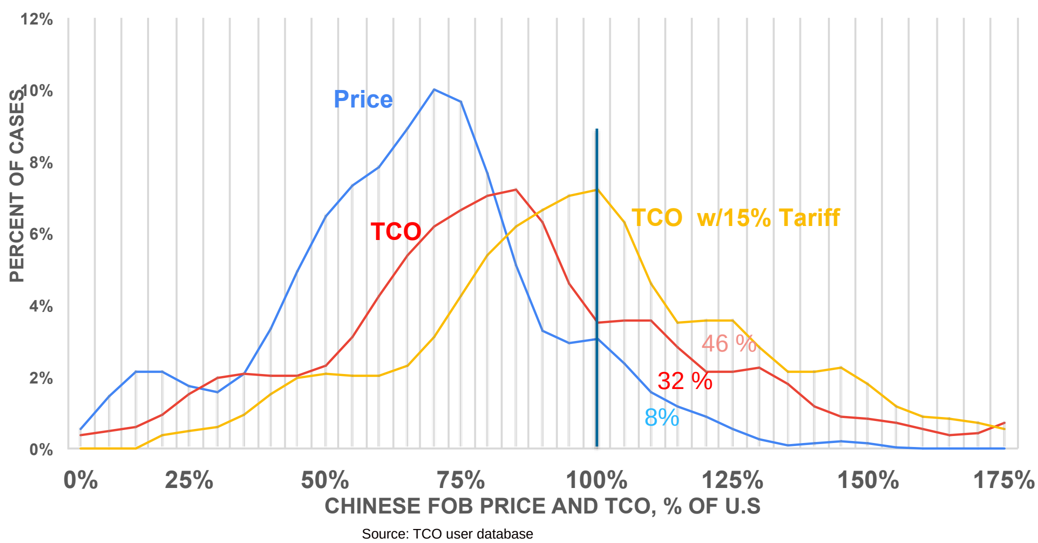
Exhibit 2 | **Job Announcements by Year, Reshoring and FDI, 2010-2020**



3. Factors Cited for Reshoring + FDI

About 60% of companies decide to offshore based on comparing wage rates, FOB prices or landed costs. Much of the strength of the reshoring trend has been due to companies becoming familiar with a broad range of factors (costs and risks) they had previously ignored. Understanding the reasons other companies have given for reshoring helps companies to determine whether those reasons apply to them also. A broad range of costs and risks can be quantified using the free online Total Cost of Ownership Estimator®. The Impact of Using TCO shows that shifting decisions from a price basis to TCO can be expected to drive reshoring of 20 to 30% of what is now imported. In Exhibit 3a the percentage of work that is most profitably sourced domestically raises from 8% to 32% when the sourcing metric shifts from FOB price to TCO.

Exhibit 3a | **Chinese Price & TCO As A Percentage of U.S. Price & TCO**



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Positive Factors are the values that attracted the company to their U.S. site and that they achieved here. These factors are similar for reshoring and FDI with the following exceptions.

- Reshoring places higher emphasis on Made-in-USA image (695 vs 147), redesign of the product (284 vs 75 mentions), and impact on domestic economy (483 vs 265).
- FDI places more emphasis on government incentives (795 vs 472), skilled workforce (607 vs 424), and Proximity to customers (894 vs 472).
- Since reshoring is almost all from low-wage countries, reshoring companies have increased automation to make up for higher domestic hourly labor cost. This trend more recently also applies to FDI.
- Since most FDI is primarily from other developed countries, Made-in-USA is a less powerful sales argument. Shifting from Made-in-Germany to Made-in-USA has less brand value than shifting from Made-in-China.
- Foreign companies can be recruited by all 50 states and often have larger projects; thus, they receive more government incentives. This may be shifting to include reshoring, with the essential products push by the U.S. government.

Negative Factors are the negative issues experienced offshore. Most of the issues are related to distance: freight, delivery, inventory, etc. Others are country specific: rising wages, IP risk, political instability, etc.

Companies have consistently reported Positive Factors more often than Negative, probably because the companies place more value on demonstrating the wisdom of their current reshoring decision than on what went wrong with their earlier offshoring decision. Companies also do not want to offend the country they are leaving.

Overall, reporting of factors influencing reshoring and FDI has continued at a high rate, indicating heightened public interest and industry awareness of the previously “hidden costs”. In 2020, cases reported an average of 8.6 factors.

Not surprisingly, the largest shifts in factor reporting in 2020 were pandemic related. Covid-19 itself was the #1 cited factor in 2020. Negative Offshore Factors with substantial increases included: Supply chain disruption (1000% increase), Loss of Control, and Strained offshore relationships. Additionally, Green considerations saw the largest citing on record. We predicted Green considerations to become more relevant due to the new emission reduction initiative by the International Maritime Organization, along with other imminent mandates related to climate change. With heightened public awareness of climate change issues, consumers are increasingly demanding environmentally sound products. Local sourcing is intrinsically conducive to clean, sustainable production. Quality/rework/warranty remained the highest reported negative factor, cumulatively.

The rate of positive factor reporting remained similar to recent years. The biggest increases in positive factors were in Lead Time to market (pandemic related) and Underutilized Capacity (Perhaps due to decreased consumer demand in some categories due to COVID?) Citing of Tariffs, which increased 118% in 2019, fell by 50% in 2020. It is unclear if companies have adjusted to the tariffs, are waiting for them to be removed or view the topic as too politically charged.

Other factors mentioned in 2020, but not recorded in these Exhibits, include: national security, price gouging, Chinese ban on imports of recyclables, and investing to improve competitiveness.

Exhibit 3b | **Influencing Factors, Reshoring + FDI, 2010-2020**

Rank	2020 Negative Offshore Factor	# of times cited		Rank	Positive Domestic Factor	# of times cited
1	Quality/rework/warranty	359		1	Proximity to customers/market	1367
2	Freight cost	208		2	Government Incentives	1268
3	Supply chain interruption risk/Natural disaster risk/Political instability	194		3	Skilled workforce availability/training	1041
4	Total cost	179		4	Eco-system synergies	994
5	Tariffs	152		5	Image/brand	842
6	Green considerations	113		6	Impact on domestic economy	748
7	Delivery	109		7	Infrastructure	619
8	Inventory	101		8	Lead time/Time to market	561
9	Rising Wages	97		9	Automation/technology	447
10	Loss of control	76		10	Customer responsiveness improvement	414
11	Intellectual property risk	76		11	Higher productivity	371
12	Travel cost/time	68		12	Under-utilized capacity	368
13	Communications	63		13	Manufacturing/engineering joint innovation (R&D)	274
14	Currency variation	47		14	U.S. price of natural gas/chemicals/electricity	242
15	Price	41		15	Customization/Flexibility	213
16	Difficulty of innovation/product differentiation	31		16	Raw Materials Cost	207
17	Social/ethical concerns	27		17	Lean/other business process improvement techniques	182
18	Strained offshore relationships	23		18	Walmart	135
19	Product liability	22		19	3D Printing/Additive Manufacturing	57
20	Regulatory compliance	17		20	Labor concessions	37
21	Emergency air freight	10		21	Lower real-estate/construction	34

					cost	
22	Burden on staff	9				
22	Employee turnover	9				
24	Personnel risk	8				
25	Onsite audit cost	6				
25	Corruption	6				
27	Reputation risk	5				

4. Reshoring + FDI by Industry[3]

Only products that have been offshored/imported can be reshored. Thus, the products least suitable for offshoring never left, such as heavy, high volume minerals, high mix/low volume items or customized automation systems.

Historically, the most active reshoring is by those that left and probably should not have done so, including machinery, transportation equipment and appliances. More recently, we added to that list essential products of which the U.S. relies too heavily on imports, such as PPE, pharmaceuticals, rare earths, semiconductors and electric batteries. President Biden has ordered a review of four classes of essential products where American manufacturers rely on imports. Both 2020 and 2021 have seen a

[3] The table is sorted by industry, as defined by three-digit NAICs code. We also break out several active industries at the four and five-digit levels. To get complete data at the three-digit level, add these industries into the relevant three-digit category.

jump in cases in these industries and we expect that trend to accelerate in the coming years, as we discuss more broadly in **Chapter 11. 2021 Trends and Projections**.

As the data indicates, reshoring is focused on products whose size and weight, e.g. transportation equipment, or frequency of design change/volatility of demand, e.g. some apparel, suggest that offshoring never offered great total cost savings.

FDI has traditionally brought about 2/3 of the Transportation Equipment jobs. With FDI off 50% from 2017 and auto plants distracted by COVID, the Transportation Equipment industry saw a 25% reduction of reshoring + FDI job announcements in 2020.

The second and third largest industries, Computer and Electronic Products and Electrical Equipment, Appliances & Components continue to grow and have been dominated in recent years by solar panels and lithium ion batteries, robotics, drones and the beginning of a trend to semiconductors. Semiconductors will soar starting in 2021.

Medical Equipment and Chemicals (this year, primarily pharmaceuticals) saw the largest increases, driven by the pandemic-revealed U.S. dependencies and the need for PPE, vaccines and COVID-19 treatments.

Exhibit 4a | **Reshoring + FDI, Comparison of Top 10 Industries by % , 2020 vs. 2019**

		2020			2019		
2020 Rank by jobs	**Industry**	**Jobs**	**Companies**	**Industry % of Jobs**	**Jobs**	**Companies**	**Industry % of Jobs**
1	Transportation Equipment	29,185	141	19%	38,798	162	37%
2	Medical Equipment & Supplies	21,421	277	14%	3,094	67	3%
3	Chemicals	20,020	224	13%	3,630	54	3%
4	Electrical Equipment, Appliances & Components	19,677	122	13%	5,534	71	5%

5	Computer & Electronic Products	13,989	101	9%	10,575	114	10%
6	Machinery	10,949	77	7%	15,400	126	14%
7	Apparel & Textiles	7,845	89	5%	4,265	21	4%
8	Fabricated Metal Products	6,438	62	4%	3,000	92	3%
9	Food & Beverage	4,877	33	3%	5,024	53	5%
10	Primary Metal Products	4,493	36	3%	1,529	17	1%

Exhibit 4b |	**By Industry, Reshoring + FDI, 2010-2020**			
Rank by jobs	**Industry**	**Jobs**	**Companies**	**Industry % of jobs**
1	Transportation Equipment	319,262	1,085	32%
2	Computer & Electronic Products	121,027	657	12%
3	Electrical Equipment, Appliances & Components	98,281	558	10%
4	Chemicals	88,661	800	9%
5	Plastic & Rubber Products	50,438	508	5%
6	Medical Equipment & Supplies	48,150	417	5%
7	Apparel & Textiles	46,060	746	5%
8	Machinery	45,857	393	5%
9	Wood & Paper Products	44,414	150	4%
10	Fabricated Metal Products	37,280	497	4%
11	Primary Metal Products	30,937	207	3%
12	Food & Beverage	21,822	189	2%
13	Furniture and Related Products	20,305	246	2%
1	Nonmetallic Mineral Products	12,104	121	1%
15	Miscellaneous	10,397	134	1%

16	Hobbies (subset of Miscellaneous)	7,564	274	1%
17	Castings/Foundries - Subset of Primary Metal Products	6,579	68	1%
18	Energy, Petroleum & Coal Products	2,445	22	<1%
19	Services	308	10	<1%

5. Reshoring + FDI by Technology Level[4]

It is generally agreed that manufacturing High-Tech products is more desirable than Low-Tech: more investment, more R&D, higher pay, less risk of loss to low wage countries, etc.

[4] Tech level ratings are based on classifications derived from: https://www.oecd.org/sti/ind/48350231.pdf, and https://read.oecd-ilibrary.org/science-and-technology/revision-of-the-high-technology-sector-and-product-classification_134337307632#page1

Currently, reshoring and FDI are adding more High-Tech jobs than Low-Tech. This trend is important since the U.S. has a trade deficit in High-Tech products. While High and Medium-High tech are creating the lion's share of jobs, there has also been a recent uptick in Low-Tech, with increases in apparel, wood, and plastic and rubber industries, and now also PPE. Reshoring is stronger in High-Tech than FDI which is stronger in Medium-High due to the high % of transportation equipment in FDI. The mix of reshoring and FDI products is higher tech than the average of current U.S. manufacturing. The higher tech companies average more employees/company than do the lower tech companies.

We encourage the U.S. to become competitive on all tech levels to balance the trade deficit and employ a broader range of workers. High-Tech products represent too small a percentage of our consumption to allow the U.S. or any country to focus only on High-Tech. One challenge is to upskill our workforce so that more of them can work on more highly automated production of lower-tech products.

Exhibit 5 | **Technology Levels, Reshoring + FDI, 2010-2020**

	Reshoring		FDI		Reshoring + FDI	
Product Technology Level:	**Jobs**	**Companies**	**Jobs**	**Companies**	**Jobs**	**Companies**
High	28%	17%	18%	20%	21%	18%
Medium-High	36%	20%	48%	41%	44%	31%
Medium-Low	18%	22%	20%	25%	19%	24%
Low	18%	41%	14%	13%	15%	27%
H+MH	64%	37%	66%	61%	65%	49%
ML+L	36%	63%	34%	39%	35%	51%

6. Top 20 Countries From: Reshoring, FDI and Combined

China as the source of 46% of reshoring, cumulative 2010 to 2020. This figure is down from prior years. The rate of reshoring from China did drop in 2019 and 2020, but the number is also lower by a few percentage points due to data refinement. Only about 30% of reshoring cases report Country From. We suspect the actual number of jobs returning from China is even greater, because companies don't want to report/advertise that fact for fear of retaliation. Many cases do not mention country or refer to "Asia" or "returned from offshore." China reshoring cases are broadly distributed across industry categories.

FDI is heavily from Germany (18%) and Japan (16%), both driven by transportation equipment, and more recently China (17%), driven by a broad range of industries. We know country of origin in 100% of FDI cases because we know the home country of the parent company.

As a result of the Coronavirus pandemic, FDI slowed relative to reshoring in 2020. See more in *Section 11. 2020 Trends and Projections*.

Exhibit 6a | **Top 20 Country From, 2010-2020**

Reshoring					**FDI**				
Rank by jobs	**Country**	**Jobs**	**Companies**	**% of Jobs**	**Rank by jobs**	**Country**	**Jobs**	**Companies**	**% of Jobs**
1	China	58,817	896	46%	1	Germany	89,528	458	18%
2	Mexico	27,481	111	21%	2	China	87,701	321	17%
3	Canada	12,744	78	10%	3	Japan	81,261	410	16%
4	India	7,376	27	6%	4	Canada	32,576	243	6%
5	Japan	6,750	43	5%	5	Korea	31,527	128	6%

6	Singapore	4,320	5	3%	6	United Kingdom	22,016	147	4%
7	Germany	1,971	24	2%	7	Mexico	21,291	39	4%
8	Russia	1,755	5	1%	8	Italy	20,177	128	4%
9	Switzerland	1,539	8	1%	9	Switzerland	19,227	123	4%
10	Spain	1,215	5	1%	10	Austria	12,785	42	3%
11	Taiwan	1,121	22	1%	11	Sweden	12,353	59	2%
12	United Kingdom	1,002	14	1%	12	India	11,327	80	2%
13	Luxembourg	621	5	0%	13	Australia	11,006	29	2%
14	Italy	470	22	0%	14	France	10,352	122	2%
15	Jordan	405	3	0%	15	Taiwan	9,504	32	2%
16	Sri Lanka	373	5	0%	16	Spain	8,601	47	2%
17	Turkey	338	5	0%	17	Netherlands	8,600	63	2%
18	Honduras	324	3	0%	18	Israel	6,591	51	1%
19	United Arab Emirates	219	3	0%	19	Brazil	6,156	38	1%
20	Hungary	189	3	0%	20	Denmark	5,697	39	1%

Exhibit 6b | **Country From, Reshoring + FDI, 2010-2020**

Rank By Jobs	**Country**	**Jobs**	**Companies**	**% of Jobs**
1	China	146,517	1,217	22%
2	Germany	91,499	482	14%
3	Japan	88,011	453	13%
4	Mexico	48,772	150	7%
5	Canada	45,320	321	7%

6	Korea	31,649	141	5%
7	United Kingdom	23,017	161	3%
8	Switzerland	20,766	131	3%
9	Italy	20,646	149	3%
10	India	18,703	107	3%
11	Austria	12,785	42	2%
12	Sweden	12,515	67	2%
13	Australia	11,006	34	2%
14	Taiwan	10,625	53	2%
15	France	10,352	124	2%
16	Spain	9,816	52	1%
17	Netherlands	8,667	66	1%
18	Singapore	7,560	17	1%
19	Israel	6,591	51	1%
20	Brazil	6,205	40	1%
21	Denmark	5,697	39	1%
22	Ireland	5,036	42	1%
23	Russian Federation	3,882	11	1%
24	Belgium	3,612	40	1%
25	United Arab Emirates	3,477	6	1%
26	South Africa	2,877	11	<1%
27	Luxembourg	2,061	28	<1%
28	Turkey	1,932	22	<1%
29	Finland	1,598	23	<1%
30	Saudi Arabia	1,500	5	<1%
31	Norway	1,419	15	<1%

32	Poland	1,203	6	<1%
33	Czech Republic	977	6	<1%
34	Thailand	813	14	<1%
35	Portugal	617	9	<1%
36	Jordan	405	3	<1%
37	Chile	375	6	<1%
38	Sri Lanka	373	5	<1%
39	Honduras	324	3	<1%
40	Colombia	293	3	<1%
41	Latvia	225	2	<1%
42	Malaysia	194	7	<1%
43	Hungary	189	3	<1%
44	Peru	186	4	<1%
45	Vietnam	156	6	<1%
46	Romania	153	2	<1%
47	New Zealand	150	5	<1%
48	Cyprus	132	2	<1%
49	Lithuania	128	3	<1%
50	Barbados	75	2	<1%
50	Kuwait	75	3	<1%
51	Greece	69	2	<1%
52	Slovenia	68	3	<1%
53	Lebanon	54	3	<1%
54	Egypt	41	6	<1%
55	Pakistan	38	5	<1%

56	Ethiopia	27	3	<1%
57	Haiti	22	3	<1%
58	Argentina	0	0	<1%
59	Iceland	0	2	<1%
60	Oman	0	2	<1%
61	Philippines	0	0	<1%
62	Honduras	0	3	<1%

7. Reshoring + FDI by International Regions From

At 61%, most Reshoring is from Asia.

About 70% of Reshoring cases do not report Country or International Region From. We expect the true percentage from Asia is higher, due to the risks and subsequent silence about leaving China.

FDI used to come primarily from Western Europe and Japan. With the increase in Chinese investment in the early 2010's, Western Europe and Asia are cumulatively about equal.

Exhibit 7a | **Reshoring by International Region, 2010- 2020**

Rank by jobs	Region	Jobs	Companies	Jobs/Company	% of jobs in cases that report region
1	Asia	77,344	988	78	61%
2	North America	37,822	165	230	30%
3	Western Europe	9,129	113	81	7%
4	Eastern Europe	1,134	5	210	1%
5	Middle East	961	14	71	1%
6	South/Central	675	11	61	1%

	America				
7	Africa	70	3	26	<1%
8	Australia/Oceania	0	5	0	<1%

Exhibit 7b | FDI by International Region, 2010-2020					
Rank by jobs	**Region**	**Jobs**	**Companies**	**Jobs/Company**	**% of jobs**
1	Asia	226,295	987	229	43%
2	Western Europe	224,090	1,358	165	43%
3	North America	36,285	269	135	7%
4	Middle East	11,688	84	139	2%
5	Eastern Europe	10,263	21	489	2%
6	South/Central America	9,917	48	207	2%
7	Australia/Oceania	4,758	23	211	1%
8	Africa	2,877	11	274	1%

Exhibit 7c | FDI + Reshoring by International Region, 2010-2020					
Rank by jobs	**Region**	**Jobs**	**Companies**	**Jobs/Company**	**% of jobs by cases that report country**
	Region not specified	320,544	3,067	105	NA
1	Asia	303,639	1,975	154	49%
2	Western Europe	233,218	1,471	159	38%
3	North America	74,107	433	171	12%
4	Middle East	12,649	98	130	2%

5	South America	10,592	59	180	2%
6	Australia/Oceania	10,263	26	389	2%
7	Eastern Europe	5,892	28	211	1%
8	Africa	2,947	13	223	<1%

Comparing reshoring and FDI across regions and countries provides an insight into the trends and what is feasible. China is the source of as much FDI as Germany, but about 30X as much reshoring. Asia and Western Europe have a similar contrast.

Exhibit 7d | **Comparison of European and Asian Reshoring and FDI**		
Region	**Reshoring Jobs**	**FDI Jobs**
Austria	0	12,785
Germany	1,971	89,528
Switzerland	1,539	19,227
DACH Total (Deutschland, Austria and Switzerland (CH)	3,510	121,540
Western Europe	9,129	224,090
Asia, including China	77,344	226,295
China	58,817	87,701

8. Reshoring + FDI Cases by State

In 2020 California, Texas, and North Carolina led in number of jobs announced. South Carolina maintained its strong long-term lead. California's surge was driven mostly by a large Government contract given to Maddox Defense for PPE.

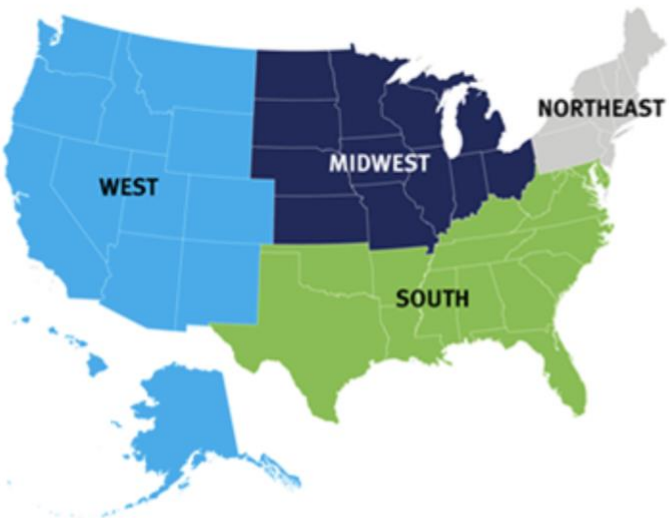
Exhibit 8a |	Jobs by State, Top 10, 2020 Only							
Reshoring			**FDI**			**Reshoring + FDI**		
Rank by jobs	**State**	**Jobs**	**Rank by jobs**	**State**	**Jobs**	**Rank by jobs**	**State**	**Jobs**
1	CA	14,035	1	GA	7,310	1	CA	14,459
2	TX	10,625	2	TN	3,924	2	TX	13,445
3	NC	9,977	3	AZ	3,300	3	NC	13,160
4	OH	8,964	4	WI	3,210	4	OH	10,881
5	IN	7,007	5	NC	3,183	5	IN	9,297
6	AL	5,289	6	SC	3,161	6	GA	9,097
7	MA	4,890	7	TX	2,820	7	AL	7,593
8	VA	4,153	8	AL	2,304	8	WI	6,469
9	WI	3,259	9	IN	2,291	9	SC	6,260
10	MS	3,132	10	CO	2,070	10	TN	6,216

Exhibit 8b |	Reshoring + FDI by State, 2010 - 2020				
Rank by jobs	**State**	**Jobs**	**Companies**	**Average Jobs/ Company**	**% of Jobs**
1	SC	93,965	481	195	9%
2	TX	69,992	482	145	7%
3	TN	66,041	308	214	7%
4	MI	61,022	362	169	6%

5	NC	60,265	458	132	6%
6	GA	60,055	351	171	6%
7	AL	57,142	287	199	6%
8	OH	54,114	374	145	5%
9	NY	39,457	460	86	4%
10	LA	34,249	145	237	3%
11	KY	32,201	198	163	3%
12	CA	32,005	581	55	3%
13	IN	29,422	263	112	3%
14	VA	28,208	208	136	3%
15	AZ	26,658	85	313	3%
16	NV	24,047	28	853	2%
17	MA	22,065	251	88	2%
18	MS	21,478	115	187	2%
19	WI	19,508	163	120	2%
20	FL	16,987	153	111	2%
21	IL	16,277	199	82	2%
22	PA	15,019	272	55	1%
23	AR	9,516	93	103	1%
24	CO	9,452	150	63	1%
25	MO	9,422	108	87	1%
26	KS	9,186	42	217	1%
27	OR	8,989	88	102	1%
28	NH	8,197	36	228	1%
29	NJ	7,590	101	76	1%
30	IA	6,976	47	147	1%
31	UT	6,733	66	102	1%
32	WV	5,904	37	161	1%

33	RI	4,965	39	126	<1%
34	WA	4,592	95	48	<1%
35	ME	3,782	82	46	<1%
36	CT	3,434	70	49	<1%
37	MD	3,282	88	37	<1%
38	NM	3,229	19	174	<1%
39	MN	3,066	122	25	<1%
40	VT	2,490	41	61	<1%
41	DE	2,459	26	94	<1%
42	PR	2,265	13	180	<1%
43	OK	2,135	20	106	<1%
44	NE	2,069	32	65	<1%
45	SD	1,155	13	92	<1%
46	ID	619	32	19	<1%
47	MT	247	25	10	<1%
48	WY	206	14	15	<1%
49	ND	150	11	14	<1%
50	HI	27	3	10	<1%
51	AK	0	0	0	0

9. Reshoring + FDI by U.S. Region



The South and Midwest continue to dominate over the 11 years measured.

Exhibit 9 |	Reshoring + FDI by U.S. Region, 2010-2020			
US Region	**Jobs**	**Companies**	**% of Jobs**	**Average jobs/company**
South	566,190	3,469	56%	163
Midwest	219,110	1,739	22%	126
West	117,107	1,191	12%	98
Northeast	107,269	1,361	11%	79

10. Nearshoring

Nearshoring to Mexico or Canada is better for the U.S. than work staying further offshore, e.g. in Asia.

For example, exports from Mexico to the U.S. have 40% U.S. content whereas exports from China have only 5% U.S. content. Transportation equipment and appliances nearshore the most. More companies nearshore to Mexico than to Canada due to greater cost advantage. Our data is not as complete for nearshoring, which is less often reported in U.S. news sources. The nearshoring data includes cases in Canada and Mexico by companies headquartered in the U.S. or outside of N. America.

Exhibit 10 |	**Nearshoring, 2010-2020**			
Country	**Jobs**	**Companies**	**% from Asia**	**% from Western Europe**
Canada	1,530	11	86%	14%
Mexico	15,180	27	82%	18%

11. 2021 Trends and Projections

Based on the first half of 2020 we projected 2020 reshoring + FDI jobs announced at about 110,000. The actual number ended up over 160,000. We anticipate that the surge will continue in 2021 at the 2H2020 rate, reaching a record 200,000 for the year.

Exhibit 11a |	Rate of Jobs Announced			
	1H2020		2H2020	
	Jobs	Companies	Jobs	Companies
Reshoring	34,309	321	75,289	773
FDI	20,729	144	30,322	246
Reshoring + FDI	55,037	465	105,611	1,019

In addition to our own data, multiple surveys show that more companies, driven by the virus crisis, have decided to reshore. We expect the 2021 data to be consistent with the survey results. Also due to the pandemic, we are seeing U.S. reshoring outpacing FDI for the first time since 2013. This trend is consistent with a multi-year slowing in global FDI. COVID induced business uncertainty is causing companies to emphasize operations in their home countries. We anticipate 2021 reshoring + FDI job announcements to be near 200,000. up by at least 25%.

Survey results showed a surge in reshoring plans in 2020, subject to the emotion of the pandemic, and have continued in 2021 despite the reopening.

MHL News, Feb. 16, 2021, "Supply Chain Resiliency to See Major Investment Over Next Two Years"

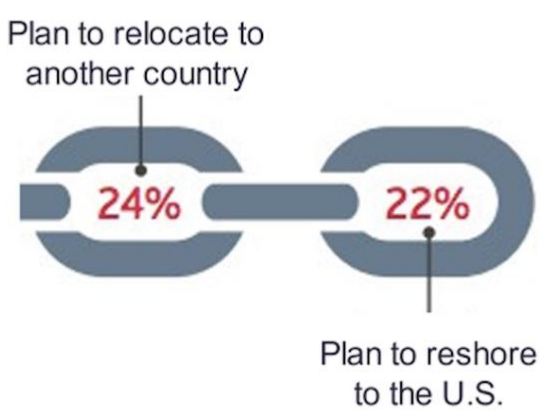
Gartner Survey: 1300 Supply Chain Professionals:

1. 60% of supply chains designed for cost efficiency not resilience
2. 87% plan investments in resiliency within 2 years
3. 30% shifting from global to regionalized model
4. 56% think automation will enable reshoring

Retail Wire, Feb 5, 2021, “Are U.S. manufacturing sources an absolute necessity for American retailers today?”

1. 65% established (24%), expanded (41%) local and domestic manufacturing for better control, driven by COVED-19
2. Reasons: quality control (34%), shorter lead times (23%), better inventory management (22%), matching product to local demand (14%)
3. Consumer considerations: sustainability (66%), societal impact (60%)
4. Blue Yoder Research Exec: “pandemic, however, accelerated the need for more onshoring strategies to address future crises.”

In the fall of 2020 the **2021 BDO MANUFACTURING CFO OUTLOOK SURVEY** presented a thorough review of the specific steps that companies are taking to improve on innovation, supply chain, skilled workforce and more.



From Loley and Lardner LLP, September, 2020, [2020 Global Supply Chain Disruption and Future Strategies Survey Report](#) :

From ThomasNet, May/June 2020, [Manufacturer Interest in Reshoring, Hiring, and Apprenticeships Increasing During COVID-19 Pandemic](#):

> ***"Supply Chain Shifts:*** *Two in three (69%) manufacturing companies are looking into bringing production to North America (compared to 54% in February)."*

The surge will be accelerated by President Biden's American Jobs Plan, Supply Chain Order and Buy American Order. The market demand and government focus on U.S. self-sufficiency in EV batteries, rare earth minerals, pharmaceuticals/PPE and semiconductors alone will result in 10,000s of jobs announced. In 1Q20 60% of cases mentioned the pandemic as a factor in reshoring decisions, declining to 40% in 2Q20. Medical equipment and PPE are the first responders of new reshoring and FDI, with cases up nearly 2000% (277 vs. 14) and jobs up 400% from 2019 (21,421 vs. 4,275 jobs.) With PPE, we included only cases that appear to have longevity. The case rate would be even higher if we included apparently temporary emergency production projects, such as GM making ventilators and local social groups and high fashion salons making masks.

There is a substantial pipeline of huge projects that have been announced but are not firm enough to be included in our database. These projects include: Foxconn in Wisconsin, Apple, SoftBank and numerous shale gas refinery projects. Foxconn is now considering producing EV's in the Wisconsin facility instead of display panels. It remains to be seen whether the political and economic climates that motivated the earlier announcements are still strong enough to enable follow through.

In 2020 more companies are mentioning Supply Chain Optimization and Lead time, responding to problems created by the pandemic. Also, Impact on Domestic Economy is frequently mentioned. Companies are increasingly appreciating that their continued success requires their home market to be strong~~.~~

Results in 2021 will depend largely on economic recovery from the COVID crisis. There are two forces that will conflict. On the negative side, the virus' continued impact on the economy and business uncertainty. On the positive front, the virus' lesson about the country's lack of self-sufficiency will spur growth in local sourcing.

The Biden administration offers both head and tail winds for progress. Corporate tax rates, regulations, tariffs, skilled workforce, etc. could play an important role. The 2017 upswing in activity was in response to lower tax rates and regulations. Below are some factors that may impact 2021 and 2022 relative to 2020.

Forces likely to slow reshoring and FDI:

1. **Concern about new tax rates, regulations, etc.**
2. **COVID related unemployment payments and remote schooling making work unattractive for some**
3. **Disrupted supply chains causing lack of availability of components**

Forces likely to help reshoring and FDI:

1. **Government actions to reduce national dependence on imports of key products** - This effort is starting aggressively with medical products, chips, rare earth minerals, EV batteries, etc. to fill in current supply chain gaps. President Biden is prioritizing reshoring highly but applying different methods than President Trump.
2. **Continued growth in efforts by MEPs (Manufacturing Extension Partnerships), EDOs (economic development organizations) and states to enable reshoring** - The Reshoring

Initiative is deeply involved in these efforts. We are currently driving reshoring thru MEPs in Illinois, NYS, Ohio and Rhode Island and expect several more MEPs soon.

3. **Continued decline in the USD** - The dollar is down 10% from a brief March 2020 high and is approaching a 2018 low. A gradual further 20% decline in the USD would reshore over one million manufacturing jobs over several years by making U.S. manufacturing more competitive at home and abroad.
4. **Corporate responsibility expands** The Business Roundtable's August 2019 Statement on the Purpose of a Corporation expanded the definition of stakeholders from just shareholders to now include employees, suppliers and community. We anticipate companies will recognize that reshoring is the most effective and least expensive way to fulfill their commitments.
5. **Shifting markets** - World growth recovery will make other markets more attractive for offshore suppliers leaving domestic suppliers with less competition to supply the U.S.
6. Continued increases in usage of TCO (Total Cost of Ownership) instead of price in making sourcing decisions. Universal TCO usage, alone, would reshore about 1.5 million jobs.
7. **Continued improvement in skilled workforce programs**
8. **Automation, IoT, Industry 4.0, AI shrinking the unit labor cost gap**
9. **Improving environmental consciousness** - Domestic supply chains are more transparent than offshore and less polluting, cutting the world's environmental impact by up to 25%, depending on the product. Sustainability practices will continue to increase as a corporate strategy and will help drive reshoring and FDI.
10. **Possible aggressive "decoupling" by China**

Ambiguous:

1. **Higher interest rates** - Will eventually raise the value of the USD (headwind) but will surely increase the carrying cost of inventory (tailwind), which is increased by offshoring.
2. **Possible actions on tariffs, trade with China, etc.** - Likely to be long-term favorable but temporarily disruptive.
3. **Oil prices and environmental regulations -** Higher prices increase freight costs and tend to make U.S. shale gas more of an advantage for making plastics and for having competitive electricity rates.

There is probably an average 12-month lag time between the announcement or implementation of policy changes and a significant response in the trends. Best guess forecast: 2021 reshoring will reach a new record and FDI will recover moderately. The biggest challenge will be bolstering our skilled workforce, which is not adequate to support a much higher rate of reshoring.

The table below summarizes the head and tail winds specific to the Biden administration. See further details in the February 2021 eNewsletter.

Exhibit 11b **Helping and Hindering Plans from the Biden Administration**
Plans that will accelerate reshoring:
Add 5 million manufacturing jobs
Buy American for government purchases: Increase the difference in price required to justify foreign sourcing and use MEPs for scouting to find domestic sources.
Directly drive reshoring by Made in America tax credit. Use subsidies, federal matching, and tax incentives to make American products more competitive and incentivize companies to reshore and expand here.
10% offshoring tax penalty on overseas production sold in the U.S.
Public health effort of $400 Billion for vaccinations, testing, PPE, etc.
Strengthen the Affordable Care Act
$50 billion to apprenticeship and other training programs Made in America product labeling: Crack down on false claims
Tax companies that are parking income in tax havens offshore
China and steel tariffs are staying for now. Steel tariffs on allies likely to come off sooner.
Biden plans that will hinder reshoring:
Strong U.S. Dollar – Treasury Secretary Yellen: "The United States doesn’t seek a weaker currency to gain competitive advantage"
Raise minimum wage to $15/hr.
Raise the corporate tax rate from 21% to 28%
Repeal right to work laws
Lower eligibility for Medicare to 60

Make college free for low income families ($125,000 or less)
Do nothing about products outsourced offshore
Conclusion: President Biden has the right objective: Add 5 million manufacturing jobs. He believes the objective is achievable. "Biden believes that American workers can out-compete anyone, but their government needs to fight for them." The Biden plan does not, however, include the elements to make his belief real by reducing U.S. costs by 20% vs. offshore and assuring universal use of Total Cost of Ownership. Competitiveness requires a lower USD and motivating many more students to choose a manufacturing apprenticeship or engineering degree instead of a liberal arts degree. Unless he takes these actions, Biden will, like Trump, not reduce the goods trade deficit.

Conclusion

The revised rate of reshoring plus FDI job announcements in 2020 was up about 2500% from 2010. The cumulative 780,000+ jobs brought back represent about 7% of U.S. manufacturing employment. The acceleration of jobs coming back combined with the decline in the rate of offshoring has resulted in a plateauing of the non-petroleum goods trade deficit at about $900 billion/year. The COVID crisis has revealed the U.S.'s over-dependence on imports.

This Data Report should motivate companies to further reevaluate their sourcing and siting decisions by considering all of the cost, risk and strategic impacts flowing from those decisions. Policy makers can use the continued reshoring successes as proof that it is feasible to bring millions of jobs back.

Continuation of the trend depends on companies reevaluating their offshoring. Acceleration of the trend depends on the government leveling the playing field, making the United States more price competitive. The Reshoring Initiative offers many tools and resources, which are listed below. Please contact us for help driving reshoring for your company, your region and our country.

RESHORING INITIATIVE RESOURCES

Total Cost of Ownership Estimator® - Free online tool that helps companies account for all relevant factors — overhead, balance sheet, risks, corporate strategy, green and other external and internal business considerations — to determine the true total cost of ownership. It can be used by companies to make smarter sourcing decisions and to sell against imports. Analysis of TCO Estimator user data shows that 20 to 30% of imported products can be made here more profitably. Call on the Reshoring Initiative for help using this and other tools.

Import Substitution Program (ISP) - Manufacturers select the products at which they excel. ISP identifies and qualifies the major relevant importers of those products. The manufacturers then use TCO to convince the importers to reshore. Offered directly to manufacturers and thru MEPs, EDOs (economic development organizations), trade associations and equipment sellers.

Supply Chain Gap Program - Identifies U.S. supply chain gaps. Helps U.S. manufacturers fill the gaps. Helps EDOs find foreign firms to fill the gaps.

Competitiveness Toolkit - Designed to quantify and select the optimal national policy changes to bring back a desired number of jobs.

Corporate Social Responsibility Estimator - Provides a model for estimating sourcing decisions' impact on pollution and on the domestic economy.

Reshoring Library – You can use Advanced Search to identify companies that have reshored or done FDI in relevant industries or regions. Search for potential customers.

Reshoring Initiative Data Report – Annual reports track the drivers, impact and momentum of the trend.

Data refinement is ongoing.

1. Companies, industry associations, states, EDOs and others are encouraged to send us information on reshoring and FDI cases. Send us links to articles and announcements.
2. To see a full list of companies in the database click here.
3. If your company is listed, email us to request your company's data to review, edit and return. Please include your company name and detailed contact info.

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About Us

Reshoring is gaining momentum throughout the country. Many companies have already repatriated some of their manufacturing efforts, and the Reshoring Initiative is continuing to spread the "return-manufacturing-home" message to help other manufacturers realize America is an advantageous place to produce goods.

The Reshoring Initiative, founded in early 2010, takes action by helping manufacturers realize that local production, in some cases, reduces their total cost of ownership of purchased parts and tooling. The Initiative also trains suppliers how to effectively meet the needs of their local customers, giving the suppliers the tools to sell against lower priced offshore competitors.