

billion 2015 dollars

								Average annual percentage change, 2020–2050
Region and sector	2020	2025	2030	2035	2040	2045	2050	
OECD								
United States								
Energy-intensive manufacturing	\$2,575	\$3,000	\$3,253	\$3,539	\$3,810	\$4,128	\$4,454	1.8
Non-energy-intensive manufacturing	\$3,666	\$4,588	\$5,061	\$5,690	\$6,332	\$7,117	\$7,949	2.6
Nonmanufacturing	\$2,456	\$2,891	\$3,170	\$3,493	\$3,811	\$4,191	\$4,594	2.1
Services	\$25,509	\$30,567	\$33,577	\$37,271	\$40,916	\$45,131	\$49,451	2.2
Total	\$34,206	\$41,047	\$45,061	\$49,994	\$54,868	\$60,567	\$66,447	2.2
Canada								
Energy-intensive manufacturing	\$245	\$299	\$331	\$368	\$406	\$448	\$490	2.3
Non-energy-intensive manufacturing	\$311	\$398	\$433	\$475	\$519	\$568	\$618	2.3
Nonmanufacturing	\$458	\$520	\$568	\$620	\$668	\$715	\$765	1.7
Services	\$1,577	\$1,986	\$2,149	\$2,335	\$2,537	\$2,756	\$2,983	2.1
Total	\$2,590	\$3,203	\$3,481	\$3,797	\$4,129	\$4,486	\$4,856	2.1
Mexico and other OECD Americas								
Energy-intensive manufacturing	\$811	\$937	\$1,033	\$1,140	\$1,246	\$1,359	\$1,477	2.0
Non-energy-intensive manufacturing	\$926	\$1,168	\$1,278	\$1,412	\$1,565	\$1,747	\$1,961	2.5
Nonmanufacturing	\$755	\$879	\$975	\$1,081	\$1,191	\$1,287	\$1,364	2.0
Services	\$2,888	\$3,570	\$4,001	\$4,479	\$4,979	\$5,475	\$5,960	2.4
Total	\$5,380	\$6,554	\$7,287	\$8,112	\$8,980	\$9,868	\$10,762	2.3
OECD Europe								
Energy-intensive manufacturing	\$4,488	\$5,018	\$5,256	\$5,511	\$5,760	\$6,020	\$6,309	1.1
Non-energy-intensive manufacturing	\$7,156	\$8,690	\$9,305	\$10,032	\$10,798	\$11,646	\$12,559	1.9
Nonmanufacturing	\$4,159	\$4,783	\$5,069	\$5,328	\$5,577	\$5,832	\$6,091	1.3
Services	\$27,308	\$31,496	\$33,635	\$35,734	\$37,970	\$40,407	\$43,042	1.5
Total	\$43,111	\$49,987	\$53,264	\$56,605	\$60,104	\$63,905	\$68,000	1.5
Japan								
Energy-intensive manufacturing	\$1,013	\$1,107	\$1,095	\$1,067	\$1,039	\$1,016	\$998	0.0
Non-energy-intensive manufacturing	\$2,584	\$3,121	\$3,206	\$3,249	\$3,286	\$3,325	\$3,372	0.9
Nonmanufacturing	\$630	\$676	\$666	\$653	\$641	\$628	\$615	-0.1
Services	\$5,566	\$5,976	\$6,116	\$6,135	\$6,149	\$6,168	\$6,214	0.4
Total	\$9,793	\$10,881	\$11,083	\$11,105	\$11,116	\$11,137	\$11,199	0.4
South Korea								
Energy-intensive manufacturing	\$1,084	\$1,215	\$1,291	\$1,338	\$1,369	\$1,402	\$1,432	0.9
Non-energy-intensive manufacturing	\$1,508	\$1,830	\$1,998	\$2,102	\$2,172	\$2,255	\$2,328	1.5
Nonmanufacturing	\$372	\$423	\$457	\$487	\$509	\$532	\$553	1.3
Services	\$2,345	\$2,654	\$2,869	\$2,992	\$3,073	\$3,164	\$3,239	1.1
Total	\$5,309	\$6,122	\$6,615	\$6,919	\$7,122	\$7,353	\$7,552	1.2
Australia and New Zealand								
Energy-intensive manufacturing	\$175	\$182	\$194	\$206	\$218	\$228	\$238	1.0
Non-energy-intensive manufacturing	\$123	\$133	\$142	\$152	\$162	\$171	\$179	1.3
Nonmanufacturing	\$527	\$637	\$718	\$813	\$897	\$981	\$1,062	2.4
Services	\$1,801	\$2,073	\$2,337	\$2,604	\$2,858	\$3,109	\$3,377	2.1
Total	\$2,626	\$3,025	\$3,391	\$3,775	\$4,135	\$4,489	\$4,856	2.1
Total OECD								
Energy-intensive manufacturing	\$10,390	\$11,759	\$12,452	\$13,169	\$13,847	\$14,600	\$15,398	1.3
Non-energy-intensive manufacturing	\$16,274	\$19,927	\$21,423	\$23,113	\$24,832	\$26,828	\$28,966	1.9
Nonmanufacturing	\$9,358	\$10,809	\$11,623	\$12,475	\$13,293	\$14,167	\$15,045	1.6
Services	\$66,994	\$78,322	\$84,684	\$91,550	\$98,482	\$106,211	\$114,264	1.8
Total	\$103,015	\$120,818	\$130,182	\$140,307	\$150,455	\$161,806	\$173,673	1.8
Non-OECD								
Russia								

Energy-intensive manufacturing	\$721	\$845	\$910	\$978	\$1,037	\$1,086	\$1,117	1.5
Non-energy-intensive manufacturing	\$578	\$705	\$742	\$798	\$853	\$903	\$951	1.7
Nonmanufacturing	\$1,192	\$1,393	\$1,466	\$1,525	\$1,560	\$1,581	\$1,591	1.0
Services	\$3,553	\$4,144	\$4,194	\$4,361	\$4,448	\$4,476	\$4,469	0.8
<b>Total</b>	<b>\$6,044</b>	<b>\$7,087</b>	<b>\$7,311</b>	<b>\$7,661</b>	<b>\$7,898</b>	<b>\$8,045</b>	<b>\$8,128</b>	<b>1.0</b>
Other Europe and Eurasia								
Energy-intensive manufacturing	\$584	\$669	\$729	\$815	\$907	\$996	\$1,084	2.1
Non-energy-intensive manufacturing	\$460	\$552	\$602	\$667	\$736	\$804	\$872	2.2
Nonmanufacturing	\$996	\$1,149	\$1,284	\$1,423	\$1,560	\$1,694	\$1,824	2.0
Services	\$2,672	\$3,278	\$3,667	\$4,119	\$4,564	\$4,993	\$5,420	2.4
<b>Total</b>	<b>\$4,712</b>	<b>\$5,648</b>	<b>\$6,282</b>	<b>\$7,024</b>	<b>\$7,767</b>	<b>\$8,486</b>	<b>\$9,200</b>	<b>2.3</b>
China								
Energy-intensive manufacturing	\$13,218	\$16,128	\$17,835	\$19,089	\$19,964	\$20,665	\$21,104	1.6
Non-energy-intensive manufacturing	\$23,190	\$30,159	\$35,154	\$39,903	\$43,729	\$47,052	\$49,315	2.5
Nonmanufacturing	\$10,745	\$12,933	\$14,432	\$15,674	\$16,611	\$17,408	\$18,186	1.8
Services	\$29,694	\$41,438	\$52,516	\$64,041	\$75,581	\$87,631	\$98,862	4.1
<b>Total</b>	<b>\$76,846</b>	<b>\$100,658</b>	<b>\$119,938</b>	<b>\$138,707</b>	<b>\$155,885</b>	<b>\$172,757</b>	<b>\$187,467</b>	<b>3.0</b>
India								
Energy-intensive manufacturing	\$3,311	\$4,850	\$6,949	\$9,325	\$11,818	\$14,520	\$17,233	5.7
Non-energy-intensive manufacturing	\$2,526	\$4,087	\$5,957	\$8,070	\$10,418	\$13,077	\$15,962	6.3
Nonmanufacturing	\$3,750	\$5,326	\$6,981	\$8,733	\$10,599	\$12,591	\$14,448	4.6
Services	\$6,692	\$9,853	\$14,135	\$18,897	\$23,952	\$29,492	\$35,373	5.7
<b>Total</b>	<b>\$16,278</b>	<b>\$24,116</b>	<b>\$34,023</b>	<b>\$45,025</b>	<b>\$56,786</b>	<b>\$69,680</b>	<b>\$83,016</b>	<b>5.6</b>
Other Asia								
Energy-intensive manufacturing	\$3,226	\$4,053	\$4,866	\$5,833	\$6,901	\$8,045	\$9,241	3.6
Non-energy-intensive manufacturing	\$6,062	\$7,778	\$9,273	\$10,828	\$12,373	\$13,892	\$15,377	3.2
Nonmanufacturing	\$4,109	\$5,176	\$6,353	\$7,666	\$9,143	\$10,743	\$12,415	3.8
Services	\$11,758	\$15,155	\$18,724	\$22,447	\$26,403	\$30,576	\$34,788	3.7
<b>Total</b>	<b>\$25,156</b>	<b>\$32,162</b>	<b>\$39,216</b>	<b>\$46,773</b>	<b>\$54,821</b>	<b>\$63,256</b>	<b>\$71,820</b>	<b>3.6</b>
Middle East								
Energy-intensive manufacturing	\$1,392	\$1,691	\$1,875	\$2,040	\$2,179	\$2,275	\$2,345	1.8
Non-energy-intensive manufacturing	\$383	\$497	\$568	\$623	\$672	\$709	\$738	2.2
Nonmanufacturing	\$2,435	\$2,802	\$3,059	\$3,292	\$3,533	\$3,776	\$4,017	1.7
Services	\$4,545	\$5,670	\$6,636	\$7,550	\$8,456	\$9,364	\$10,251	2.7
<b>Total</b>	<b>\$8,755</b>	<b>\$10,660</b>	<b>\$12,139</b>	<b>\$13,505</b>	<b>\$14,841</b>	<b>\$16,123</b>	<b>\$17,350</b>	<b>2.3</b>
Africa								
Energy-intensive manufacturing	\$1,256	\$1,483	\$1,769	\$2,100	\$2,464	\$2,860	\$3,289	3.3
Non-energy-intensive manufacturing	\$921	\$1,143	\$1,359	\$1,601	\$1,864	\$2,141	\$2,430	3.3
Nonmanufacturing	\$3,114	\$3,581	\$4,155	\$4,754	\$5,394	\$6,073	\$6,795	2.6
Services	\$6,095	\$7,241	\$8,566	\$9,993	\$11,587	\$13,281	\$15,078	3.1
<b>Total</b>	<b>\$11,386</b>	<b>\$13,449</b>	<b>\$15,849</b>	<b>\$18,448</b>	<b>\$21,309</b>	<b>\$24,355</b>	<b>\$27,592</b>	<b>3.0</b>
Brazil								
Energy-intensive manufacturing	\$777	\$899	\$993	\$1,061	\$1,097	\$1,114	\$1,119	1.2
Non-energy-intensive manufacturing	\$481	\$630	\$696	\$747	\$780	\$803	\$820	1.8
Nonmanufacturing	\$668	\$777	\$845	\$911	\$971	\$1,028	\$1,080	1.6
Services	\$2,997	\$3,368	\$3,659	\$3,910	\$4,077	\$4,192	\$4,268	1.2
<b>Total</b>	<b>\$4,922</b>	<b>\$5,674</b>	<b>\$6,194</b>	<b>\$6,630</b>	<b>\$6,925</b>	<b>\$7,137</b>	<b>\$7,287</b>	<b>1.3</b>
Other Non-OECD Americas								
Energy-intensive manufacturing	\$449	\$522	\$601	\$662	\$726	\$795	\$867	2.2
Non-energy-intensive manufacturing	\$473	\$581	\$669	\$749	\$837	\$942	\$1,062	2.7
Nonmanufacturing	\$677	\$808	\$914	\$1,004	\$1,097	\$1,196	\$1,299	2.2
Services	\$2,295	\$2,804	\$3,272	\$3,652	\$4,057	\$4,494	\$4,959	2.6
<b>Total</b>	<b>\$3,895</b>	<b>\$4,715</b>	<b>\$5,457</b>	<b>\$6,066</b>	<b>\$6,717</b>	<b>\$7,428</b>	<b>\$8,187</b>	<b>2.5</b>
Total Non-OECD								
Energy-intensive manufacturing	\$24,934	\$31,141	\$36,528	\$41,903	\$47,093	\$52,357	\$57,399	2.8
Non-energy-intensive manufacturing	\$35,074	\$46,133	\$55,021	\$63,986	\$72,262	\$80,323	\$87,526	3.1
Nonmanufacturing	\$27,685	\$33,945	\$39,489	\$44,982	\$50,468	\$56,090	\$61,655	2.7
Services	\$70,300	\$92,951	\$115,370	\$138,970	\$163,126	\$188,498	\$213,468	3.8

<b>Total</b>	<b>\$157,994</b>	<b>\$204,169</b>	<b>\$246,409</b>	<b>\$289,840</b>	<b>\$332,949</b>	<b>\$377,267</b>	<b>\$420,047</b>	<b>3.3</b>
<b>World</b>								
Energy-intensive manufacturing	\$35,323	\$42,900	\$48,980	\$55,072	\$60,940	\$66,957	\$72,797	2.4
Non-energy-intensive manufacturing	\$51,348	\$66,060	\$76,445	\$87,098	\$97,094	\$107,151	\$116,492	2.8
Nonmanufacturing	\$37,043	\$44,754	\$51,112	\$57,457	\$63,762	\$70,256	\$76,699	2.5
Services	\$137,294	\$171,273	\$200,054	\$230,520	\$261,608	\$294,709	\$327,732	2.9
<b>Total</b>	<b>\$261,009</b>	<b>\$324,987</b>	<b>\$376,591</b>	<b>\$430,147</b>	<b>\$483,404</b>	<b>\$539,073</b>	<b>\$593,720</b>	<b>2.8</b>

Sources: Table by the U.S. Energy Information Administration (EIA), based on Oxford Global Industry Model, (March 2021), [www.oxfordeconomics.com](http://www.oxfordeconomics.com) (subscription site); EIA, World Energy Projection System (2021), run r\_210719.163829; and EIA, *Annual Energy Outlook 2021*, (February 2021), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Notes:

\* Totals may not equal sum of components due to independent rounding.

\* *Gross output* is sales or revenue, including final and intermediate goods and services, measured in purchasing power parity (PPP).