

Table A15. Gross output by region and sector, Low Oil Price case

billion 2015 dollars

Region and sector	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
OECD								
United States								
Energy-intensive manufacturing	\$2,575	\$3,002	\$3,251	\$3,541	\$3,816	\$4,099	\$4,401	1.8
Non-energy-intensive manufacturing	\$3,666	\$4,611	\$5,084	\$5,739	\$6,420	\$7,168	\$8,018	2.6
Nonmanufacturing	\$2,456	\$2,944	\$3,234	\$3,575	\$3,924	\$4,299	\$4,724	2.2
Services	\$25,509	\$30,536	\$33,442	\$37,122	\$40,818	\$44,665	\$48,762	2.2
Total	\$34,206	\$41,093	\$45,010	\$49,977	\$54,979	\$60,232	\$65,904	2.2
Canada								
Energy-intensive manufacturing	\$245	\$292	\$315	\$341	\$365	\$391	\$416	1.8
Non-energy-intensive manufacturing	\$311	\$388	\$412	\$440	\$467	\$495	\$525	1.8
Nonmanufacturing	\$458	\$519	\$554	\$591	\$623	\$653	\$683	1.3
Services	\$1,577	\$1,935	\$2,041	\$2,159	\$2,281	\$2,407	\$2,535	1.6
Total	\$2,590	\$3,134	\$3,322	\$3,531	\$3,735	\$3,946	\$4,159	1.6
Mexico and other OECD Americas								
Energy-intensive manufacturing	\$811	\$917	\$988	\$1,063	\$1,134	\$1,205	\$1,278	1.5
Non-energy-intensive manufacturing	\$926	\$1,141	\$1,215	\$1,306	\$1,406	\$1,522	\$1,664	2.0
Nonmanufacturing	\$755	\$867	\$940	\$1,020	\$1,097	\$1,158	\$1,199	1.6
Services	\$2,888	\$3,476	\$3,787	\$4,122	\$4,454	\$4,755	\$5,029	1.9
Total	\$5,380	\$6,401	\$6,930	\$7,512	\$8,091	\$8,639	\$9,171	1.8
OECD Europe								
Energy-intensive manufacturing	\$4,488	\$4,936	\$5,070	\$5,198	\$5,313	\$5,429	\$5,554	0.7
Non-energy-intensive manufacturing	\$7,156	\$8,522	\$8,912	\$9,354	\$9,814	\$10,312	\$10,833	1.4
Nonmanufacturing	\$4,159	\$4,696	\$4,871	\$4,999	\$5,112	\$5,219	\$5,317	0.8
Services	\$27,308	\$30,886	\$32,289	\$33,517	\$34,804	\$36,189	\$37,632	1.1
Total	\$43,111	\$49,041	\$51,142	\$53,068	\$55,043	\$57,149	\$59,337	1.1
Japan								
Energy-intensive manufacturing	\$1,013	\$1,089	\$1,052	\$999	\$946	\$899	\$858	-0.6
Non-energy-intensive manufacturing	\$2,584	\$3,060	\$3,075	\$3,039	\$2,999	\$2,958	\$2,928	0.4
Nonmanufacturing	\$630	\$663	\$639	\$612	\$588	\$564	\$543	-0.5
Services	\$5,566	\$5,864	\$5,877	\$5,768	\$5,658	\$5,553	\$5,476	-0.1
Total	\$9,793	\$10,677	\$10,644	\$10,417	\$10,191	\$9,975	\$9,805	0.0
South Korea								
Energy-intensive manufacturing	\$1,084	\$1,195	\$1,245	\$1,262	\$1,261	\$1,263	\$1,262	0.5
Non-energy-intensive manufacturing	\$1,508	\$1,799	\$1,924	\$1,973	\$1,984	\$2,001	\$2,009	1.0
Nonmanufacturing	\$372	\$417	\$439	\$456	\$465	\$473	\$481	0.9
Services	\$2,345	\$2,596	\$2,736	\$2,775	\$2,773	\$2,775	\$2,764	0.6
Total	\$5,309	\$6,007	\$6,344	\$6,465	\$6,483	\$6,512	\$6,516	0.7
Australia and New Zealand								
Energy-intensive manufacturing	\$175	\$180	\$189	\$197	\$204	\$210	\$214	0.7
Non-energy-intensive manufacturing	\$123	\$131	\$138	\$145	\$151	\$156	\$160	0.9
Nonmanufacturing	\$527	\$619	\$668	\$726	\$771	\$807	\$836	1.6
Services	\$1,801	\$2,041	\$2,272	\$2,488	\$2,685	\$2,873	\$3,060	1.8
Total	\$2,626	\$2,971	\$3,267	\$3,556	\$3,811	\$4,046	\$4,270	1.6
Total OECD								
Energy-intensive manufacturing	\$10,390	\$11,613	\$12,110	\$12,600	\$13,041	\$13,496	\$13,984	1.0
Non-energy-intensive manufacturing	\$16,274	\$19,652	\$20,759	\$21,995	\$23,241	\$24,612	\$26,138	1.6
Nonmanufacturing	\$9,358	\$10,725	\$11,346	\$11,979	\$12,579	\$13,173	\$13,783	1.3
Services	\$66,994	\$77,334	\$82,443	\$87,951	\$93,470	\$99,218	\$105,259	1.5
Total	\$103,015	\$119,324	\$126,658	\$134,526	\$142,332	\$150,498	\$159,163	1.5
Non-OECD								
Russia								

Energy-intensive manufacturing	\$721	\$804	\$826	\$847	\$856	\$853	\$839	0.5
Non-energy-intensive manufacturing	\$578	\$669	\$670	\$686	\$696	\$699	\$702	0.7
Nonmanufacturing	\$1,192	\$1,317	\$1,313	\$1,306	\$1,278	\$1,239	\$1,202	0.0
Services	\$3,553	\$3,885	\$3,673	\$3,542	\$3,309	\$3,024	\$2,737	-0.9
Total	\$6,044	\$6,675	\$6,482	\$6,380	\$6,139	\$5,814	\$5,480	-0.3
Other Europe and Eurasia								
Energy-intensive manufacturing	\$584	\$641	\$669	\$716	\$762	\$801	\$837	1.2
Non-energy-intensive manufacturing	\$460	\$530	\$552	\$583	\$614	\$642	\$666	1.2
Nonmanufacturing	\$996	\$1,089	\$1,150	\$1,205	\$1,246	\$1,272	\$1,301	0.9
Services	\$2,672	\$3,128	\$3,330	\$3,545	\$3,705	\$3,815	\$3,891	1.3
Total	\$4,712	\$5,389	\$5,700	\$6,049	\$6,326	\$6,530	\$6,695	1.2
China								
Energy-intensive manufacturing	\$13,218	\$15,412	\$16,310	\$16,673	\$16,643	\$16,431	\$15,979	0.6
Non-energy-intensive manufacturing	\$23,190	\$28,830	\$32,148	\$34,857	\$36,493	\$37,506	\$37,487	1.6
Nonmanufacturing	\$10,745	\$12,563	\$13,574	\$14,249	\$14,608	\$14,782	\$14,905	1.1
Services	\$29,694	\$39,805	\$48,440	\$56,657	\$64,183	\$71,482	\$77,481	3.2
Total	\$76,846	\$96,610	\$110,471	\$122,437	\$131,928	\$140,201	\$145,853	2.2
India								
Energy-intensive manufacturing	\$3,311	\$4,553	\$6,136	\$7,724	\$9,178	\$10,549	\$11,703	4.3
Non-energy-intensive manufacturing	\$2,526	\$3,836	\$5,251	\$6,668	\$8,072	\$9,482	\$10,832	5.0
Nonmanufacturing	\$3,750	\$5,157	\$6,509	\$7,795	\$9,024	\$10,170	\$11,025	3.7
Services	\$6,692	\$9,403	\$12,888	\$16,443	\$19,890	\$23,356	\$26,703	4.7
Total	\$16,278	\$22,948	\$30,785	\$38,631	\$46,164	\$53,557	\$60,263	4.5
Other Asia								
Energy-intensive manufacturing	\$3,226	\$3,890	\$4,483	\$5,161	\$5,861	\$6,569	\$7,264	2.7
Non-energy-intensive manufacturing	\$6,062	\$7,428	\$8,456	\$9,398	\$10,269	\$11,019	\$11,643	2.2
Nonmanufacturing	\$4,109	\$4,991	\$5,885	\$6,788	\$7,736	\$8,677	\$9,565	2.9
Services	\$11,758	\$14,388	\$16,901	\$19,243	\$21,521	\$23,707	\$25,659	2.6
Total	\$25,156	\$30,698	\$35,725	\$40,590	\$45,387	\$49,972	\$54,132	2.6
Middle East								
Energy-intensive manufacturing	\$1,392	\$1,633	\$1,767	\$1,869	\$1,933	\$1,951	\$1,941	1.1
Non-energy-intensive manufacturing	\$383	\$475	\$525	\$556	\$579	\$595	\$609	1.6
Nonmanufacturing	\$2,435	\$2,733	\$2,921	\$3,093	\$3,267	\$3,450	\$3,638	1.3
Services	\$4,545	\$5,241	\$5,757	\$6,194	\$6,554	\$6,908	\$7,228	1.6
Total	\$8,755	\$10,082	\$10,970	\$11,712	\$12,332	\$12,903	\$13,417	1.4
Africa								
Energy-intensive manufacturing	\$1,256	\$1,419	\$1,615	\$1,829	\$2,053	\$2,281	\$2,511	2.3
Non-energy-intensive manufacturing	\$921	\$1,087	\$1,228	\$1,380	\$1,531	\$1,678	\$1,820	2.3
Nonmanufacturing	\$3,114	\$3,507	\$3,988	\$4,473	\$4,972	\$5,484	\$6,012	2.2
Services	\$6,095	\$6,904	\$7,709	\$8,484	\$9,266	\$9,990	\$10,684	1.9
Total	\$11,386	\$12,917	\$14,540	\$16,166	\$17,823	\$19,433	\$21,028	2.1
Brazil								
Energy-intensive manufacturing	\$777	\$862	\$907	\$920	\$922	\$923	\$923	0.6
Non-energy-intensive manufacturing	\$481	\$603	\$634	\$645	\$651	\$660	\$670	1.1
Nonmanufacturing	\$668	\$748	\$775	\$789	\$816	\$865	\$929	1.1
Services	\$2,997	\$3,205	\$3,297	\$3,331	\$3,320	\$3,292	\$3,253	0.3
Total	\$4,922	\$5,418	\$5,612	\$5,685	\$5,709	\$5,740	\$5,776	0.5
Other Non-OECD Americas								
Energy-intensive manufacturing	\$449	\$509	\$572	\$619	\$670	\$727	\$786	1.9
Non-energy-intensive manufacturing	\$473	\$559	\$624	\$683	\$753	\$837	\$938	2.3
Nonmanufacturing	\$677	\$792	\$877	\$945	\$1,014	\$1,087	\$1,161	1.8
Services	\$2,295	\$2,656	\$2,945	\$3,130	\$3,320	\$3,519	\$3,718	1.6
Total	\$3,895	\$4,516	\$5,018	\$5,377	\$5,758	\$6,169	\$6,603	1.8
Total Non-OECD								
Energy-intensive manufacturing	\$24,934	\$29,723	\$33,285	\$36,358	\$38,878	\$41,085	\$42,784	1.8
Non-energy-intensive manufacturing	\$35,074	\$44,017	\$50,087	\$55,456	\$59,657	\$63,117	\$65,368	2.1
Nonmanufacturing	\$27,685	\$32,898	\$36,991	\$40,643	\$43,962	\$47,026	\$49,738	2.0
Services	\$70,300	\$88,616	\$104,941	\$120,569	\$135,068	\$149,093	\$161,353	2.8

Total	\$157,994	\$195,254	\$225,304	\$253,026	\$277,566	\$300,320	\$319,244	2.4
World								
Energy-intensive manufacturing	\$35,323	\$41,335	\$45,394	\$48,958	\$51,919	\$54,580	\$56,768	1.6
Non-energy-intensive manufacturing	\$51,348	\$63,669	\$70,846	\$77,451	\$82,899	\$87,729	\$91,506	1.9
Nonmanufacturing	\$37,043	\$43,623	\$48,338	\$52,623	\$56,542	\$60,199	\$63,521	1.8
Services	\$137,294	\$165,950	\$187,384	\$208,520	\$228,538	\$248,310	\$266,612	2.2
Total	\$261,009	\$314,578	\$351,962	\$387,552	\$419,898	\$450,818	\$478,407	2.0

Sources: Table by the U.S. Energy Information Administration (EIA), based on Oxford Global Industry Model, (March 2021), www.oxfordeconomics.com (subscription site); EIA, World Energy Projection System (2021), run lp_210720.081941; and EIA, *Annual Energy Outlook 2021*, (February 2021), 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).