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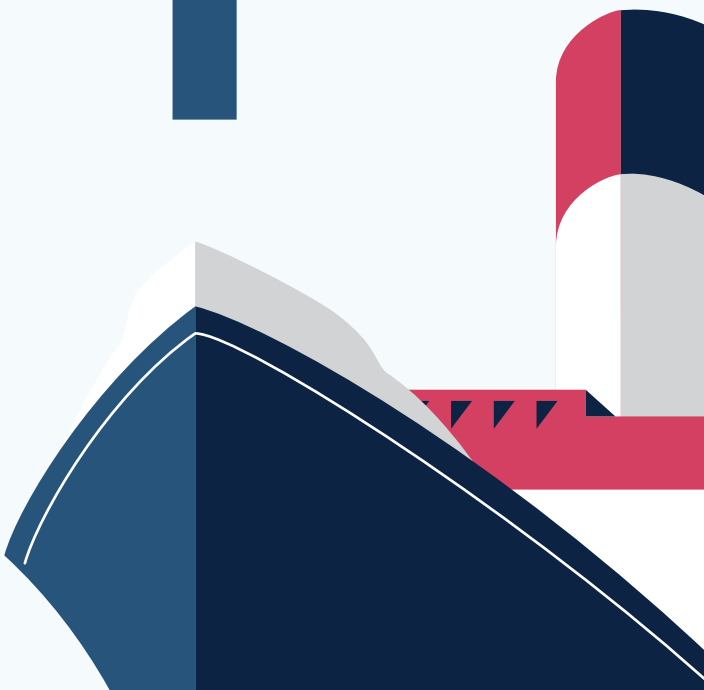


DEVELOPMENTS IN INTERNATIONAL SEABORNE TRADE

In 2016, the maritime transport sector continued to face the prolonged effects of the economic downturn of 2009. Seaborne trade remained under pressure owing to continued weak global demand and heightened uncertainty stemming from factors such as trade policy and low commodity and oil prices. Moreover, several trends with relevant implications for maritime transport continued to gradually unfold and raise attention, in particular digitalization, the rapid expansion of electronic commerce (e-commerce) and growing concentration in the liner shipping market.

Reflecting the state of the world economy, demand for shipping services increased moderately in 2016. World seaborne trade volumes expanded by 2.6 per cent, up from 1.8 per cent in 2015, which was below the historical average of 3 per cent recorded over the past four decades. Total volumes reached 10.3 billion tons, reflecting the addition of over 260 million tons of cargo, about half of which was attributed to tanker trade.

In 2017, the outlook for the world economy and merchandise trade is expected to improve somewhat. However, uncertainty and other factors, both positive and negative, continue to shape this outlook. In this context, UNCTAD estimates that seaborne trade will increase by 2.8 per cent, with total volumes reaching 10.6 billion tons. Its projections for the medium-term point to continued expansion, with volumes growing at an estimated compound annual growth rate of 3.2 per cent between 2017 and 2022. Volumes are set to expand across all segments, with containerized trade and major dry bulk commodities trade recording the fastest growth.

WORLD SEABORNE TRADE

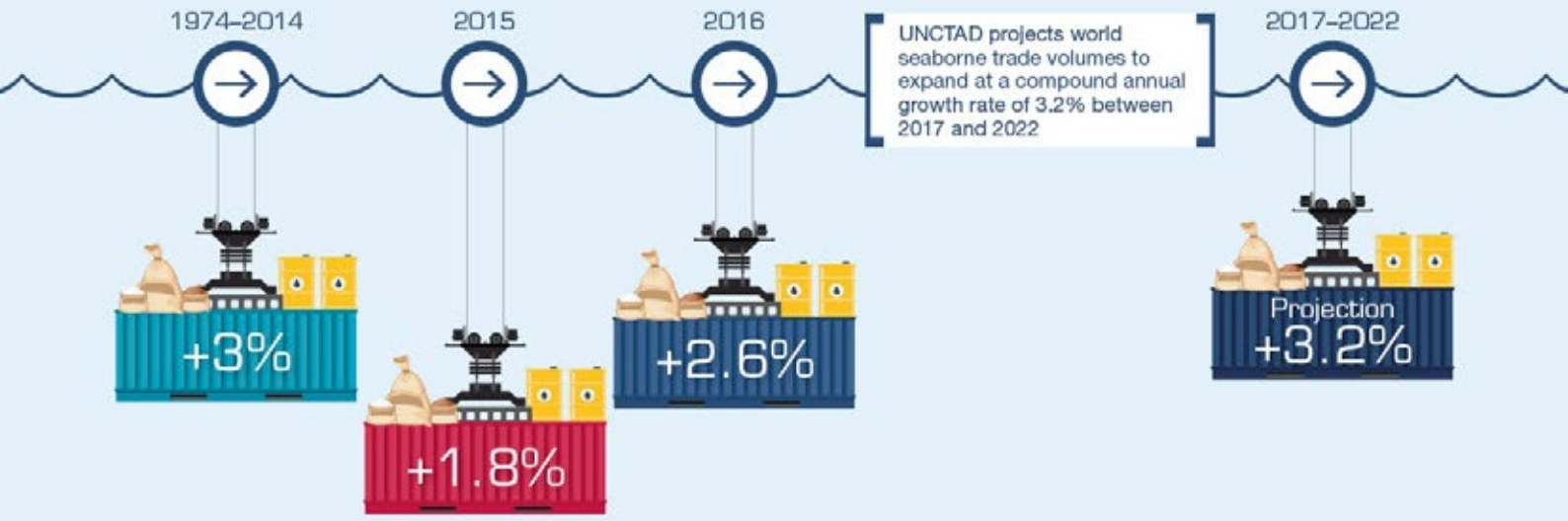
(Percentage share in world tonnage)

10.3 billion tons
Total volumes reached
reflecting the addition of over 260 million tons of cargo

+2.6% in 2016
up from 1.8% in 2015

	Developed economies	Developing economies	Transition economies
Loaded (outbound/exports)	35%	59%	6%
Unloaded (inbound/imports)	35%	64%	1%

EVOLUTION OF WORLD SEABORNE TRADE VOLUMES



A. WORLD ECONOMIC SITUATION

1. World economic growth

World seaborne trade continues to be largely determined by developments in the world economy and trade. Although the relationship between economic output and merchandise trade seems to be shifting, with an observed decline in the growth ratio of trade to gross domestic product (GDP) over recent years,[1] demand for maritime transport services remains heavily dependent on the performance of the world economy.

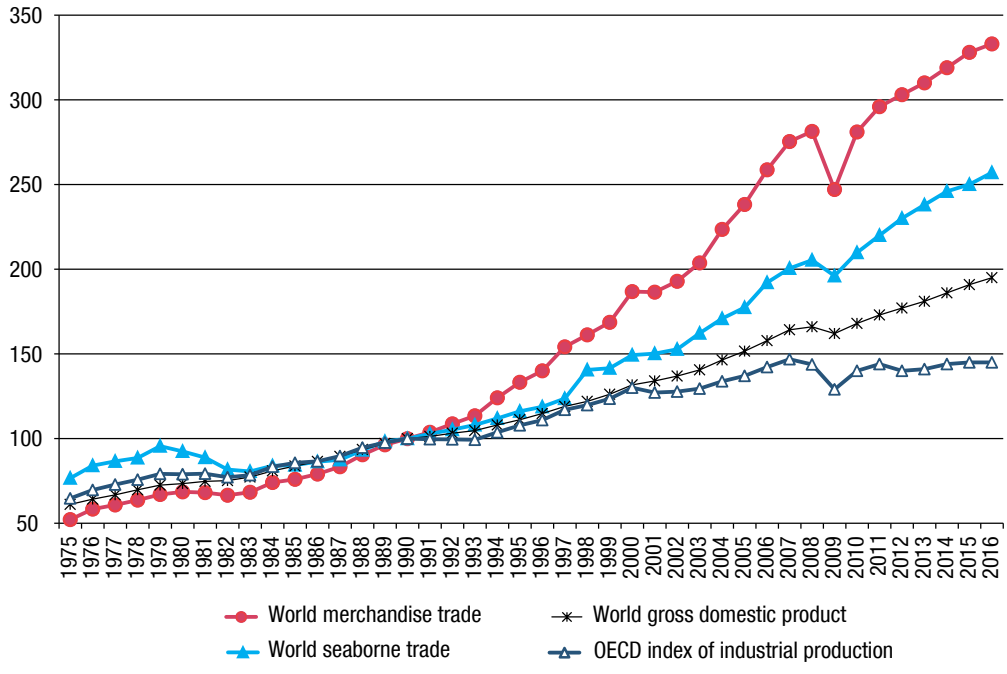
While industrial activity, economic output, merchandise trade and seaborne trade shipments may be growing at different speeds, these variables remain, nevertheless, positively correlated, as shown in figure 1.1 on factors relating to the index of industrial production of the Organization for Economic Cooperation and Development (OECD) and world indices.

World economic growth decelerated in 2016 with GDP expanding by 2.2 per cent, down from 2.6 per cent in 2015 and below the 2001–2008 average annual growth rate of 3.2 per cent (table 1.1). Explanatory factors include a weak global investment environment, limited growth in world merchandise trade, increased trade policy uncertainty and the continued negative impact of low commodity price levels both on investment and the export earnings of commodity-exporting countries.

Economic output in developed economies also dropped from 2.2 per cent in 2015 to 1.7 per cent in 2016, reflecting slower growth in the European Union (1.9 per cent), the United States (1.6 per cent) and Japan (1.0 per cent). In the developing economies, GDP growth fell to 3.6 per cent, down from 3.8 per cent in 2015. Despite a firm GDP growth of 6.7 per cent – supported by government stimulus measures introduced during the year – China continued its gradual transition towards a consumption-driven economy powered by its own internal growth. In India, strong GDP growth (7 per cent) continued but at a slightly slower pace than in 2015.

Limited activity in oil-exporting countries of Africa, Latin America and the Caribbean, Western Asia and the transition economies, together with the recession in Brazil and the Russian Federation, continued to hold back growth in the developing economies, as well as in the transition economies. In the least developed countries, GDP growth expanded by 3.7 per cent in 2016, a rate well below the growth target of at least 7 per cent set under the Sustainable Development Goals, in particular Goal 8 to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Figure 1.1. Organization for Economic Cooperation and Development index of industrial production and world indices: Gross domestic product, merchandise trade and seaborne shipments, 1975–2016 (1990 = 100)



Sources: UNCTAD secretariat calculations, based on data from OECD, 2017; United Nations, 2017; *UNCTAD Review of Maritime Transport*, various issues; World Trade Organization, 2012.
Note: Index calculations are based on GDP and merchandise trade in dollars, and seaborne trade in metric tons.

Table 1.1. World economic growth, 2015–2017 (Annual percentage change)

Region or economic grouping	2001–2008	2015	2016	2017
World	3.2	2.6	2.2	2.6
Developed economies	**2.2**	**2.2**	**1.7**	**1.9**
of which:				
United States	2.5	2.6	1.6	2.1
European Union 28	2.2	2.3	1.9	1.9
Japan	1.2	1.2	1.0	1.2
Developing economies	**6.2**	**3.8**	**3.6**	**4.2**
of which:				
Africa	5.7	3.0	1.5	2.7
Asia	7.3	5.2	5.1	5.2
China	10.9	6.9	6.7	6.7
India	7.6	7.2	7.0	6.7
Western Asia	5.8	3.7	2.2	2.7
Latin American and the Caribbean	**3.9**	**-0.3**	**-0.8**	**1.2**
Brazil	3.7	-3.8	-3.6	0.1
Least developed countries	**7.2**	**3.6**	**3.7**	**4.4**
Transition economies	**7.1**	**-2.2**	**0.4**	**1.8**
Russian Federation	6.8	–2.8	–0.2	1.5

Source: UNCTAD, 2017a.
Note: Data for 2017 are projected figures.

2. World merchandise trade

World merchandise trade underperformed in 2016 with volumes (that is, trade in value terms but adjusted to account for inflation and exchange rate movements), expanding by a modest 1.9 per cent (average growth rate of imports and exports), up from 1.7 per cent in 2015 (table 1.2). Weaker trade is both a cause and an effect of a slowdown in global economic activity in view of the strong linkages between investment, growth and trade. World export volumes and import demand both accelerated in 2016, compared with 2015. Exports expanded at the faster rate of 1.7 per cent up from 1.4 per cent in 2015, while the import demand increased by 2.1 per cent, up from 1.9 per cent in 2015.

Weakness in trade flows affected developed and developing economies alike; yet, some differences in regional performance were observed. Developed economies' exports increased at a slower rate (1 per cent) in 2016, compared with 2015 (2.1 per cent). Their import demand decelerated to 2.7 per cent, down from 3.3 per cent in 2015.

Trade growth in developing regions underperformed in 2016. While exports increased by 2.8 per cent, up from 0.6 per cent in 2015, this rate remains below the 4.4 per cent growth recorded in 2013. Reflecting in particular the reduced purchasing power of many commodity-exporting countries that faced an erosion of terms of trade because of lower commodity prices (for example, Africa, and Latin America and the Caribbean)

Table 1.2. Growth in volume of merchandise trade, 2013–2016 (Annual percentage change)

Exports				Economies or regions	Imports			
2013	2014	2015	2016		2013	2014	2015	2016
3.1	2.0	1.4	1.7	**World**	**2.3**	**2.5**	**1.9**	**2.1**
2.1	1.7	2.1	1.0	**Developed economies**	**0.0**	**2.8**	**3.3**	**2.7**
2.6	3.3	–1.1	–0.2	United States	**0.8**	**4.7**	**3.7**	**3.6**
1.9	1.6	3.3	1.1	European Union	**–1.0**	**3.2**	**4.1**	**2.8**
–1.5	0.6	–1.0	0.3	Japan	**0.3**	**0.6**	**–2.8**	**–0.3**
4.4	**2.5**	**0.6**	**2.8**	**Developing economies**	5.5	2.7	1.1	1.1
2.4	2.3	3.2	2.3	Latin America and the Caribbean	**3.8**	**0.0**	**–2.0**	**–4.2**
–1.6	–2.0	0.6	2.9	Africa	**6.8**	**3.6**	**0.7**	**–4.6**
6.7	4.9	–0.6	0.6	Eastern Asia	**7.0**	**3.4**	**–1.1**	**2.2**
8.5	5.6	–0.9	0.0	China	**9.1**	**2.9**	**–1.8**	**3.1**
0.0	1.1	–1.4	18.1	Southern Asia	**–0.4**	**4.7**	**7.4**	**8.9**
8.5	3.5	–2.1	6.7	India	**–0.3**	**3.2**	**10.1**	**7.3**
5.0	3.7	3.7	3.9	South-East Asia	**4.2**	**2.4**	**5.7**	**4.4**
3.7	–3.2	–0.6	3.5	Western Asia	**6.7**	**2.2**	**3.1**	**–2.4**
2.0	**0.5**	**1.0**	**–1.6**	**Transition economies**	–0.4	–7.9	–19.9	7.3

Source: UNCTAD, 2017a.
Note: Trade volumes are derived from international merchandise trade values deflated by UNCTAD unit value indices.

the import demand of developing economies expanded at the modest rate of 1.1 per cent in 2016. Much of the contraction in the import demand of Latin America and the Caribbean was also driven by the recession in Brazil.

In 2016, export volumes in the transition economies declined, reflecting in particular the negative impact of the recession in the Russian Federation. In contrast, the import demand of these economies recovered from the deep contraction recorded in 2015 due to the erosion of their terms of trade resulting from lower commodity and oil prices. The relative improvement in oil price levels in 2016 and the ability of transition economies to absorb the shock affecting their terms of trade helped support their demand for imports.

Overall merchandise trade growth was also weak in relation to world GDP growth, a trend that has increased since 2008. In addition to cyclical factors such as the weakness in global demand and the slowdown in economic activity, the apparent shift in the traditional relationship between GDP and trade also reflects structural factors such as the slowdown in the pace of globalization and supply chain fragmentation (UNCTAD, 2016; Bems et al, 2013). For example, the share of Chinese imports of parts and components in merchandise exports decreased from 60 per cent in 2000 to less than 35 per cent in recent years (United Nations, 2017). These developments may have contributed to reducing trade–GDP elasticity. The latter was estimated at 1.3 in 1970–1985, 2.2 in 1986–2000, 1.3 in the 2000s and 0.7 in 2008–2013.[2]

A shift in the composition of global demand seems to have also contributed to moderating the GDP and trade link. Investment – the most trade-intensive component of global demand – has weakened in recent years. Also, slower progress in trade liberalization under the World Trade Organization, uncertainty about the future of regional trade agreements, notably the Trans-Pacific Partnership Agreement, and growing protectionist trends, including as measured by the proliferation of trade restrictions, constitute additional constraining factors. In addition to the uncertainty arising from the trade policy stance of the new Administration in the United States, the rise in the overall stock of trade-restrictive measures since the 2008/2009 downturn is also a concern. Of the 1,671 trade-restrictive measures recorded in Group of 20 economies since 2008, only 408 had been removed by mid-October 2016. Today, the total number of restrictive measures still in place is estimated to exceed 1,250 (World Trade Organization, OECD and UNCTAD, 2016).

B. WORLD SEABORNE TRADE

1. Overview

In line with developments in the world economy, demand for shipping services improved in 2016, albeit only moderately. World seaborne trade expanded by 2.6 per cent, up from 1.8 per cent in 2015, which is below the historical average of 3 per cent recorded over the past four decades. Total volumes reached 10.3 billion tons, reflecting the addition of over 260 million tons of cargo, about half of which was attributed to tanker trade (tables 1.3 and 1.4; figure 1.2). Strong import demand in China in 2016 continued to support world maritime seaborne trade, although overall growth was offset by limited expansion in the import demand of other developing regions.

Table 1.3. Growth in international seaborne trade, selected years (Millions of tons loaded)

Year	Oil and gas	Main bulks[a]	Dry cargo other than main bulks	Total (all cargoes)
1970	1 440	448	717	2 605
1980	1 871	608	1 225	3 704
1990	1 755	988	1 265	4 008
2000	2 163	1 295	2 526	5 984
2005	2 422	1 709	2 978	7 109
2006	2 698	1 814	3 188	7 700
2007	2 747	1 953	3 334	8 034
2008	2 742	2 065	3 422	8 229
2009	2 642	2 085	3 131	7 858
2010	2 772	2 335	3 302	8 409
2011	2 794	2 486	3 505	8 785
2012	2 841	2 742	3 614	9 197
2013	2 829	2 923	3 762	9 514
2014	2 825	2 985	4 033	9 843
2015	2 932	3 121	3 971	10 023
2016	3 055	3 172	4 059	10 287

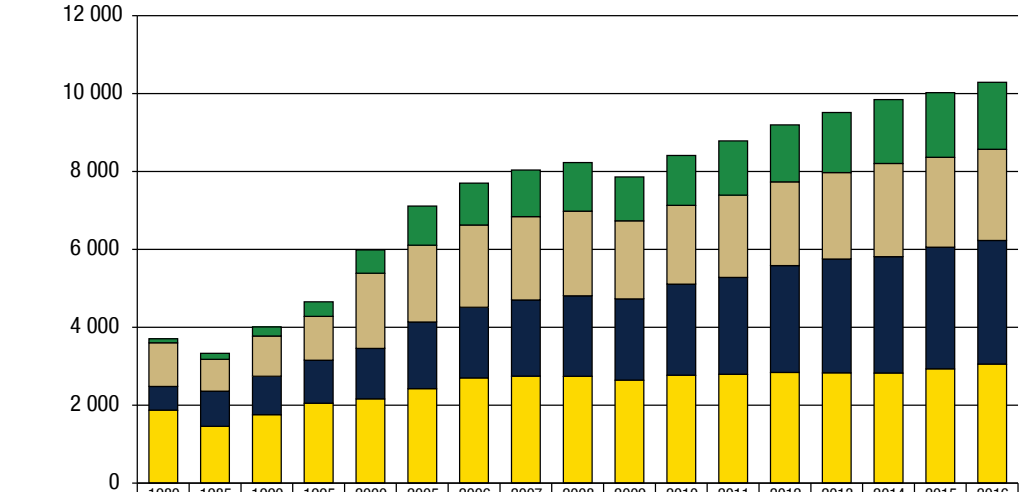
Source: Compiled by the UNCTAD secretariat, based on data supplied by reporting countries and as published on government and port industry websites, and by specialist sources. Data for 2006 onwards have been revised and updated to reflect improved reporting, including more recent figures and better information regarding the breakdown by cargo type. Figures for 2016 are estimates, based on preliminary data or on the last year for which data were available.

[a] Iron ore, grain, coal, bauxite, alumina and phosphate rock.

Seaborne dry cargo shipments totalled 7.23 billion tons in 2016, reflecting an increase of 2 per cent over the previous year (table 1.4). As shown in figure 1.2 and table 1.3, the share of the major bulk commodities (coal, iron ore, grain and bauxite/alumina/phosphate rock) amounted to about 43.9 per cent of total dry cargo volumes, followed by containerized trade (23.8 per cent) and minor bulks (23.7 per cent). Remaining volumes were accounted for by "other" dry cargo,[3] namely breakbulk shipments.

In 2016, the major bulk commodities increased by 1.6 per cent, while other dry cargo expanded by 2.2 per cent.

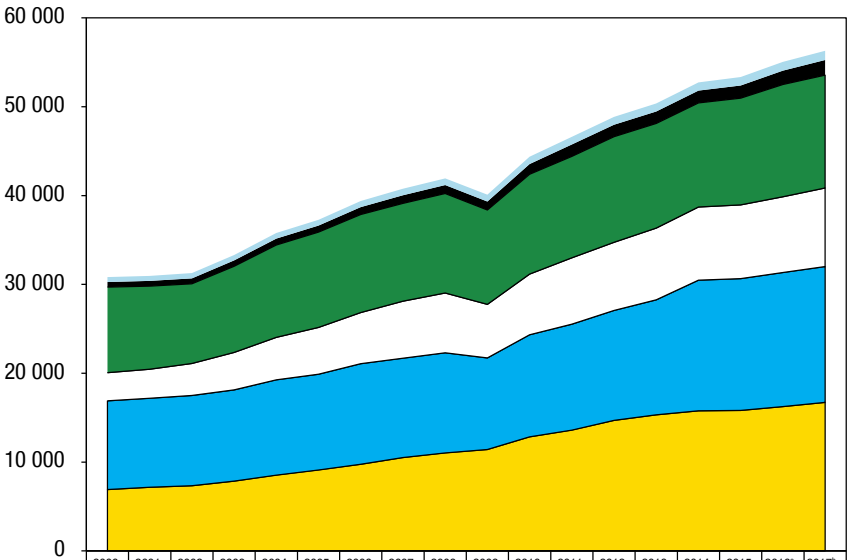
Figure 1.2. International seaborne trade, selected years (Millions of tons loaded)



	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Container	102	152	234	371	598	1 001	1 076	1 193	1 249	1 127	1 280	1 393	1 464	1 544	1 640	1 661	1 720
Other dry cargo	1 123	819	1 031	1 125	1 928	1 975	2 112	2 141	2 173	2 004	2 022	2 112	2 150	2 218	2 393	2 310	2 339
Five major bulks	608	900	988	1 105	1 295	1 711	1 814	1 953	2 065	2 085	2 335	2 486	2 742	2 923	2 985	3 121	3 172
Oil and gas	1 871	1 459	1 755	2 050	2 163	2 422	2 698	2 747	2 742	2 642	2 772	2 794	2 841	2 829	2 825	2 932	3 055

Sources: Review of Maritime Transport, various issues. For 2006–2016, the breakdown by cargo type is based on data from Clarksons Research, Shipping Review and Outlook and Seaborne Trade Monitor, various issues.

Figure 1.3. World seaborne trade in cargo ton-miles by type of cargo, 2000–2017 (Billions of ton-miles)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016[a]	2017[b]
Chemicals	552	562	593	606	625	651	689	724	736	765	824	864	889	908	914	953	991	1 039
Gas	576	591	611	662	719	736	833	913	956	958	1 147	1 344	1 346	1 347	1 392	1 422	1 563	1 706
Oil	9 631	9 352	8 971	9 698	10 393	10 729	11 036	11 011	11 200	10 621	11 237	11 417	11 890	11 779	11 717	12 013	12 638	12 701
Container	3 170	3 271	3 601	4 216	4 785	5 269	5 757	6 422	6 734	6 030	6 833	7 469	7 673	8 076	8 237	8 302	8 529	8 845
Other (minor bulks and other dry cargo)	9 998	10 023	10 167	10 275	10 729	10 782	11 330	11 186	11 272	10 325	11 504	11 927	12 375	12 952	14 707	14 836	15 097	15 298
Five main dry bulks	6 896	7 158	7 331	7 852	8 527	9 107	9 745	10 503	11 028	11 400	12 824	13 596	14 691	15 312	15 768	15 813	16 239	16 710

Source: UNCTAD secretariat calculations, based on data from Clarksons Research, 2017a.
[a] Estimated.
[b] Projected figures.

Table 1.4. World seaborne trade by economic grouping, region and type of cargo, 2015 and 2016 (Tonnage and percentage share)

Economic grouping	Year	Goods loaded				Goods unloaded			
		Total	Crude	Petroleum products and gas	Dry cargo	Total	Crude	Petroleum products and gas	Dry cargo
		Millions of tons							
World	2015	10 023.5	1 761.0	1 170.9	7 091.6	10 016.4	1 910.2	1 187.2	6 919.0
	2016	10 286.9	1 837.6	1 217.9	7 231.4	10 281.6	1 990.0	1 233.3	7 058.3
Developed economies	2015	3 417.4	129.6	467.2	2 820.6	3 733.7	994.3	530.9	2 208.5
	2016	3 594.7	143.5	505.0	2 946.3	3 633.0	990.8	533.5	2 108.7
Transition economies	2015	632.3	164.4	43.1	424.7	58.6	0.3	4.3	54.0
	2016	646.5	176.3	48.2	421.9	61.5	0.3	4.5	56.7
Developing economies	2015	5 973.8	1 466.9	660.6	3 846.3	6 224.0	915.6	651.9	4 656.5
	2016	6 045.7	1 517.7	664.7	3 863.2	6 587.1	998.9	695.4	4 892.8
Africa	2015	755.1	293.7	58.6	402.8	485.6	39.4	72.1	374.2
	2016	745.3	290.1	50.2	405.0	506.2	40.1	78.7	387.4
America	2015	1 327.6	223.5	83.8	1 020.3	589.6	65.8	102.1	421.7
	2016	1 369.0	270.7	69.7	1 028.6	594.3	58.2	123.1	413.1
Asia	2015	3 882.9	948.0	517.3	2 417.7	5 136.3	809.6	473.6	3 853.1
	2016	3 923.0	955.1	543.9	2 424.0	5 473.9	899.7	489.4	4 084.8
Oceania	2015	8.2	1.7	0.9	5.5	12.5	0.9	4.1	7.5
	2016	8.4	1.8	1.0	5.6	12.7	0.9	4.3	7.5

Economic grouping	Year	Goods loaded				Goods unloaded			
		Total	Crude	Petroleum products and gas	Dry cargo	Total	Crude	Petroleum products and gas	Dry cargo
		Percentage share							
World	2015	100.0	17.6	11.7	70.7	100.0	19.1	11.9	69.1
	2016	100.0	17.9	11.8	70.3	100.0	19.4	12.0	68.6
Developed economies	2014	34.1	7.4	39.9	39.8	37.3	52.1	44.7	31.9
	2015	34.9	7.8	41.5	40.7	35.3	49.8	43.3	29.9
Transition economies	2015	6.3	9.3	3.7	6.0	0.6	0.0	0.4	0.8
	2016	6.3	9.6	4.0	5.8	0.6	0.0	0.4	0.8
Developing economies	2015	59.6	83.3	56.4	54.2	62.1	47.9	54.9	67.3
	2016	58.8	82.6	54.6	53.4	64.1	50.2	56.4	69.3
Africa	2015	7.5	16.7	5.0	5.7	4.8	2.1	6.1	5.4
	2016	7.2	15.8	4.1	5.6	4.9	2.0	6.4	5.5
America	2015	13.2	12.7	7.2	14.4	5.9	3.4	8.6	6.1
	2016	13.3	14.7	5.7	14.2	5.8	2.9	10.0	5.9
Asia	2015	38.7	53.8	44.2	34.1	51.3	42.4	39.9	55.7
	2016	38.1	52.0	44.7	33.5	53.2	45.2	39.7	57.9
Oceania	2015	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.1
	2016	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.1

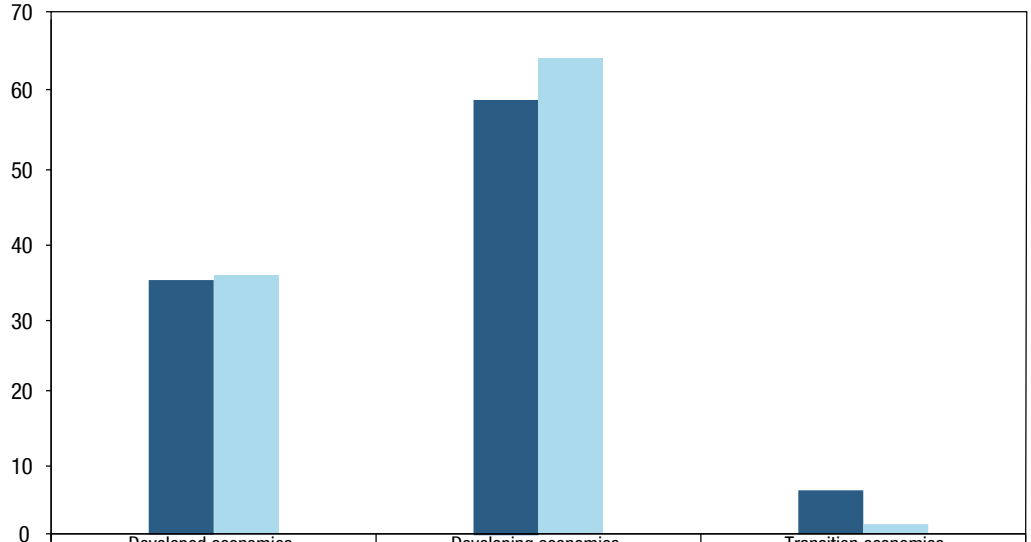
Sources: Compiled by the UNCTAD secretariat, based on data supplied by reporting countries and data obtained from government, port industry and other specialist websites and sources. Data for 2006 onwards have been revised and updated to reflect improved reporting, including more recent figures and better information regarding the breakdown by cargo type. Figures for 2016 are estimates based on preliminary data or on the last year for which data were available.

Note: For longer time series and data prior to 2015, see UNCTAD, 2017b.

In 2016, distance-adjusted seaborne trade continued to grow but at a slightly faster pace than seaborne trade in tons. Global shipping ton-miles reached 55,057 estimated billions, up by 3.2 per cent over the previous year, when ton–miles increased by 1.1 per cent (figure 1.3).

Despite the particularly weak import demand and limited exports in many economies, developing economies as a group continued, nevertheless, to account for most of world seaborne cargo shipments in 2016. As shown in figure 1.4 (a), developing economies accounted for 59 per cent of world goods loaded (outbound/exports)

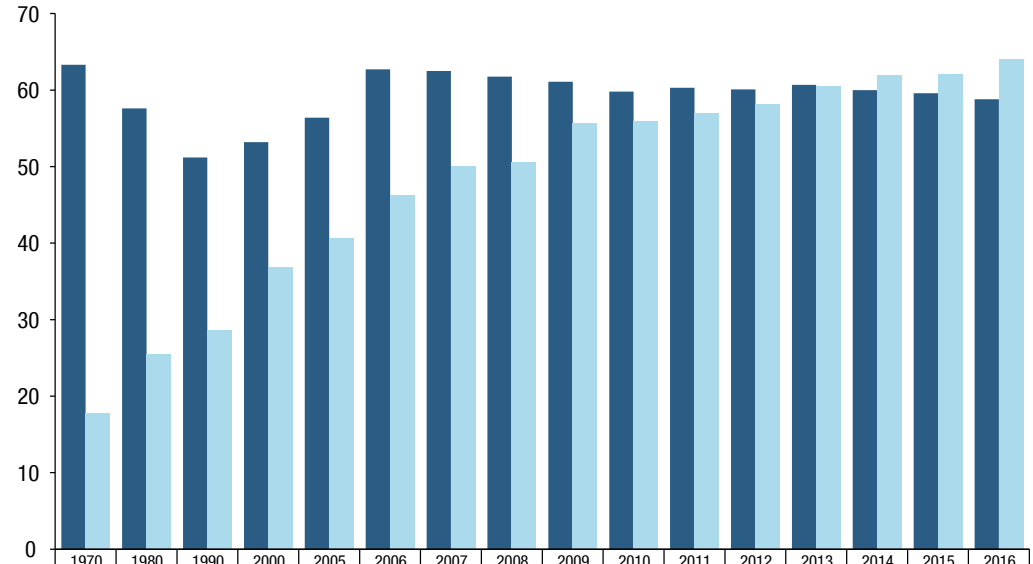
Figure 1.4 (a). World seaborne trade, by type of economy, 2016 (Percentage share in world tonnage)



	Developed economies	Developing economies	Transition economies
Loaded	35	59	6
Unloaded	35	64	1

Sources: Compiled by the UNCTAD secretariat, based on data supplied by reporting countries and as published on government and port industry websites, and by specialist sources.
Note: Estimates are based on preliminary data or on the last year for which data were available.

Figure 1.4 (b). Participation of developing economies in world seaborne trade, selected years (Percentage share in world tonnage)



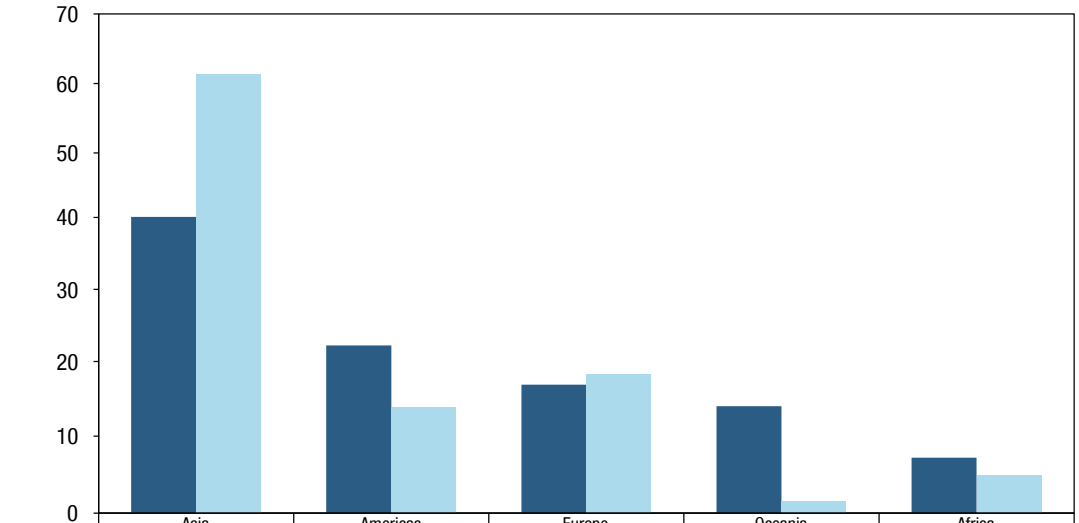
	1970	1980	1990	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Loaded	63	58	51	53	56	63	62	62	61	60	60	60	61	60	60	59
Unloaded	18	26	29	37	41	46	50	51	56	56	57	58	60	62	62	64

Source: Review of Maritime Transport, various issues.

and nearly two thirds of goods unloaded (inbound/imports), respectively.

Figure 1.4 (b) highlights the contribution of developing economies in terms of goods loaded and unloaded globally. Since the 1970s, participation of developing economies in world seaborne trade has shifted, reflecting their rise as major importers and exporters. For over four decades, developing economies' share of goods unloaded has increased significantly, while their share of goods loaded has also increased, albeit at a slower rate, before stabilizing at about 60 per cent since 2010.

Figure 1.4 (c). World seaborne trade, by region, 2016 (Percentage share in world tonnage)



	Asia	Americas	Europe	Oceania	Africa
Loaded	40	22	17	14	7
Unloaded	61	14	18	2	5

Sources: Compiled by the UNCTAD secretariat, based on data supplied by reporting countries and as published on the relevant government and port industry websites, and by specialist sources. Estimates are based on preliminary data or on the last year for which data were available.

Developing economies are no longer only a source of supply for raw materials and fossil fuel energy, but are also key players in globalized manufacturing processes and a growing source of consumption import demand, including of raw materials, such as oil (figure 1.4 (b)). In terms of geographical influence, Asia remained the main global cargo loading and unloading area in 2016 (figure 1.4 (c)).

2. Seaborne trade by cargo type

Tanker trade

In 2016, world seaborne tanker trade – crude oil, refined petroleum products and gas – continued to grow amid a surplus in oil market supply and low oil prices. Total volumes reached 3.1 billion tons, reflecting an increase of 4.2 per cent over the previous year. Oil imports for inventory building continued unabated for crude oil and refined oil products, and resulted in record high storage levels. These positive trends were underpinned by strong demand for crude oil imports in China, India and the United States and a high level of exported petroleum products from China and India. An overview of global players in oil and gas production, consumption and volumes shipped in 2016, is presented in tables 1.5 and 1.6.

Table 1.5. Major producers and consumers of oil and natural gas, 2016 (World market share in percentage)

World oil production		World oil consumption	
Western Asia	35	Asia Pacific	35
North America	18	North America	23
Transition economies	15	Europe	14
Developing America	11	Western Asia	11
Africa	9	Developing America	9
Asia Pacific	9	Transition economies	4
Europe	4	Africa	4
Oil refinery capacities		**Oil refinery throughput**	
Asia Pacific	34	Asia Pacific	34
North America	21	North America	22
Europe	15	Europe	15
Western Asia	10	Western Asia	11
Transition economies	9	Transition economies	9
Developing America	7	Developing America	7
Africa	4	Africa	2
World natural gas production		**World natural gas consumption**	
North America	26	North America	25
Transition economies	22	Asia Pacific	20
Western Asia	18	Transition economies	16
Asia Pacific	16	Western Asia	15
Europe	6	Europe	12
Developing America	6	Developing America	8
Africa	6	Africa	4

Source: UNCTAD secretariat calculations, based on data from British Petroleum, 2017.

Notes: Totals may not add up to 100 per cent due to rounding. Oil includes crude oil, shale oil, oil sands and natural gas liquids. The term excludes liquid fuels from other sources such as biomass and coal derivatives.

Supported by firm import demand in China, India and the United States and for the second consecutive year, crude oil shipments expanded by 4.3 per cent in 2016, reaching an estimated total volume of 1.8 billion tons. Imports into North America increased, reflecting reduced domestic production, while growing imports into China reflected additions to refinery capacity.

Exports from Western Asia rose steadily, owing to growing shipments from the Islamic Republic of Iran following the end of economic sanctions. In the United States, shipments of crude oil increased as the 40-year ban on oil exports was lifted. In Nigeria, exports dropped sharply, owing to disruptions in production.

Table 1.6. Oil and gas trade, 2015 and 2016 (Million tons and annual percentage change)

	2015	2016	Percentage change 2015–2016
Crude oil	1 761	1 838	4.3
Petroleum products and gas	1 171	1 218	4.0
Of which			
Liquefied natural gas	250	268	7.2
Liquefied petroleum gas	79	87	10.1
Total tanker trade	2 932	3 055	4.2

Source: UNCTAD secretariat calculations, derived from table 1.4 above. Figures relating to liquefied natural gas and liquefied petroleum gas are derived from Clarksons Research, 2017a.
Note: Discrepancies with data in table 1.4 are due to rounding.

Together, refined oil products and gas trade volumes expanded by 4 per cent, taking total shipments to 1.2 billion tons in 2016. Demand for refined oil products was generally supported by a low oil price environment, with growth driven by increased exports from Western Asia, China and India, as well as by a recovery in Europe's import demand. While demand for refined oil products grew in China, India and the United States, weak economic growth in Japan and developing America, has nevertheless, constrained global imports of refined oil products. Volumes were supported by stronger gasoline demand, while diesel demand declined as a result of weak global industrial activity. Only India, the Republic of Korea and Europe recorded strong increases in diesel oil demand, mostly for transportation use.

With regard to gas trade, liquefied natural gas shipments were estimated to have expanded by 7.2 per cent in 2016, with shipments reaching 268 million tons (Clarksons Research, 2017b). Expansion was led by increased exports from Australia and the United States, which saw new liquefaction terminals come online. Volumes of imports into China, India and other Asian developing economies, notably in Western Asia, grew steadily. These positive developments helped offset declines in the import volumes of the Republic of Korea and Japan.

Liquefied petroleum gas trade rose by 10.1 per cent, with volumes reaching 87 million tons in 2016 (Clarksons Research, 2017b). Volumes were supported by the continued strong expansion in exports from the United States and Western Asia and robust import demand in China and India. The growing needs of the petrochemical industry and the household sector were the primary source of demand in both countries. For the liquefied petroleum gas sector, the opening in June 2016 of the expanded Panama Canal allowed for the passage of gas carriers, thus shortening the distance travelled on the United States–China route as compared with the Cape of Good Hope.

Dry cargo trades

Dry bulk shipments: Major and minor dry bulks

Overall, weak global investment and industrial activity have weighed down on the dry bulk trade segment,[4] which continues to be heavily dependent on developments in China. In 2016, world demand for dry bulk commodities grew at a modest rate of 1.3 per cent, taking total shipments to 4.9 billion tons. China remained the primary source of growth, owing to the positive impact of the stimulus measures introduced during the year. Policy-driven support measures helped increase infrastructure and housing market investment and in turn, the demand for commodities and steel. However, these trends were offset by declines in import volumes in Latin America and the Caribbean, North America and India. An overview of global players in the dry bulk sector, including producers, consumers and volumes shipped in 2016, is presented in tables 1.7 and 1.8.

Within the dry bulk segment, trade in the major bulk commodities increased by 1.6 per cent. Iron ore trade showed the strongest growth with volumes expanding by 3.4 per cent, reaching 1.4 billion tons in 2016. Imports into China increased by over 7 per cent, reflecting the country's steel output growth, falling domestic iron ore production, growing stockpiling activity and access to affordable, high-quality iron ore from Australia and Brazil. In contrast, iron ore imports into Europe and other Asian countries declined, in the wake of low steel prices.

Coal trade diminished in 2016, owing to flat demand for coal. Total volumes were estimated at 1.14 billion tons, with both coking coal and thermal coal volumes stagnating at 249 million tons and 890 million tons, respectively. A marginal increase in coking coal volumes reflected higher import demand in China and Japan. These were offset by declining import volumes in India, the Republic of Korea and Europe.

Declining imports of thermal coal into India, Japan, the Republic of Korea and Europe were offset by a 4 per cent increase in other Asian countries imports, notably China, where import volumes surged by over 28 per cent.

Table 1.7. Major dry bulks and steel: Market shares of producers, users, exporters and importers, 2016 (Percentage)

Steel producers		Steel users	
China	50	China	45
Japan	6	United States	6
India	6	India	6
United States	5	Japan	4
Russian Federation	4	Republic of Korea	4
Republic of Korea	4	Germany	3
Germany	3	Russian Federation	3
Turkey	2	Turkey	2
Brazil	2	Mexico	2
Other	18	Other	25
Iron ore exporters		**Iron ore importers**	
Australia	57	China	71
Brazil	26	Japan	9
South Africa	5	Europe	7
Canada	3	Republic of Korea	5
Sweden	2	Other	8
Other	7		
Coal exporters		**Coal importers**	
Australia	33	China	18
Indonesia	32	India	17
Russian Federation	9	Japan	16
Colombia	8	Europe	12
South Africa	6	Republic of Korea	11
United States	4	Taiwan Province of China	5
Canada	2	Malaysia	3
Other	6	Other	18
Grain exporters		**Grain importers**	
United States	22	Eastern and Southern Asia	34
Russian Federation	19	Africa	22
European Union	14	Developing America	19
Ukraine	11	Western Asia	16
Argentina	9	Europe	6
Canada	8	Transition economies	3
Others	17		

Sources: UNCTAD secretariat calculations, based on data from the World Steel Association, 2017a and 2017b; Clarksons Research, 2017d.

Grain trade grew by an estimated 3.7 per cent in 2016 as imports into the European Union rose sharply, owing to poor harvests in some producing member countries. In China, grain imports fell as the Government decided to promote the use of local grain stocks to support local farmers. Import demand in the United States declined due to strong domestic production, while Brazil increased its exports of corn and soybeans.

Given limited growth in the minor bulks trade, volumes remained static at an estimated 1.7 billion tons. The drag on volumes reflects the decline in steel products trade, as well as the reduction in bauxite and nickel ore shipments resulting from a bauxite-mining ban in Malaysia and nickel ore mine closures in the Philippines. However, trade in some other minor bulk commodities such as cement, petroleum coke and sugar was positive and helped offset slightly the decline in nickel ore and bauxite shipments.

Table 1.8. Dry bulk trade, 2015 and 2016 (Million tons and annual percentage change)

	2015	2016	Percentage change 2015–2016
Five major bulks	3 121	3 172	1.6
of which:			
Iron ore	1 364	1 410	3.4
Coal	1 142	1 140	-0.2
Grain	459	476	3.7
Bauxite/alumina	126	116	-7.9
Phosphate rock	30	30	1.0
Minor bulks	1 706	1 716	0.6
of which:			
Steel products	406	404	-0.5
Forest products	346	354	2.3
Total dry bulks	4 827	4 888	1.3

Source: UNCTAD secretariat calculations, based on data from Clarksons Research, 2017d.

Other dry cargo

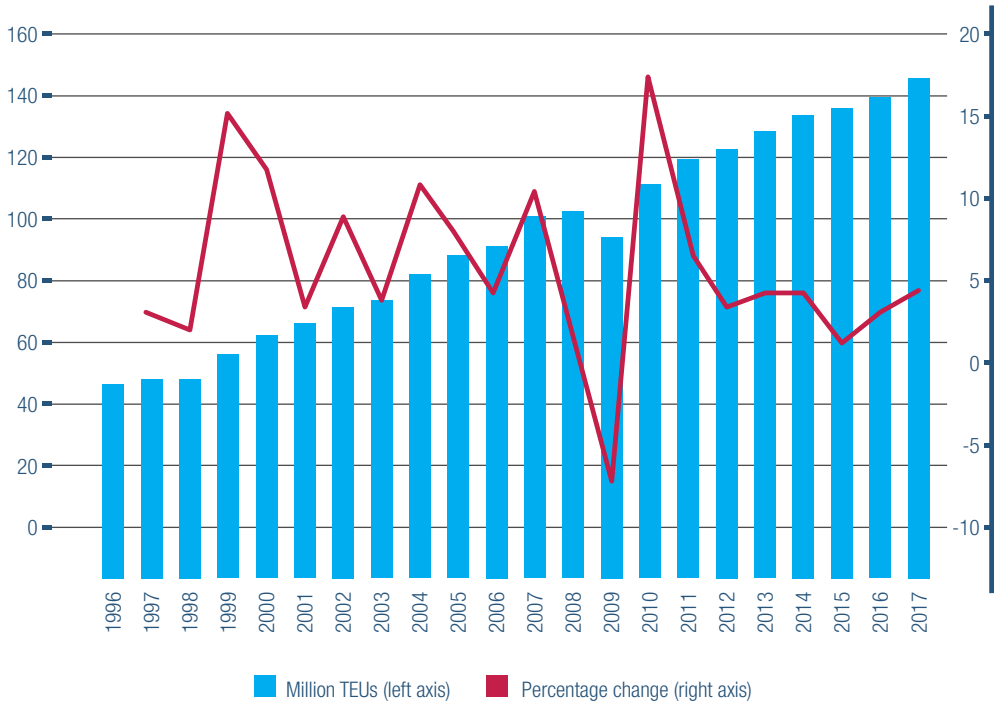
Containerized trade

As shown in figure 1.5, following a modest expansion of 1.2 per cent in 2015, global containerized trade expanded at a faster rate of 3.1 per cent in 2016, with volumes attaining an estimated 140 million 20-foot equivalent units (TEUs) (MDS Transmodal, 2017).

Recovery was driven by volume growth in the peak leg of the Asia–Europe trade, where volumes contracted in 2015. Other contributing factors were accelerated growth in intra-Asian cargo flows and positive trends in the trans-Pacific. Together, these developments contributed to raising overall containerized trade volumes. In contrast, limited growth on North–South trade routes caused by reduced import demand of key fuel and non-fuel commodity exporters hindered overall growth.

Table 1.9 and figure 1.6 summarize developments in contain trade flows on the main East–West trade routes. Cargo flows on the route increased by 4.4 per cent in 2016, up from 1.2 per cent in 2015. The trans-Pacific containerized trade route dominated the East–West containerized trade lane in 2016, with volumes exceeding 25 million TEUs. Volumes on the Asia–Europe route increased by 3.1 per cent, reflecting some recovery in volumes following the 2015 contraction. Volumes on the transatlantic trade route increased by 2.9 per cent, with volumes reaching 7 million TEUs in 2016.

Figure 1.5. Global containerized trade, 1996–2017 (Million 20-foot equivalent units and annual percentage change)



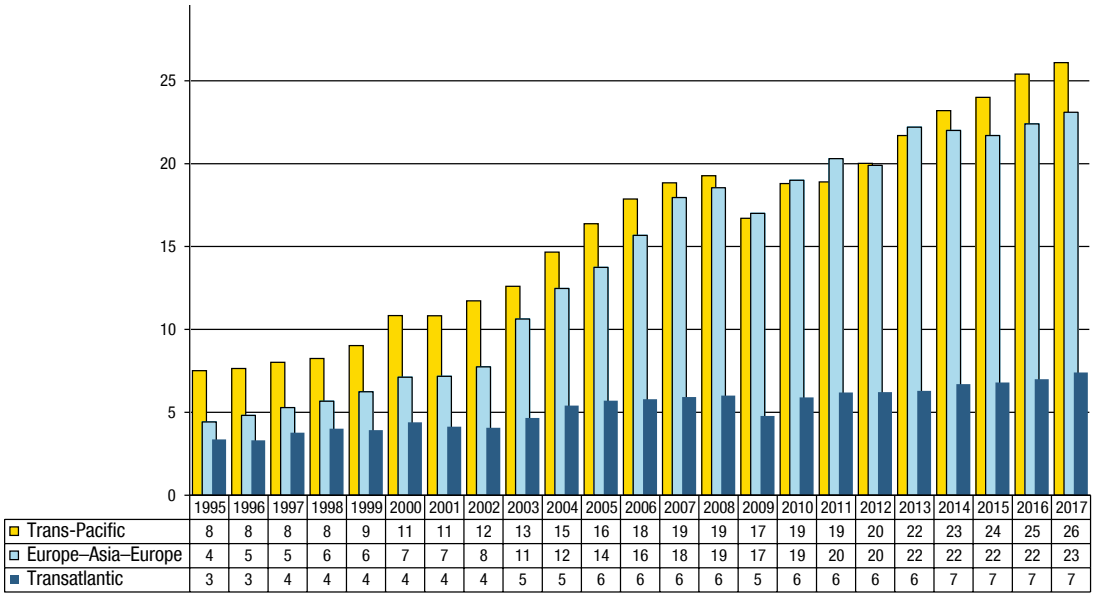
Source: UNCTAD secretariat calculations, based on data from MDS Transmodal, 2017.
Note: Data for 2017 are projected figures.

Table 1.9. Containerized trade on major East–West trade routes, 2014–2017 (Million 20-foot equivalent units and annual percentage change)

Year	Trans-Pacific Eastbound	Westbound	Asia–Europe Eastbound	Westbound	Trans-Atlantic Eastbound	Westbound
	Eastern Asia–North America	North America–Eastern Asia	Northern Europe and Mediterranean to Eastern Asia	Eastern Asia to Northern Europe and Mediterranean	North America to Northern Europe and Mediterra-nean	Northern Europe and Mediterra-nean to North America
2014	15.8	7.4	6.8	15.2	2.8	3.9
2015	16.8	7.2	6.8	14.9	2.7	4.1
2016	17.7	7.7	7.1	15.3	2.7	4.3
2017	17.9	8.2	7.6	15.5	2.9	4.5
Annual percentage change						
2014–2015	6.6	-2.9	0.0	-2.4	-2.4	5.6
2015–2016	5.2	7.3	4.0	2.8	0.5	3.3
2016–2017	1.0	6.4	7.3	1.8	6.7	4.5

Source: UNCTAD secretariat calculations, based on data from MDS Transmodal, 2017.
Note: Data for 2017 are projected figures.

Figure 1.6. Estimated containerized cargo flows on major East–West trade routes, 1995–2017 (Million 20-foot equivalent units)



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Trans-Pacific	8	8	8	8	9	11	11	12	13	15	16	18	19	19	17	19	19	20	22	23	24	25	26
Europe–Asia–Europe	4	5	5	6	6	7	7	8	11	12	14	16	18	19	17	19	20	20	22	22	22	22	23
Transatlantic	3	3	4	4	4	4	4	4	5	5	6	6	6	6	5	6	6	6	6	7	7	7	7

Sources: UNCTAD secretariat calculations, based on data from United Nations Economic Commission for Latin America and the Caribbean, 2010 (Global Insight database). Figures from 2009 onward are derived from data provided by MDS Transmodal, 2017 and Clarksons Research.

Note: Data for 2017 are estimated forecasts.

Table 1.10. Containerized trade on non-mainlane routes, 2015–2017 (Million 20-foot equivalent units and annual percentage change)

	Intraregional	South–South	Non-mainlane East–West	North–South
	Annual percentage change			
2015	3.2	-3.1	5.1	0.3
2016	5.1	-2.9	2.6	0.7
2017	6.1	-1.7	4.3	2.0

Source: UNCTAD secretariat calculations, based on data from Clarksons Research, 2017e.

Notes: Data for 2017 are projected figures.

Non-mainlane East–West: Trade from the Middle East and Indian subcontinent with Europe, the Far East and North America. North–South: Trade between regions of the southern hemisphere (Latin America, Oceania and sub-Saharan Africa) and those of the northern hemisphere (Europe, the Far East and North America). Intraregional: Mainly intra-Asian (trade between Asian countries, not including the Indian subcontinent). South–South: Trade between regions of the southern hemisphere.

As shown in table 1.10, intraregional trade continued to growth steadily (5.1 per cent) in 2016. To a large extent, intraregional trade has been gaining market share due to the rapid expansion in intra-Asian containerized trade, driven by the movement of intermediate goods and the value chains involving China and its neighbouring Asian countries. South–South trade contracted by 3.1 per cent and 2.9 per cent in 2015 and 2016, respectively. In this respect, the impact of lower commodity prices on developing economies' purchasing power may play a part in this development. However, given the small volumes associated with South–South containerized trade, the impact on overall trade appears to be marginal.

Falling commodity prices continued to undermine North–South trade and hinder flows on secondary East–West trade routes. There were fewer imports into Western Asia, owing to the negative impact of lower oil prices on the purchasing power of the region. Offsetting this trend, however, was the strong import demand in Southern Asia.

The troubles experienced by the liner shipping industry since 2008/2009 highlight the difficulties for the sector to adapt to the seemingly "new normal", where merchandise trade flows are growing at a slower pace than GDP. In an oversupplied market characterized by mega containerships (over 18,000 TEUs) and overall weak growth in global demand, the shipping industry has turned to consolidation and rationalization to optimize capacity utilization and reduce costs. In 2016 and first half of 2017, the container shipping industry intensified its consolidation efforts, both in the form of mergers and acquisitions, as well as through shake-ups in liner shipping alliances and the exit from the market of a major container shipping company after it filed for bankruptcy protection (Hanjin effect). The advent of megaships, intensified consolidation activity and formation of new and larger shipping alliances is

altering overall liner shipping dynamics and forces. It remains unclear whether this is a temporary cyclical development or a permanent structural shift.

These trends could potentially alter the bargaining powers between large carriers and cargo owners and entail some negative implications for prices and costs to shippers, as well as trade competitiveness through reduced market access, with lines and alliances deploying strategies that may change the configuration of their networks and market areas serviced by their port calls.

Ship upsizing and cascading of capacity continue to affect containerized trade, while the opening of the expanded Panama Canal locks is creating a shift in ship deployment patterns, which could affect seaborne trade. In the second quarter of 2017, some 40 "old Panamax" ships were deployed on the Asia–United States East Coast route via the Panama Canal. In comparison, there were over 150 "old Panamax" ships in early June 2016. These have been replaced by capacity ranging from 8,000–12,000 TEUs (Clarksons Research, 2017c). Ship cascading onto secondary trade routes is affecting the usual balance between transhipment and direct call patterns, a trend that can be expected to continue as carriers aim to limit the number of calls made by their megaships (Lloyd's List, 2017).

The standard box or container is considered to be a landmark technological development that revolutionized shipping and seaborne trade when it was first introduced over 60 years ago. Today other technological developments are unfolding and could redefine not only the containerized trade landscape but the entire maritime transport sector. These span digitalization, e-commerce, cloud computing, big data, the Internet of Things, three-dimensional printing (also known as additive manufacturing), to name but a few (UNCTAD, forthcoming). Some observers have estimated that as much as 37 per cent of container shipping operations and related freight flows are threatened by three-dimensional printing (PricewaterhouseCoopers, 2015). Others, however, question this estimate. They consider that three-dimensional printing is destined for only a niche role in logistics, for example, prototyping, aftermarket or service logistics where spare parts are required to be available on a timely basis, for locations that are not accessible and where supply chains are uncertain, especially in remote developing regions. Furthermore, the technology will not result in a huge disruptive effect (Lloyd's Loading List, 2016). How trends will evolve and whether they will materialize and at what speed still remains to be seen.

The rapid expansion of e-commerce is to a large extent enabled by digitalization and the use of electronic platforms. The market for e-commerce expanded significantly over the past decade and continues to grow. While global e-commerce is still dominated by the developed economies, the highest growth can be observed in developing regions, especially in Asia. UNCTAD estimates the 2015 business-to-consumer sales and business-to-business sales reached $25.3 trillion in 2015, $9 trillion above the 2013 value. The business-to-business segment represents the largest share of e-commerce, while the business-to-consumer segment appears to be expanding faster. The world's largest business-to-consumer e-commerce market, China, accounted for $617 billion, followed by the United States, with $612 billion. However, the United States led in business-to-business sales (UNCTAD, 2017c).

Experts participating in the third UNCTAD E-commerce Week held in April 2017, emphasized the magnitude of opportunities and challenges that e-commerce entails for transport and trade, noting that there was "more than enough capacity in the shipping and air transport channels to deal with the anticipated and projected increase in the number of shipments due to e-commerce trade" (UNCTAD, 2017d). Data from the Universal Postal Union on the volume of international postal traffic offer insights into the recent growth of cross-border e-commerce of goods. Between 2011 and 2016, global deliveries of small packets, parcels and packages more than doubled, most likely in great part due to e-commerce transactions (OECD and World Trade Organization, 2017).

These trends have implications for shipping and container shipping. For industry players such as liner shipping companies, logistics service providers and air carriers, e-commerce will likely have a transformational effect on transport and supply chains (Business Insider, 2016). While this impact continues to unfold, one basic pattern is emerging and is pointing to the importance of ocean shipping for e-commerce. There is a growth in the strategic distribution support centres for both cross-border and domestic e-commerce transactions and a rise in business models that favour the emergence of shipping as the main mode of transport (JOC.com, 2016). Products that are highly time sensitive and could rapidly lose value between production and delivery will continue to favour air transport. However, for goods that are less time sensitive and that rely on forward inventory systems close to markets – seemingly the preferred e-commerce supply chain model – maritime shipping will remain the favoured mode of delivery (JOC.com, 2016). This e-commerce supply chain model is more cost-effective and allows for e-commerce-specific services that are well integrated with logistics.

C. OUTLOOK AND POLICY CONSIDERATIONS

1. Economic situation

According to UNCTAD projections, world GDP will expand by 2.6 per cent in 2017, up from 2.2 per cent in 2016. This growth is not expected to reflect a sustained recovery in global demand, but rather factors such as the end of the destocking cycle in the United

States; improved commodity price levels; the impact of support measures such as stimulus packages, for example in China; and gradual economic recovery in Brazil and the Russian Federation. Expansion in Eastern and Southern Asia is expected to accelerate, with developments in China remaining a key determinant of the outlook. Projected growth in the least developed countries (4.4 per cent) remains below the Sustainable Development Goal target. In line with GDP growth, world merchandise trade volumes are also expected to expand: the World Trade Organization forecasts an increase of 2.4 per cent in 2017, up from 1.9 per cent in 2016. Projected growth is, however, placed within a range of 1.8 per cent to 3.6 per cent.

The conclusion of the Economic Partnership Agreement between the European Union and Japan in July 2017 was a positive development that could support trade flows. The Agreement is expected to abolish most of the duties paid by companies in the European Union, which are estimated at €1 billion annually (*Financial Times*, 2017). It is also expected to open the Japanese market to key agricultural exports, end tariffs on automobiles and automotive parts, and further open services trade (European Commission, 2017). The European Union–Canada Comprehensive Economic and Trade Agreement is also likely to come into force in 2017–2021 (Economist Intelligence Unit, 2017).

In addition, policies that tackle persistent transport infrastructure gaps in the developing countries and enable adequate capacity in maritime transport could also help boost trade. Sustainable Development Goal 9 ("build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation") and more specifically, Goal 9.1 relating to resilient infrastructure, provides a framework for channelling relevant efforts. The Inter-agency and Expert Group on Sustainable Development Goal Indicators has proposed that freight volumes, including by mode of transport, be used to measure progress in achieving Goal 9.1.

Yet, the expected gradual recovery in the world economy and trade continues to be overshadowed by uncertainty and risks. These include the continued rebalancing of the Chinese economy, the new policy framework in the United States and the outcome of the negotiations between the United Kingdom and the rest of the European Union and their future economic and trade relations after the United Kingdom leaves the Union. One study estimates that both a "hard" exit of the United Kingdom resulting in a loss of preferential access to the European single market, and the imposition of various trade barriers in the United States would reduce the value of world merchandise exports to a level close to 3 per cent below baseline in 2030. In terms of value, the loss would be equivalent to $1.2 trillion (*Shipping and Finance*, 2017).

Various factors play against a strong revival in merchandise trade growth: concerns over the potential rise of trade protectionism, moving production closer to home, shortening supply chains, a growing aversion to trade liberalization and the failure of regional trade agreements such as the Transatlantic Trade and Investment Partnership and the Trans-Pacific Partnership Agreement to fully materialize.

2. Seaborne trade development forecasts

Bearing in mind projected growth in world GDP and merchandise trade and the downside risks to the global economy and trade policy, various estimates of future seaborne trade growth have been put forward and all appear to converge on continued growth in world seaborne trade in 2017. As shown in table 1.11, UNCTAD forecasts an increase in world seaborne trade volumes between 2017 and 2022. Projected growth estimates are based on the income elasticity of seaborne trade, including by cargo segment derived by using regression analysis over 2000–2016. Combining the estimated elasticities with the latest International Monetary Fund GDP growth projections for 2017–2022, world seaborne trade volumes are expected to expand across all segments, with containerized trade and major dry bulk commodities trade recording the fastest growth.

In 2017, UNCTAD forecasts indicate that world seaborne trade volumes will reach 10.6 billion tons, reflecting an increase of 2.8 per cent, up from 2.6 per cent in 2016. Improved prospects reflect a firming up in demand in the dry bulk trade sector, with the major bulk commodities projected to expand by 5.4 per cent in 2017. Containerized trade is projected to grow by 4.5 per cent, owing mainly to growing intra-Asian trade volumes and improved flows on the East–West mainlanes. Growth in tanker trade is expected to diminish, reflecting the impact of oil output cuts by major producers since the start of 2017, as well as some recovery in oil price levels. Crude oil trade is projected to grow by less than 1 per cent while, together, refined petroleum products and gas are projected to grow by 2 per cent.

As shown in table 1.11, the medium-term outlook is also positive. UNCTAD projects world seaborne trade volumes to expand at a compound annual growth rate of 3.2 per cent between 2017 and 2022. This is in line with some existing projections, including by Clarksons Research and is consistent with the historical average annual growth rate of 3 per cent estimated by UNCTAD in 1970–2016.

Between 2017 and 2022, trade in the major commodities and containerized trade is forecast to growth by 5.6 per cent and 5 per cent, respectively. Volumes are likely to be further supported by infrastructure development projects such as the One Belt, One Road initiative (China), the International North–South Transport Corridor (India, the Russian Federation and Central Asia) and

the Quality for Infrastructure Partnership (Japan). With around 900 projects either under negotiation or under way, the One Belt, One Road initiative, for example, may boost demand for raw materials and support Chinese exports of machinery and manufactured goods by sea. These would help support dry bulk shipments, port development and the container network (Gordon, 2017). The financing of the initiative remains, however, an important consideration. China has provided initial funding but more resources are required. The project will involve mobilizing financing through various channels (United Nations Economic and Social Commission for Asia and the Pacific, 2017). Prospects relating to coal remain, nevertheless uncertain, given the global green and climate agenda and the incremental phasing out of coal in favour of renewable energies.

Projected growth in tanker trade volumes is expected to remain relatively modest between 2017 and 2022. Crude oil volumes and refined petroleum products and gas are projected to increase by 1.2 per cent and 1.7 per cent, respectively. Future developments in oil trade remain uncertain due to trends relating to shale oil production and crude oil imports in the United States. Prospects for gas trade seem to be more positive.

3. Policy considerations

Seaborne trade is of strategic economic importance, as it accounts for over 80 per cent of world merchandise trade by volume and more than 70 per cent of its value. Projected growth in world seaborne trade remains subject to uncertainty and several downside risks. It is imperative to tackle these risks and uncertainty. Preparing for the projected growth in world seaborne trade volumes will be required; this means that implications for ship carrying capacity, maritime transport connectivity, port performance and capacity requirements be identified and clearly understood. In this context and considering the emerging trends currently shaping the outlook for seaborne cargo flows, some important issues are arising and span areas such

Table 1.11. Projected seaborne trade developments, 2017–2030

	Growth rates	Years	Seaborne trade flows	Source
Lloyd's List Intelligence	3.1	2017–2026	Seaborne trade volume	*Lloyd's List Intelligence research, 2017*
	4.6	2017–2026	Containerized trade volume	
	3.6	2017–2026	Dry bulk	
	2.5	2017–2026	Liquid bulk	
Clarksons Research Services	3.1	2017	Seaborne trade volume	*Seaborne Trade Monitor, June 2017*
	4.8	2017	Containerized trade volume	*Container Intelligence Monthly, June 2017*
	5.1	2018	Containerized trade volume	*Container Intelligence Monthly, June 2017*
	3.4	2017	Dry bulk	*Dry Bulk Trade Outlook, June 2017*
	2.1	2017	Liquid bulk	*Seaborne Trade Monitor, June 2017*
Drewry Maritime Research	1.9	2017	Containerized trade volume	*Container Forecaster, Quarter 1, 2017*
Maritime Strategies International	3.7	2017	Containerized trade volume	*Dynamar B.V, Dynaliners Monthly, May 2017*
	4.5	2018	Containerized trade volume	
	4.5	2019	Containerized trade volume	
McKinsey	3.0	2017	Containerized trade volume	*Dynamar B.V, Dynaliners Monthly, May 2017*
IHS Markit	By a factor of 2.7	2016–2030	Seaborne trade value	*IHS Markit research, 2016*
UNCTAD	2.8	2017	Seaborne trade volume	*Review of Maritime Transport 2017*
	4.5	2017	Containerized trade volume	
	5.4	2017	Five major bulks	
	0.9	2017	Crude oil	
	2.0	2017	Refined petroleum products and gas	
UNCTAD	3.2	2017–2022	Seaborne trade volume	*Review of Maritime Transport 2017*
	5.0	2017–2022	Containerized trade volume	
	5.6	2017–2022	Five major bulks	
	1.2	2017–2022	Crude oil	
	1.7	2017–2022	Refined petroleum products and gas	

Sources: UNCTAD secretariat calculations, based on own calculations and forecasts published by the indicated institutions and data providers (column 5 of table).
Note: Figures by Lloyd's List Intelligence and UNCTAD are compound annual growth rates. Figures for the other sources are annual percentage changes.

as trade policy, infrastructure development as well as technology and e-commerce.

At the trade policy level and bearing in mind the overall policy framework under the Addis Ababa Action Agenda and the 2030 Agenda for Sustainable Development, efforts should aim to limit trade-restrictive measures. Developments relating to regional trade agreements and their potential implications for trade and shipping should be monitored and assessed. An example is the trade that could derive from the newly adopted European Union–Japan free trade agreement, given the associated significant ton-miles and capacity utilization (Baltic and International Maritime Council, 2017). Furthermore, effective implementation of the World Trade Organization Agreement on Trade Facilitation, which came into force in February 2017, can help support trade flows by unlocking capacity and reducing transaction costs, especially in developing economies.

In parallel, policies that tackle the persistent transport infrastructure gaps in developing economies and enable adequate capacity in maritime transport to effectively service and boost trade should also be promoted. Furthermore, policy measures that have an important transport infrastructure development component (for example, the One Belt, One Road initiative) could also stimulate trade and boost demand for maritime transportation.

Cross-border e-commerce patterns that favour shipping as the main mode of transport could also be promoted. Intervention measures may include helping relevant e-commerce stakeholders embrace technology, implementing trade facilitation solutions and customs reforms and developing common standards and practices. Clarifying the scale of digitalization and its implications for industrial production processes, supply chains, shipping and seaborne trade will also be necessary to ensure the formulation of adequate response measures.

Monitoring developments in the liner shipping markets, including the impact of liner shipping market consolidation and concentration on shipping rates and prices will be required to ensure that trade is not undermined by increasing shipping costs in the longer term, as will be discussed in the following chapters.

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ENDNOTES

1. See *Review of Maritime Transport 2015* for a discussion of structural and cyclical factors underpinning this trend.
2. See *Review of Maritime Transport 2016* for a more detailed discussion.
3. Other dry cargo refers to all dry cargo except major and minor bulks.
4. Detailed figures on dry bulk commodities are derived from Clarksons Research, 2017d.