

Section 5
Policy and Other Influences on the Supply of Tobacco Products

Chapter 13
Licit Trade in Tobacco Products

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The liberalization of trade in recent decades has affected the global market for tobacco products and has been shown to affect cigarette consumption, particularly in low- and middle-income countries. This chapter examines the current state of licit trade in cigarettes and tobacco leaf and its impact on tobacco control efforts. Specific topics include:

- Import, export, and price trends for both cigarettes and tobacco leaf across different countries and world regions
- The potential impact of trade liberalization on cigarette consumption, as revealed by a review of the literature and by economic analyses
- Global, regional, and bilateral trade agreements and their impact on tobacco use.

The current trade environment for tobacco leaf and tobacco products underscores the importance of implementing and enforcing effective tobacco control policies, particularly in ways that do not discriminate between imported and domestic products. Broad policies, such as tobacco excise tax increases, bans on smoking in public places and workplaces, packaging and labeling measures, and comprehensive bans on marketing, are important tools for controlling tobacco use and mitigating the impact of trends in international trade.

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Introduction

The past few decades have seen an expansion of international trade in tobacco leaf and tobacco products due to increased economic globalization (see chapter 12 for further discussion on globalization). This expansion has been spurred by global, regional, and bilateral trade agreements that reduce tariff and non-tariff barriers to trade and facilitate the investments of multinational tobacco companies (MTCs) in new markets. The increased competition that results frequently leads to lower tobacco product prices and more aggressive marketing efforts which increase tobacco use and its adverse health consequences. Trade liberalization is likely to have its greatest impact on low- and middle-income countries (LMICs) because of their historically less open markets and generally weaker tobacco control policies.

This chapter provides an overview of trends in the trade of tobacco leaf and tobacco products by World Health Organization (WHO) Region and country income group, using data from the Food and Agriculture Organization of the United Nations (FAOSTAT). (Note that quantities of tobacco leaf and tobacco products are expressed in tonnes, a unit of mass equal to 1,000 kg, or 2,204.6 pounds.) Tobacco products in this chapter generally refer to cigarettes, due to limited data for other tobacco products. This chapter discusses empirical evidence on the effects of trade liberalization on tobacco use and provides new estimates that update and extend previous research. It also describes major global, regional, and bilateral trade agreements, their implications for tobacco trade, and their impact on tobacco control regulations. The chapter emphasizes the need for strong tobacco control policies to offset the impact of increased trade in tobacco.

Overview of Tobacco Trade

Trends in Global Trade

Tobacco Leaf

International trade in tobacco leaf has trended upward during the past few decades. Most of the countries trading tobacco are net importers of tobacco leaf; of the 164 trading countries (or territories) in 2012, only 45 (27.4%) exported a higher value of tobacco leaf than they imported.¹

In 2012, global trade in tobacco leaf represented only 0.97% of the total value of agricultural imports and 0.91% of the total value of agricultural exports.¹ However, trade in tobacco leaf is a significant economic activity for some countries. In Paraguay, trade in tobacco leaf accounted for 13.9% of the total value of imported agricultural products; in Zimbabwe, that figure was 11.3%, and in Malawi, 10.6%.¹ For all other tobacco-trading countries, the share was less than 10%. When the export earnings from tobacco leaf are compared with total agricultural export earnings in 2012, the proportion is much higher for Zimbabwe (61.4%) and Malawi (60.1%). In 2012, value from tobacco exports relative to total agricultural exports was also high in Mozambique (38.0%), Macedonia (23.1%), Bangladesh (15.9%), Zambia (12.0%), and Tanzania (11.9%).¹

In 2012, approximately 52% of the world's tobacco leaf was exported by just five countries: Brazil (23.6%), India (8.9%), People's Republic of China (8.0%), the United States (6.2%), and Malawi (5.3%).¹ Approximately 37% of global tobacco leaf imports in 2012 were accounted for by five countries: the Russian Federation (9.5%), the United States (8.3%), China (6.9%), Germany (6.6%), and the Netherlands (5.8%).¹

The quantity of tobacco leaf exports increased fairly steadily between 1980 and 2009, followed by a slight decrease beginning in 2009-2010 (Figure 13.1). Between 1980 and 2002, the value of tobacco leaf exports fluctuated, but export value has risen fairly steadily since 2002.¹

The quantity of tobacco leaf imports generally increased from 1980 to 2012. Import values varied during this same period, but generally trended upward after 2007 (Figure 13.2).

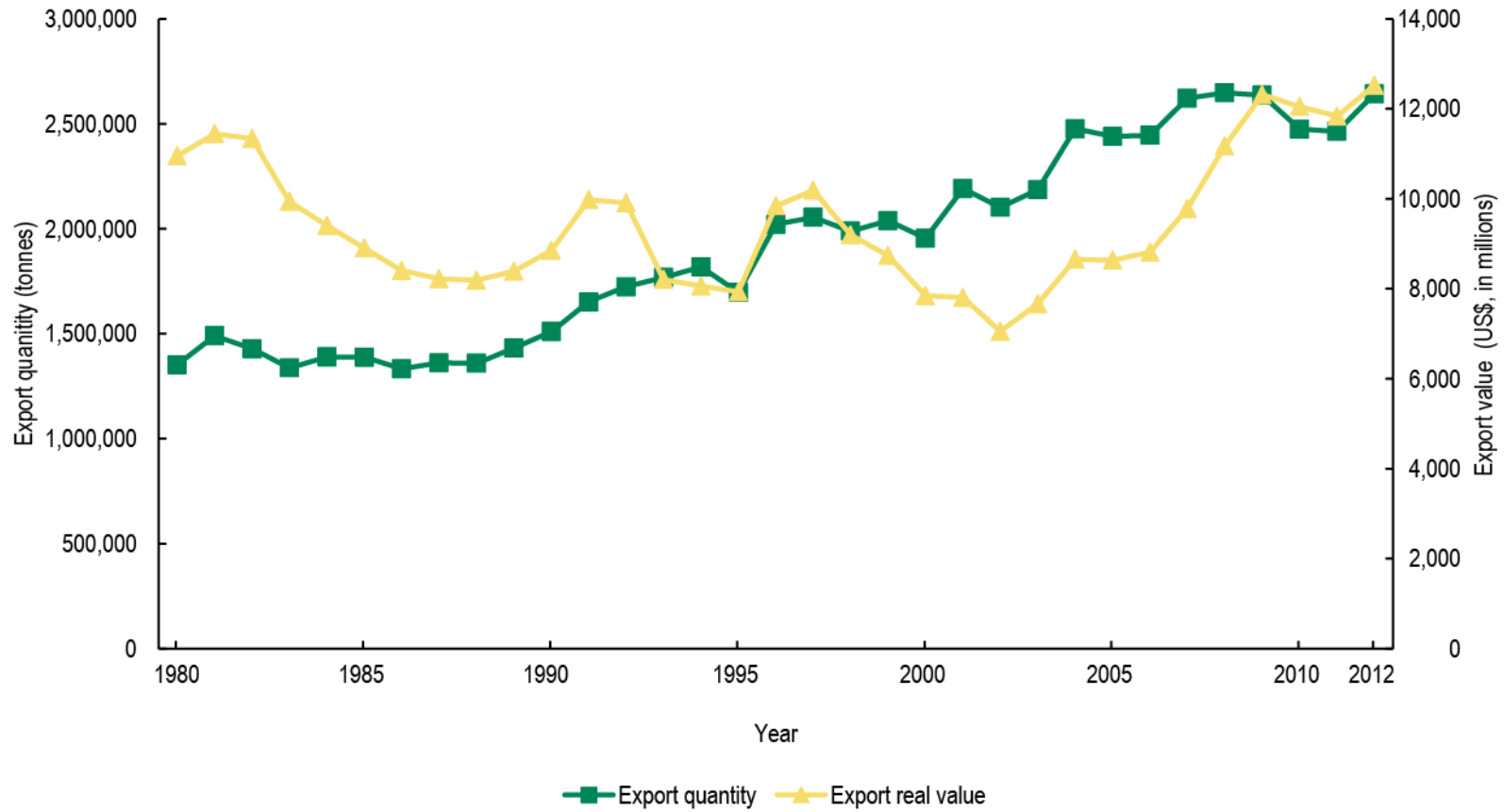
Until the early 1990s, high-income countries (HICs), most notably the United States, were the leading tobacco leaf exporters (Figure 13.3). Since then, upper middle-income countries have become the leading exporters. In 2012, upper middle-income countries accounted for 42.9% of the global quantity of tobacco leaf exported, and HICs accounted for 23.0%. The remaining exports came from low-income countries (18.6%) and lower middle-income countries (15.5%). When the value of exports is compared, HICs have a lower share (29.4%) of the global value than LMICs (70.6%).¹

Figure 13.4 shows trends in tobacco leaf import quantity by country income group. HICs have accounted for most of the tobacco leaf imports for many decades (60% in 2012). This high rate of imports was driven by the significant cigarette production in these countries, even in those that were large tobacco growers and exporters (e.g., United States, Germany). HICs have increasingly relied on imports of low-priced, high-quality leaf from LMICs. In contrast, low-income countries import little tobacco leaf because of their limited role in global cigarette manufacturing.¹

The Region of the Americas exported the largest amount of tobacco leaf—36.4% of global exports in 2012 (Figure 13.5), Brazil exported the largest quantity, followed by the United States, Argentina, Canada, and Guatemala. The European Region was second, with an overall percentage of 21.8%; top European exporters were Belgium, Italy, Turkey (a large grower and trader of oriental tobacco), the Netherlands, and Greece. The African Region was third (19.1%), mainly because of large quantities of tobacco leaf exported by Malawi, Zimbabwe, Tanzania, Mozambique, and Zambia.¹

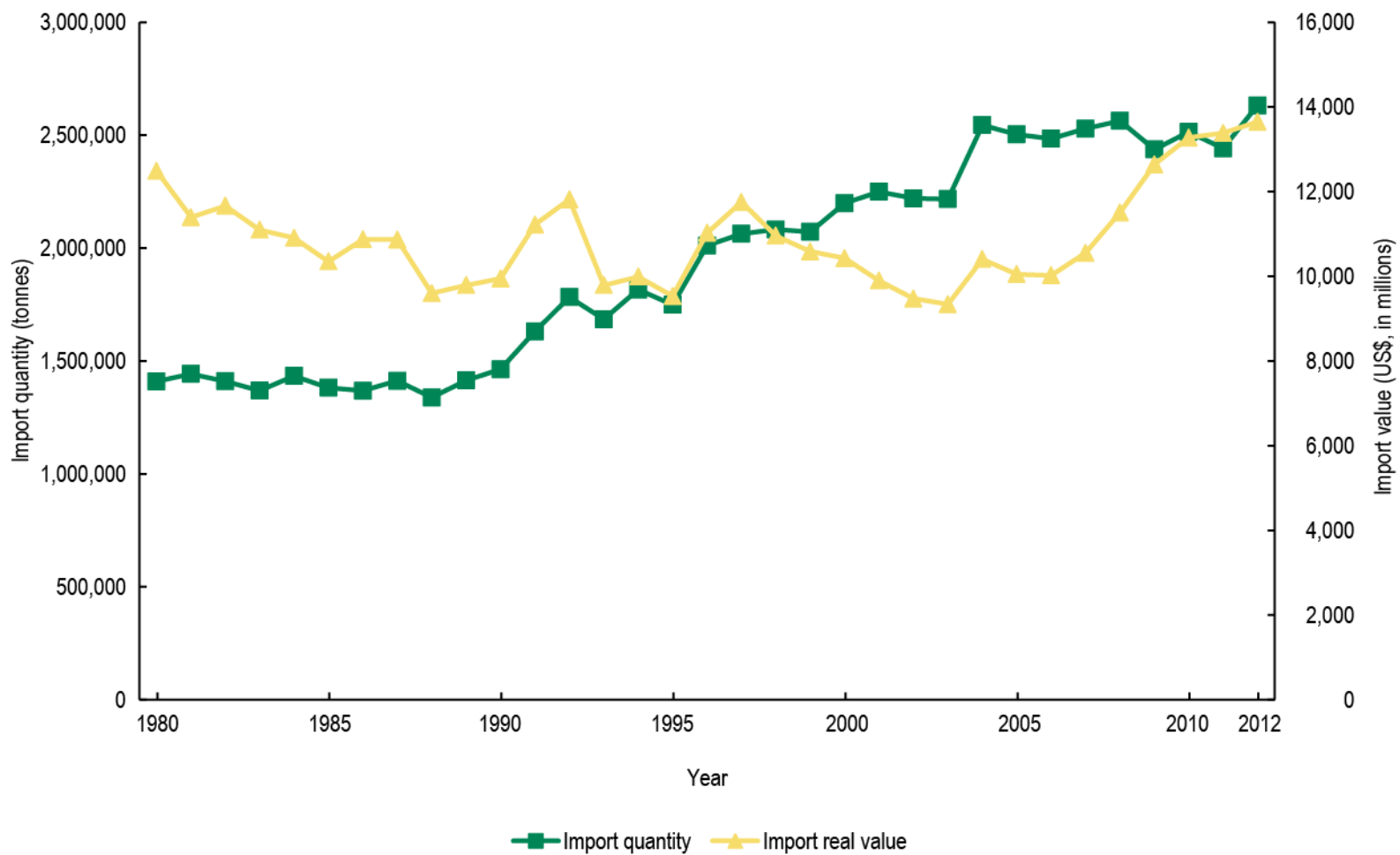
European countries, led by the Russian Federation, Germany, the Netherlands, France, and Belgium, were the largest importers of tobacco leaf, accounting for 51.6% of global leaf imports in 2012 (Figure 13.6). The Western Pacific Region and the Americas Region were next with 18.3% and 14.1% of global leaf imports, respectively, followed by smaller shares for the South-East Asia (5.8%), African (5.6%), and Eastern Mediterranean (4.5%) Regions.¹

Figure 13.1 Global Tobacco Leaf Exports, Quantity and Inflation-Adjusted Value, 1980–2012



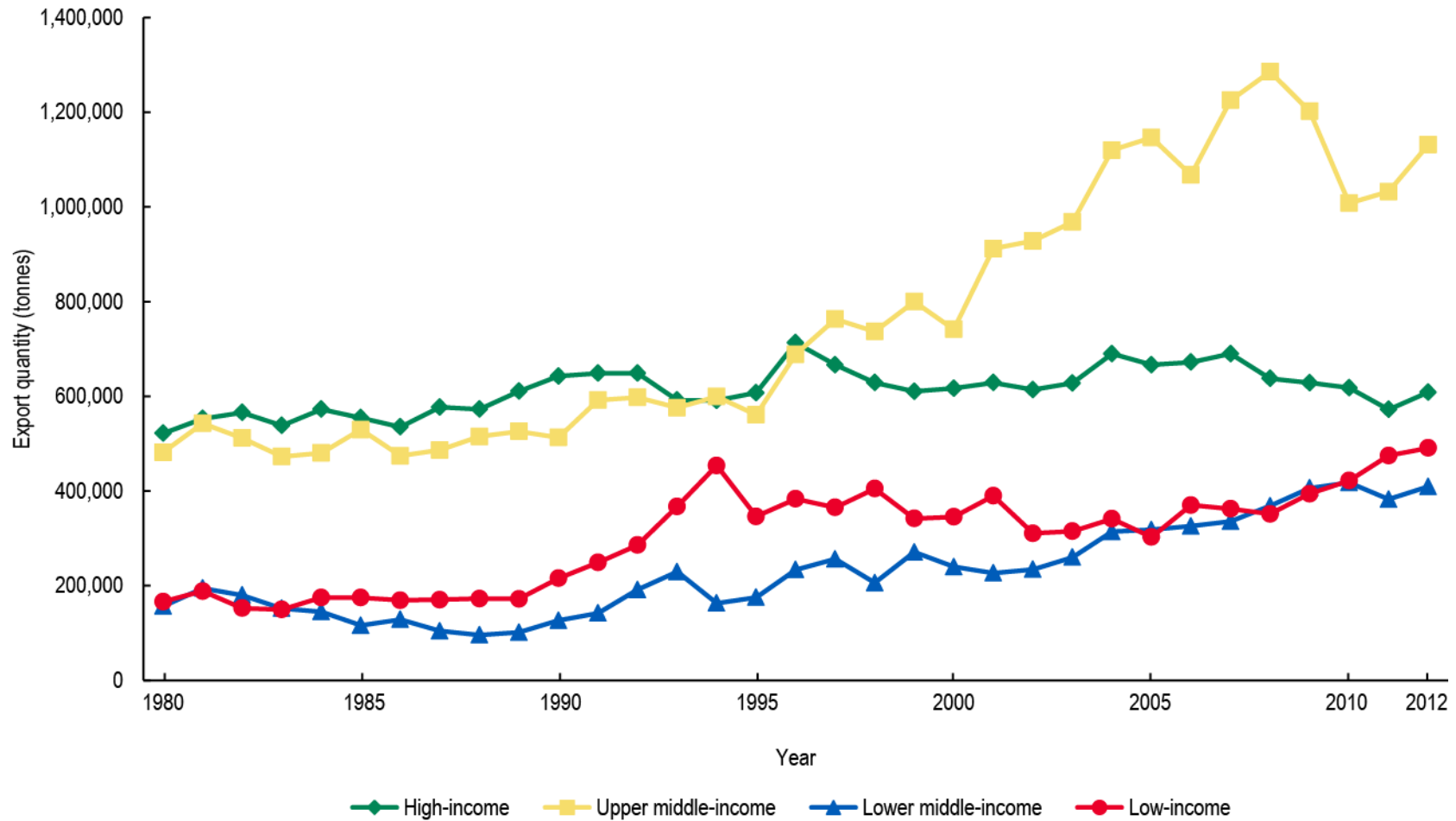
Note: Export value adjusted for inflation using 2012 U.S. dollars.
Source: FAOSTAT 1980–2012.¹

Figure 13.2 Global Tobacco Leaf Imports, Quantity and Inflation-Adjusted Value, 1980–2012



Note: Import value adjusted for inflation using 2012 U.S. dollars.
 Source: FAOSTAT 1980–2012.¹

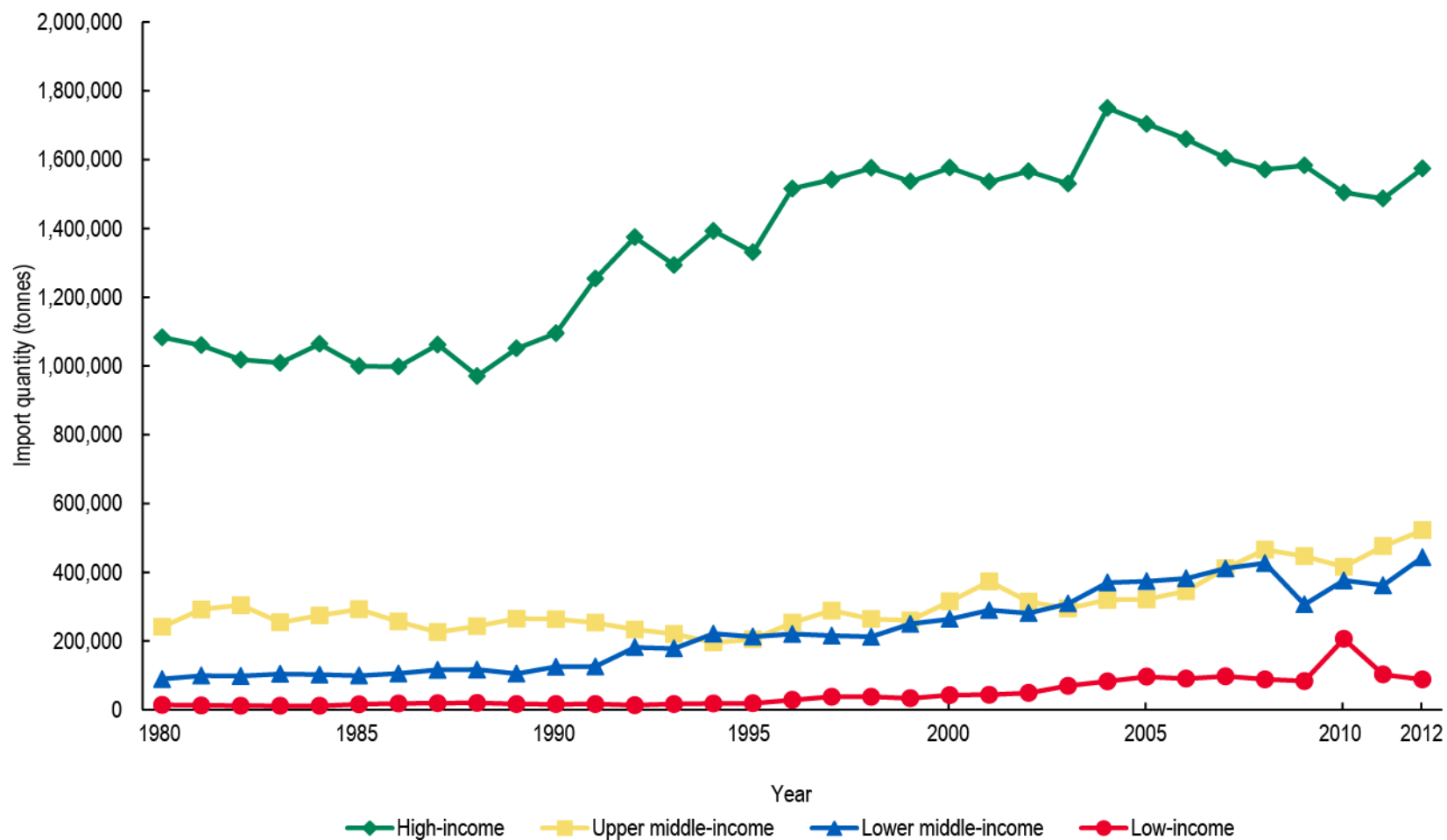
Figure 13.3 Tobacco Leaf Export Quantity, by Country Income Group, 1980–2012



Note: Country income group classification based on World Bank Analytical Classifications for 2012.

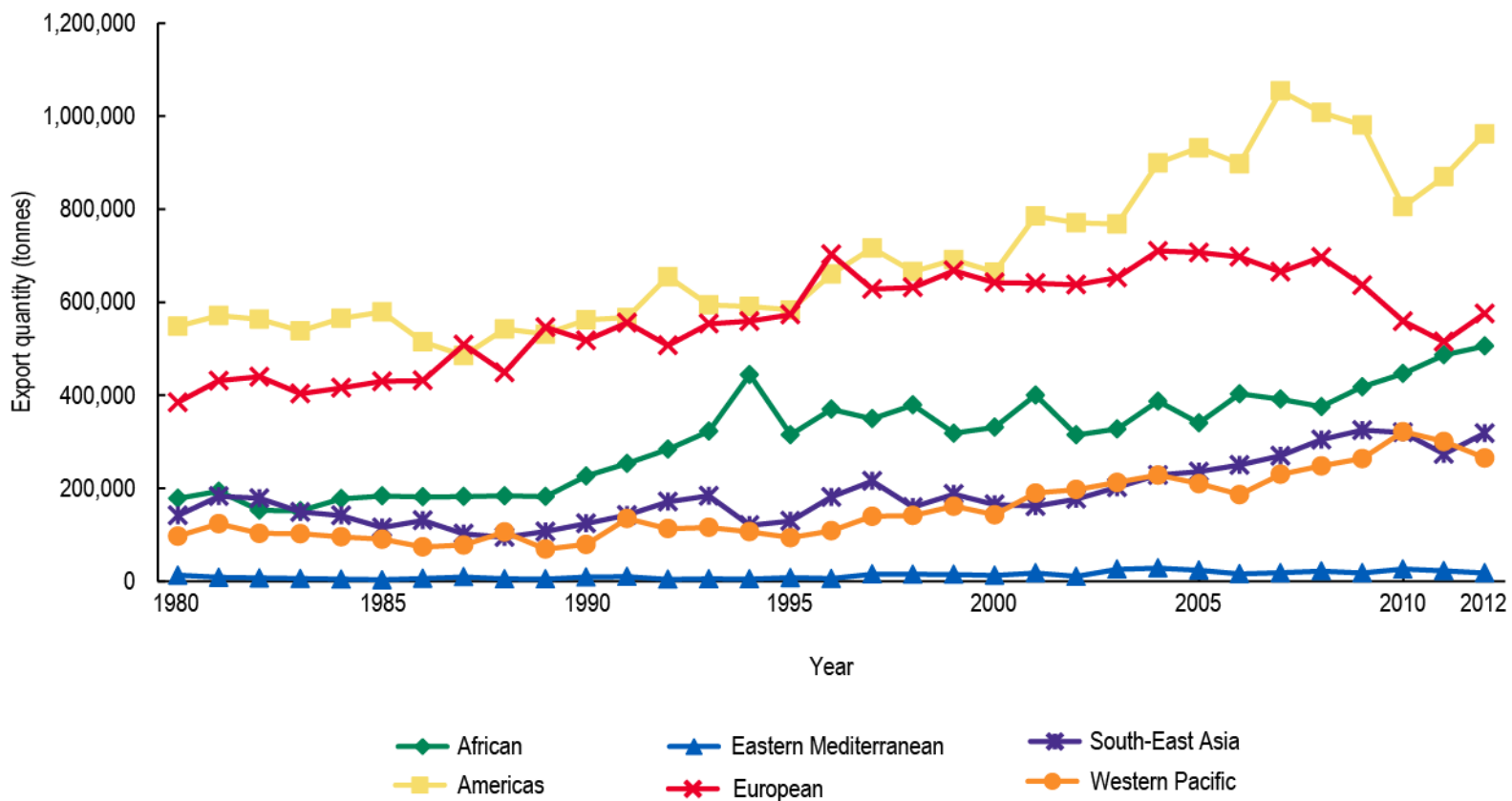
Source: FAOSTAT 1980–2012.¹

Figure 13.4 Tobacco Leaf Import Quantity, by Country Income Group, 1980–2012



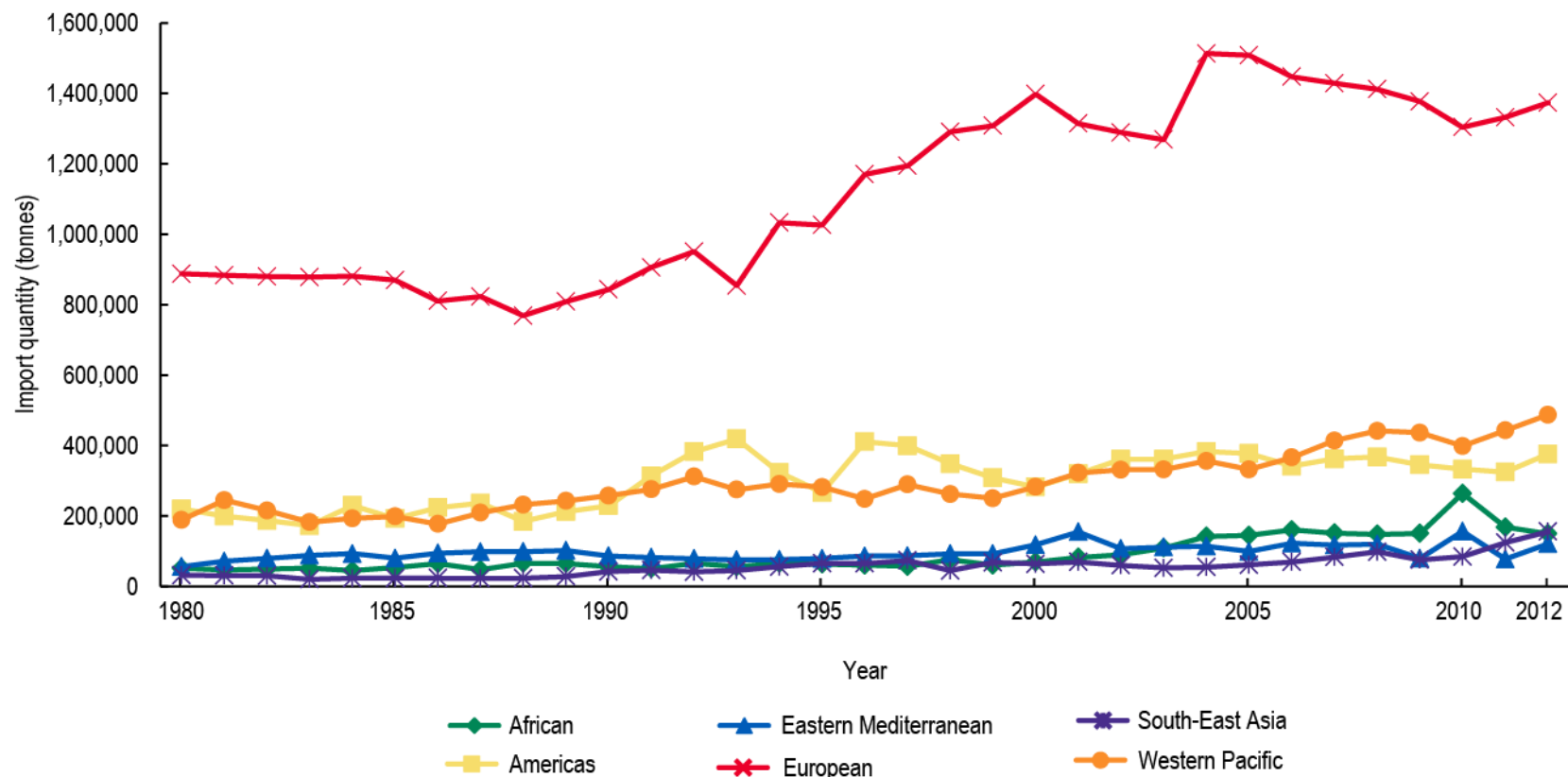
Note: Country income group classification based on World Bank Analytical Classifications for 2012.
 Source: FAOSTAT 1980–2012.¹

Figure 13.5 Tobacco Leaf Export Quantity, by WHO Region, 1980–2012



Source: FAOSTAT 1980–2012.¹

Figure 13.6 Tobacco Leaf Import Quantity, by WHO Region, 1980–2012



Source: FAOSTAT 1980–2012.¹

Cigarettes

The number of countries or territories trading in cigarettes increased by about one-third between 1970 and 2012 (from 144 to 188 countries or territories). This figure included countries either importing or exporting any quantity of cigarettes. Most trading countries are importers. Of the 188 trading countries in 2012, only 49 (26.1%) had a positive trade balance (in U.S. dollars) in cigarettes.¹

Although tobacco products are widely traded, they account for a relatively small share of overall global trade. Even exports and imports in cigarettes, by far the most traded tobacco product, still made up only 0.11% (45 billion U.S. dollars [US\$]) of the total trade in goods and services in 2012.¹ In countries where cigarettes account for the largest share of trade, their absolute share is still low; those at the high end include Armenia (1.28%), Guinea-Bissau (1.11%), Niger (1.09%), Moldova (0.94%), and Cambodia (0.93%).¹ As a share of gross domestic product (GDP), trade in cigarettes is generally minimal, less than 1% for most countries, with the highest shares in 2012 in Tonga (1.7%), Moldova (1.5%), Cambodia (1.5%), Kiribati (1.3%), and Mauritania (1.2%).¹

In 2012 the five largest exporters of cigarettes exported 520,561 tonnes of cigarettes, or 45.9% of world cigarette exports. The top exporters were: Germany (15.0% of total cigarette exports), the Netherlands (9.8%), Poland (9.2%), China (6.1%), and Indonesia (5.7%). The five largest importers of cigarettes imported 298,501 tonnes of cigarettes, accounting for roughly 29% of world cigarette imports: Japan (8.1%), Italy (7.5%), the United Arab Emirates (5.1%), the Netherlands (4.5%), and France (4.2%).¹

World cigarette exports generally increased in both quantity and value from 1980 to 1996, decreased from 1996 to 1999, and then increased again in the mid-2000s (Figure 13.7). The most rapid increases took place in the late 1980s and early 1990s—coinciding with the expansion of the General Agreement on Tariffs and Trade (GATT), adoption of numerous regional and bilateral trade agreements, and privatization of many domestic tobacco monopolies—all of which together greatly liberalized trade in tobacco products.

Similar trends have been seen with world cigarette imports, which rose in quantity and value from 1980 to 1997 before falling and then stabilizing; however, after 2003 import levels began to rise again, at a pace similar to the earlier steep rise (Figure 13.8). A comparison of Figures 13.7 and 13.8 shows that the quantity of exported cigarettes exceeds the quantity of imported cigarettes. As discussed in chapter 14, this apparent difference is thought to be due largely to illicit trade in cigarettes and other tax evasion strategies.

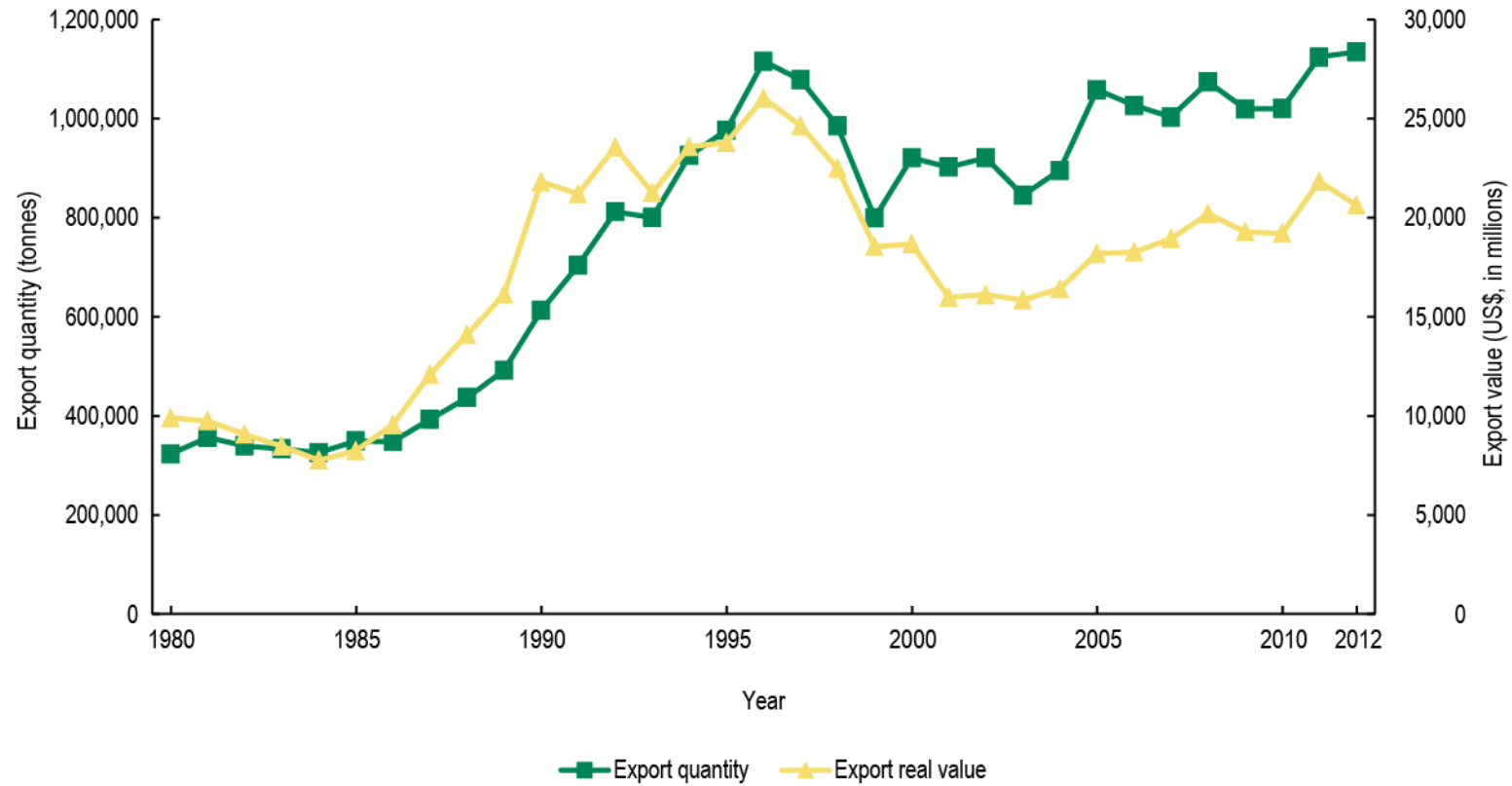
Trends in exports show marked differences when disaggregated by country income group (Figure 13.9). As a group, HICs are the leading cigarette exporters, accounting for 70% of global cigarette exports in 2012. At 30% in 2012, LMICs accounted for a much smaller share of global cigarette exports, although the absolute quantities they export have increased over time. Similar trends have been observed for cigarette imports, as shown in Figure 13.10.¹

When exports are disaggregated by WHO Region (Figure 13.11), the data indicate that European countries have long accounted for the largest share of global cigarette exports. In 2012, cigarettes from the European Region were 63.8% of all cigarette exports by quantity.¹ The European Region's share of global cigarette exports was even higher in terms of value (70.6% in 2012) because of the high price of European cigarettes.¹ In 2012, the five largest exporters in the European Region—Germany, the Netherlands, Poland, Romania, and Switzerland—accounted for 63.4% of European exports by value.

Historically, the Americas Region, led by the United States, was the second-largest exporting region in the world; however, the Americas Region's exports fell markedly after the late 1990s because of decreased export of cigarettes from the United States.¹ Export quantity from the Western Pacific Region has risen gradually over time and was the second-highest in the world by 2012. The African, Eastern Mediterranean, and South-East Asia Regions export very small quantities of cigarettes.

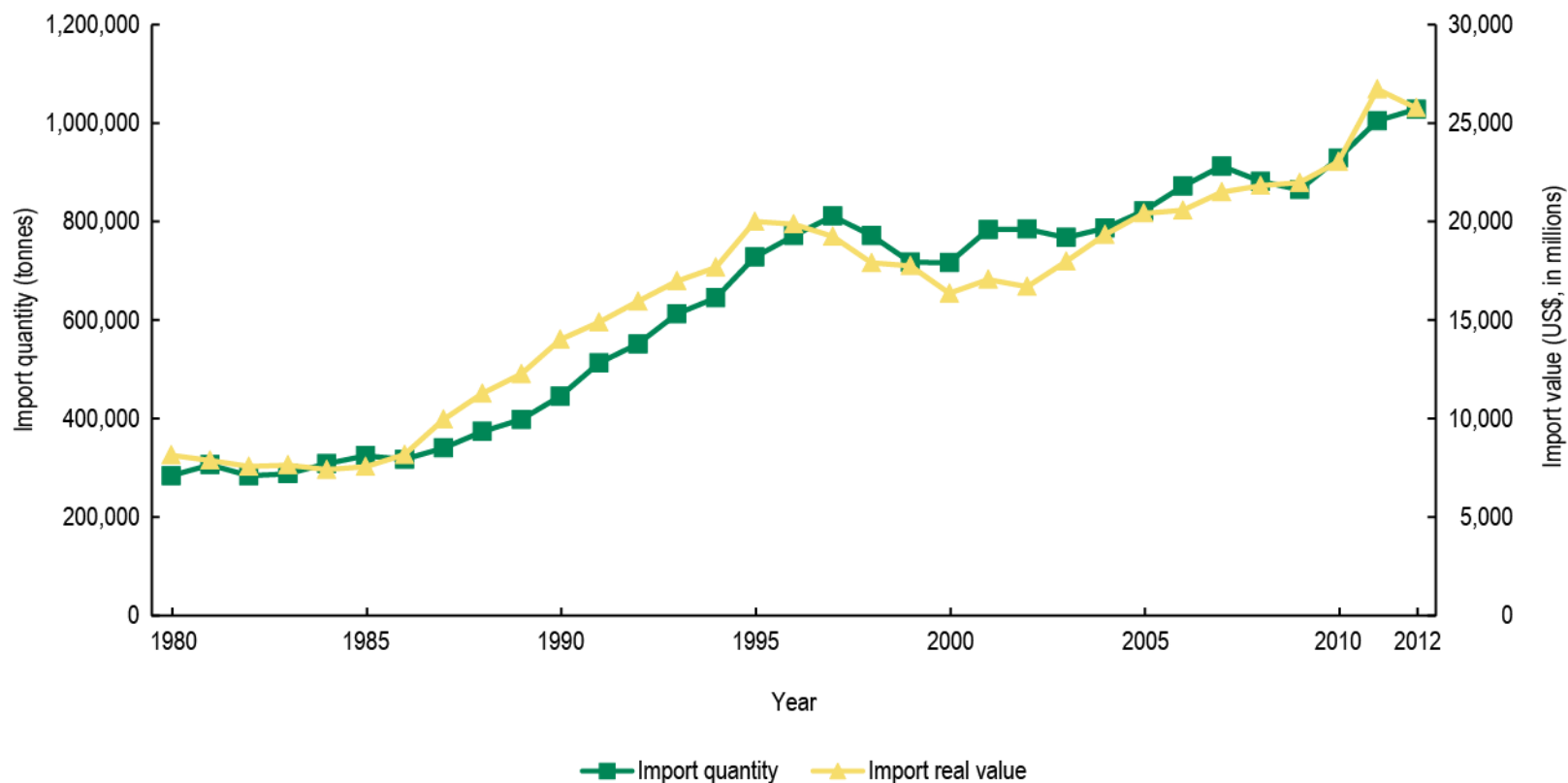
As with cigarette exports, the European Region has long accounted for the largest share of imports (47.1% in 2012) (Figure 13.12). Italy, the Netherlands, France, Germany, and Spain were the largest importing countries in the European Region.¹ The Western Pacific Region has been the second-largest importer since the late 1980s, accounting for 23.2% of imports in 2012; Japan, China, Singapore, Cambodia, and Viet Nam are the largest importing countries in this region. Singapore imports more than its domestic consumption because it is an important re-exporter of cigarettes.² The Eastern Mediterranean Region is now third in terms of global cigarette imports (19.9%); the United Arab Emirates, Saudi Arabia, Iraq, Lebanon, and Iran are the largest importers in this region.¹ Many Eastern Mediterranean Region countries have high smoking prevalence rates but produce few cigarettes. Only small quantities of cigarettes are imported by the African, Americas, and South-East Asia Regions.

Figure 13.7 Global Cigarette Exports, Quantity and Inflation-Adjusted Value, 1980–2012



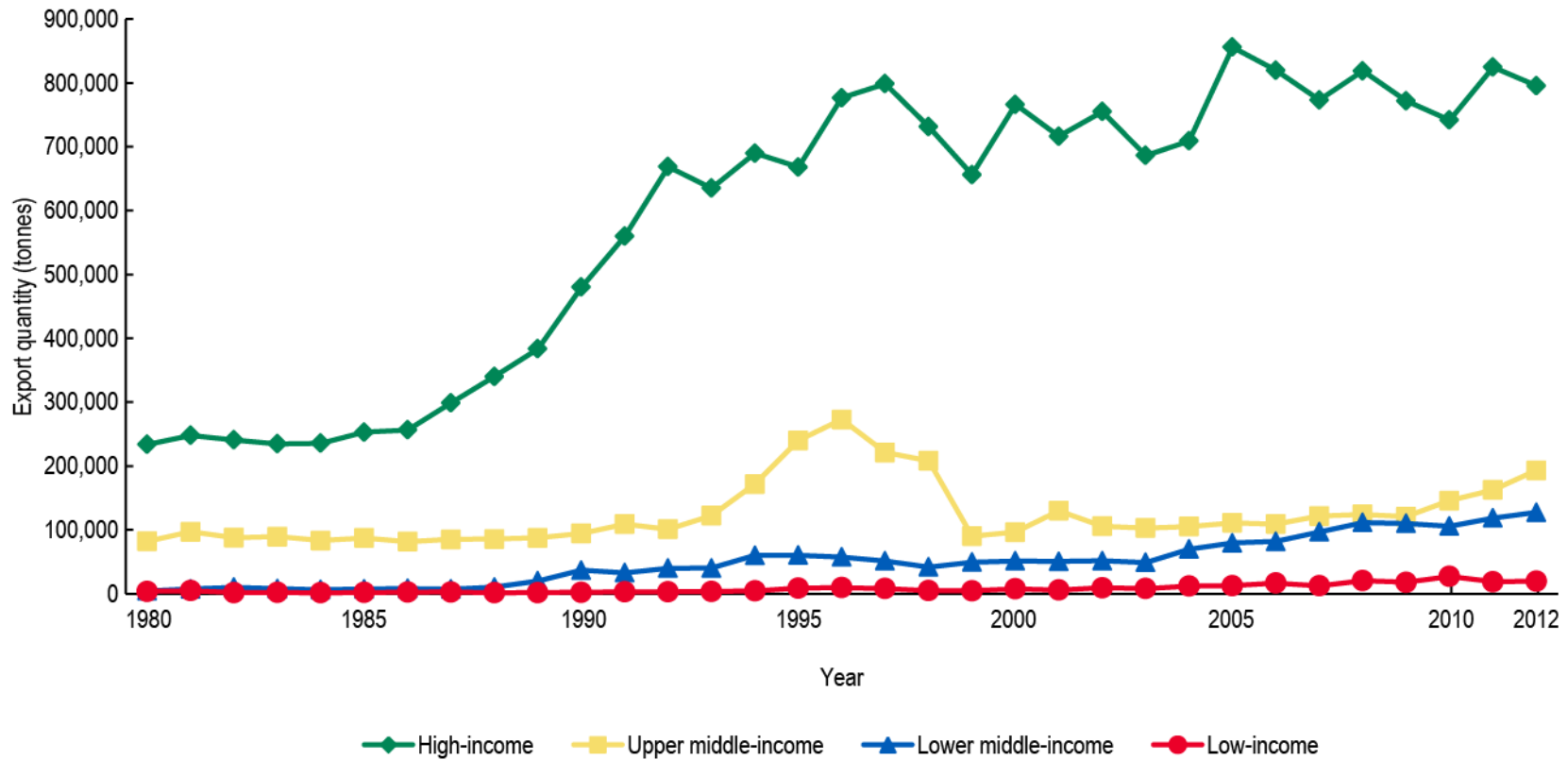
Note: Export value adjusted for inflation using 2012 U.S. dollars.
Source: FAOSTAT 1980–2012.¹

Figure 13.8 Global Cigarette Imports, Quantity and Inflation-Adjusted Value, 1980–2012



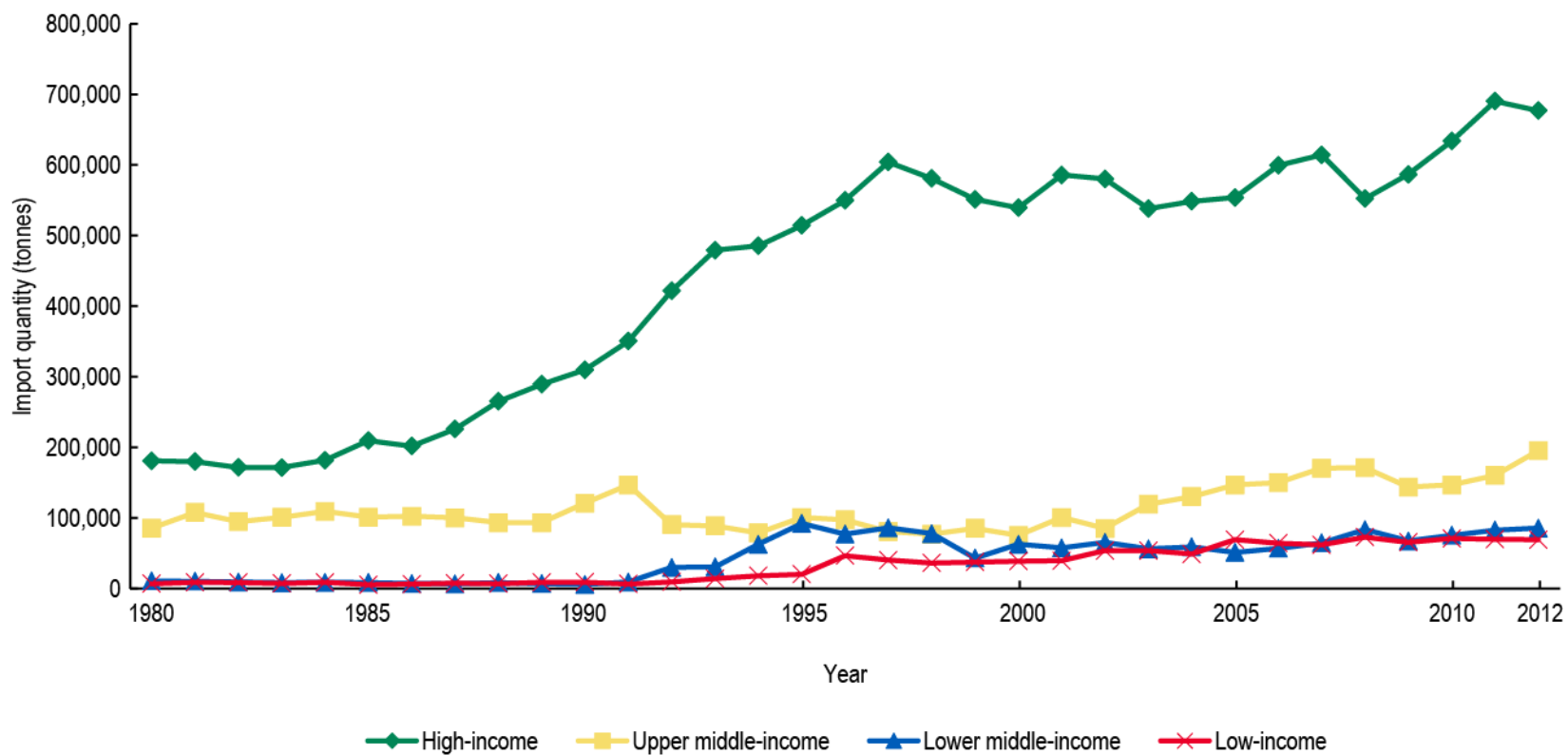
Note: Import value adjusted for inflation using 2012 U.S. dollars.
 Source: FAOSTAT 1980–2012.¹

Figure 13.9 Cigarette Export Quantity, by Country Income Group, 1980–2012



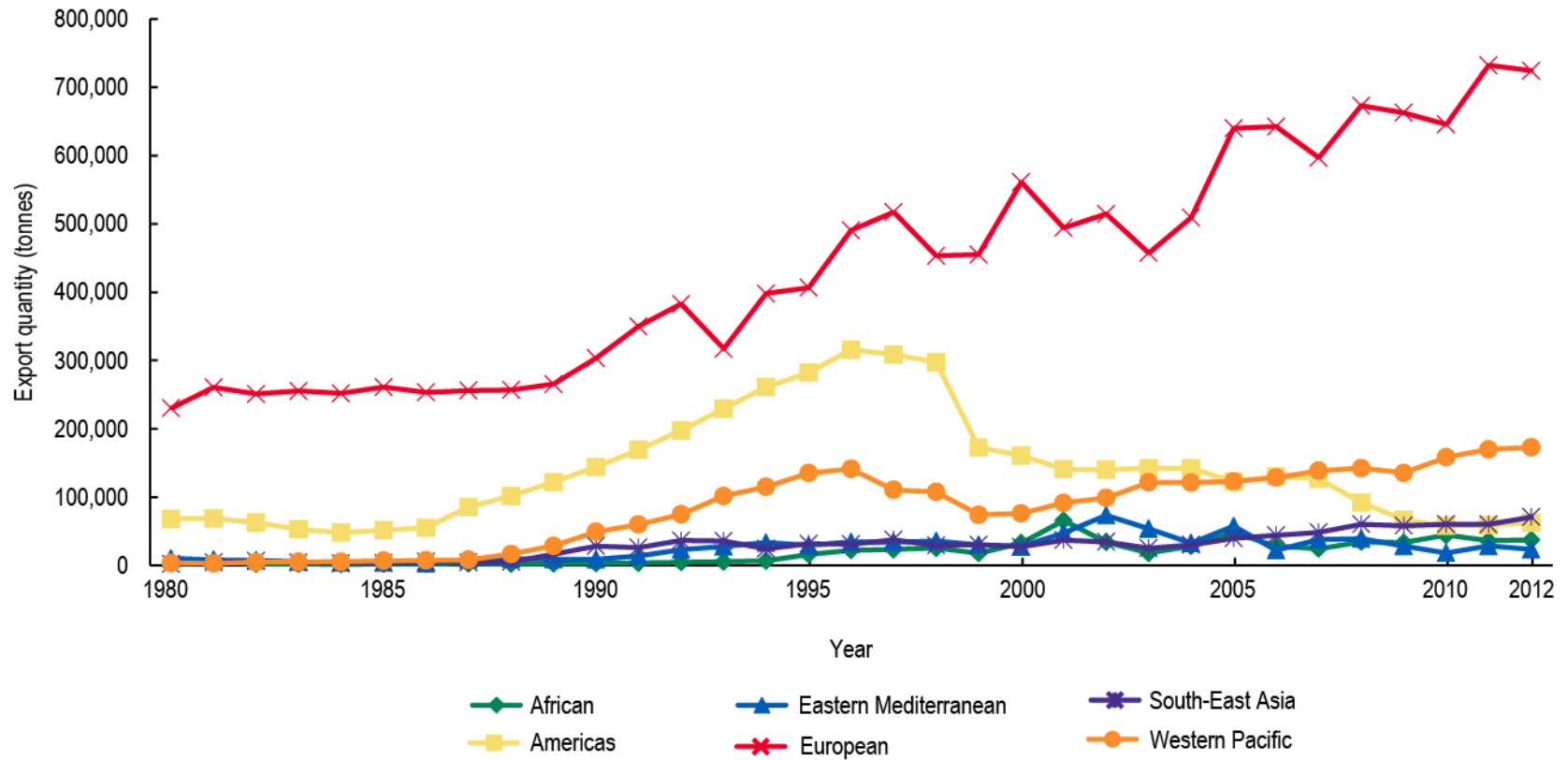
Note: Country income group classification based on World Bank Analytical Classifications for 2012.
Source: FAOSTAT 1980–2012.¹

Figure 13.10 Cigarette Import Quantity, by Country Income Group, 1980–2012



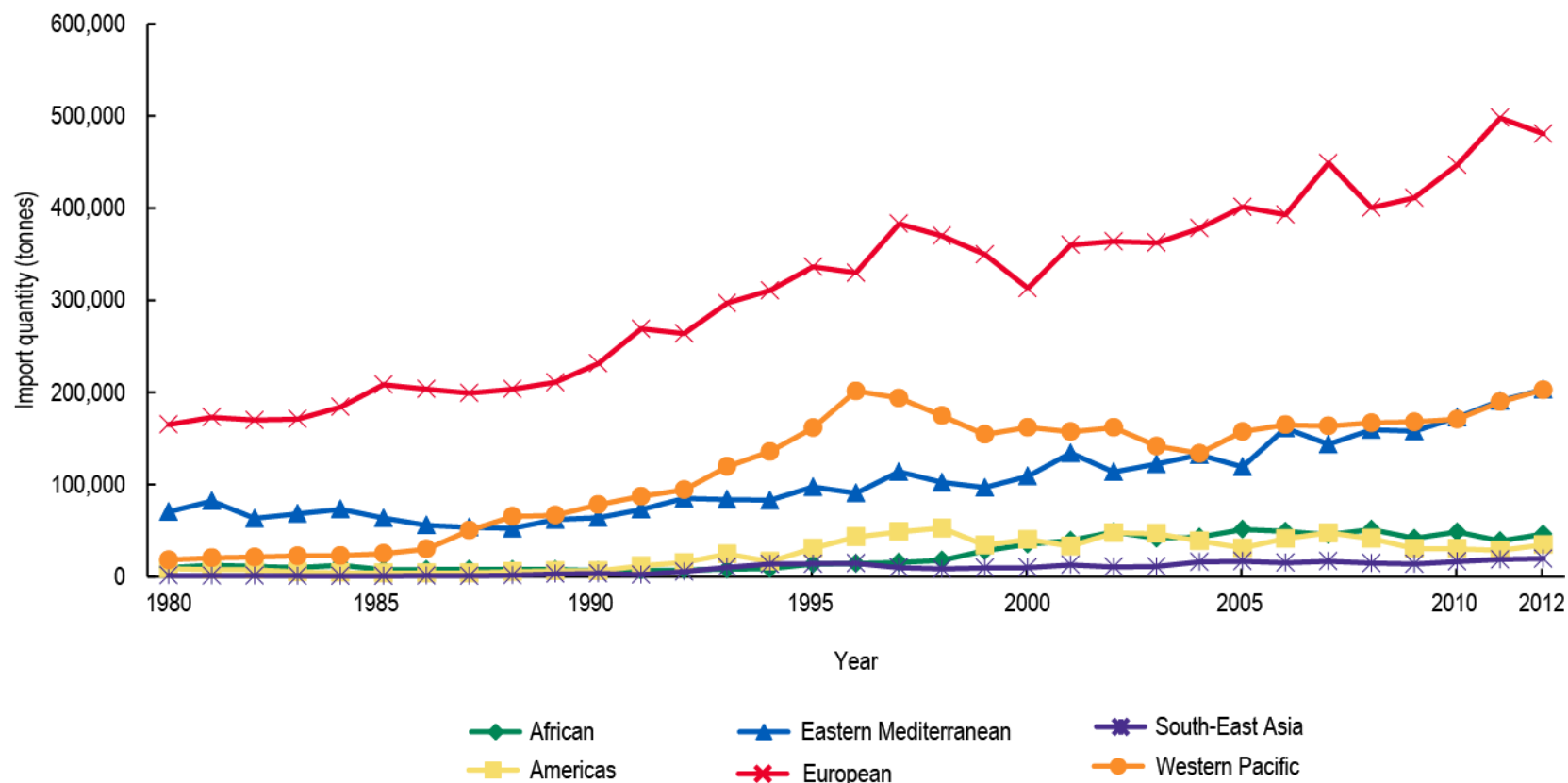
Note: Country income group classification based on World Bank Analytical Classifications for 2012.
 Source: FAOSTAT 1980–2012.¹

Figure 13.11 Cigarette Export Quantity, by WHO Region, 1980–2012



Source: FAOSTAT 1980–2012.¹

Figure 13.12 Cigarette Import Quantity, by WHO Region, 1980–2012



Source: FAOSTAT 2015.¹

Case Studies of Major Raw and Manufactured Cigarette Exporters and Importers

Tobacco Leaf

Brazil. Brazil is the largest tobacco leaf exporter in the world, accounting for 23.6% of global exports in 2012.¹ Brazil's tobacco leaf exports have been increasing steadily, giving it an increasingly strong position in the global market. By adopting state-of-the-art farming techniques and technologies during the past 30 years, Brazil has increased its production capacity and the quality of its leaf.³ Also contributing to the increase in exports from Brazil since 2000 were the drop in the value of Brazil's currency and the supply gap in the international market created by the sharp drop in exports from Zimbabwe.³

In 2012, Brazil's largest export partners were Belgium, China, the Russian Federation, the Netherlands, and the United States. Nearly half of Brazil's exports went to these five countries. The United States has been a major importer of Brazilian tobacco leaf for many years. China has recently become a major partner, importing US\$ 477.8 billion in Brazilian tobacco in 2012, compared with US\$ 101.8 billion in 2004.⁴ The growth in demand from China reflects the country's restructuring policy, which aims to improve the quality of cigarettes produced in China and increase its cigarette exports.

China. China is the largest tobacco grower in the world, accounting for more than 40% of global production in 2012.¹ However, China exports only 6.8% of the tobacco leaf it grows and imports the equivalent of 5.8% of its domestic production.¹ Thus, China's tobacco industry is self-contained; tobacco leaf grown in China is used mainly in the local manufacturing of cigarettes for domestic consumption. China is also the world's largest producer of cigarettes.⁵

The scale of the Chinese tobacco industry allows it to play an important role in global tobacco trade. In 2012 China was the third-largest exporter of tobacco leaf, accounting for 8.0% of world exports.¹ The increase in China's trade in tobacco leaf coincided with the decline of U.S. tobacco leaf exports and the economic crisis in Zimbabwe that began in 2001. Although China exported more tobacco leaf in 2012 than it imported (by 32,063 tonnes), its trade balance in value terms is negative, reflecting the difference in quality between tobacco leaf exports and imports.¹

China has the potential to become more important in the global trade in tobacco leaf and tobacco products. It may overshadow other large traders because of its high production capacity and cheap labor, and the low prices at which it is able to sell in the international market. In 2005, China began restructuring its cigarette industry to become internationally competitive.⁶ Similar efforts were undertaken in the country's agricultural sector.⁷ As discussed in chapter 12, these and other efforts suggest that China is poised to become a larger player in the global cigarette export market.

United States. The United States was the world's leading exporter of tobacco leaf for many decades, until losing this position to Brazil in the late 1990s. In 2012, the United States was the fourth-largest exporter in terms of quantity and was second in terms of value.¹ Since 2010, U.S. leaf exports have been falling and imports have been rising because lower priced, higher quality leaf imports are replacing domestically grown tobacco leaf in U.S. cigarette production. The major U.S. tobacco leaf import partners are Brazil, Turkey, Canada, India, and Malawi.⁴

Zimbabwe. In 2004, Zimbabwe was among the world's top five tobacco leaf exporters. By 2012, Zimbabwe had dropped to 6th place, accounting for only 5.0% of global leaf exports (compared with

9.0% in 2000) and 26.1% of African leaf exports (compared with 53.5% in 2000).¹ Zimbabwe's place in the international leaf market was significantly reduced by the land reform policy implemented in 2000, which led to a sharp devaluation of the Zimbabwean dollar, while the country's government was pursuing the application of an official fixed exchange rate, resulting in a misalignment between the official and actual international rates.³ This misalignment led to the development of a parallel unofficial rate. However, an exemption was given to tobacco crops, whereby a proportion of the products were exported under the fixed rate, and the other proportion were exported under the unofficial international exchange rate. The unofficial exchange rate was applied only to merchants and direct exporters. Farmers did not benefit from the exemption because they were prohibited from directly exporting their crops, making tobacco farming unprofitable. Consequently, Zimbabwe faced increased production costs (inputs bought from outside the country at international prices) and lower revenues (revenues at the local devalued currency).³ This situation led to a substantial decline in production capacity, with the quantity of tobacco leaf exports falling by 75% between 2001 and 2009 before rebounding.¹

The government of Zimbabwe gradually revised its policy to reduce the harm caused to the farming sector, eventually eliminating the fixed-exchange-rate policy.^{3,8} Additionally, many large landowners moved to Mozambique and other neighboring countries to grow tobacco. The consequences of these policies for Zimbabwe continue to be seen. In 2006, leaf production was about 45,000 tonnes, compared with production capacity of more than 200,000 tonnes before the land reform policy of 2000.¹ As of 2009, leaf production had increased to more than 85,000 tonnes; estimates for 2012 were approximately 115,000 tonnes.¹

Cigarettes

Germany. Germany is the world's largest exporter of cigarettes; in 2012, Germany exported 170,714 tonnes of cigarettes, worth US\$ 3.9 billion, or 19.7% of global export value.¹ Germany is also an important exporter of tobacco products manufactured by several MTCs, including Philip Morris International (PMI), British American Tobacco (BAT), Reemtsma (a subsidiary of Imperial Brands PLC), and Japan Tobacco International. In 2012, about 80% of the country's national production was exported.² Germany's 10 top export partners in 2012 included European Union (EU) countries (53% of their total exports), Japan, Saudi Arabia, and on a smaller scale, the United Arab Emirates; the former Soviet Union was also an important export trade partner before its dissolution in the early 1990s. In 2012, Germany's 10 top import partners were all EU countries, accounting for 93% of Germany's total cigarette imports: Croatia, Czech Republic, France, Lithuania, Luxembourg, the Netherlands, Poland, Romania, Switzerland, and the United Kingdom of Great Britain and Northern Ireland.⁴

The Netherlands. The Netherlands is the second-leading exporter of cigarettes both in terms of value and quantity, accounting for 15.2% of the value of cigarettes exported globally in 2012 and exporting nearly 111,650 tonnes in that year.¹ The Netherlands is a key supplier for several major markets; it is also an important transit country for large shipments that are broken down for further distribution.² The Netherlands' importance to international tobacco exporting and distribution helps to explain the large gap between the country's production capacity and local consumption. In 2013 the production and import of cigarettes—74 billion and 26.96 billion pieces, respectively—far outpaced the domestic tax-paid consumption of cigarettes, which was estimated at approximately 10.69 billion pieces.²

Until 2014, the Netherlands was a major production base for PMI, but the PMI facility in the Netherlands discontinued production of cigarettes in 2014, and it is now producing only semi-

manufactured goods to be used in cigarette production in other PMI factories.⁹ BAT was also an important producer but closed its plant in 2008, moving production to Poland and Germany. In 2012, 60% of the Netherlands' cigarette exports went to EU destinations, led by Italy, France, Belgium, Germany, Spain, and the United Kingdom.⁴

United States. The United States is the world's 13th-largest cigarette exporter in terms of quantity, accounting for 1.9% of all cigarettes exported globally in 2012, and the world's 14th-largest exporter in terms of value.¹ The cigarette market is shrinking in the United States, as in many countries in Western Europe, with falling consumption, production, and exports.² U.S. production and exports increased steadily for many years, peaking in the mid-1990s, and then declining. In the mid-1990s, U.S. cigarette exports accounted for 33.9% of the value of global cigarette exports; by 2005 the U.S. share had decreased to 8.2%, and by 2012 the U.S. share had decreased to 1.9%.¹ Much of the decrease can be explained by cigarette companies' investments in production facilities in countries that were once major importers of cigarettes produced in the United States.² The major destinations of U.S. exports include Japan, Mexico, Canada, the Russian Federation, and Honduras; together, these countries imported 88.8% of U.S. cigarette exports (by value) in 2012.⁴

Japan. Japan is the world's largest cigarette importer, accounting for 8.0% of the quantity of global imports in 2012.¹ In 2014, the country consumed 179.3 billion cigarettes, produced 119 billion, imported 73.3 billion, and exported 10.7 billion.² Japan imports most (82.5%) of its cigarettes from the Netherlands, the United States, Switzerland, and Germany.⁴

Price of Tobacco Products

Tobacco Leaf

The United Nations Conference on Trade and Development (UNCTAD) compiles a variety of data, including price instability indexes and trends in the free market prices of selected commodities, including unmanufactured tobacco.¹⁰ The price instability index for tobacco is the percentage deviation of the import price of leaf from its exponential trend level for a specific period. Because the United States is a major leaf importer, this global index was compiled based on the U.S. import unit value of unmanufactured tobacco using available data. The price instability index for 2003–2012 was 4.7, down from 7.6 for 1993–2002 and 6.9 for 1983–1992, indicating that the price for tobacco leaf has stabilized over time. Moreover, for 2003–2012, the index indicated that tobacco leaf prices were more stable than prices for any other commodity. By comparison, the price instability index for coffee was 13.2; for gold, 6.1; and for agricultural raw materials (e.g., cotton, jute, wool), 9.9. The relative stability of tobacco leaf prices is likely one of the reasons that farmers are attracted to growing tobacco.¹⁰

Figure 13.13 shows trends in the price per kg of tobacco leaf exports for HICs, for LMICs, and at the global level between 1980 and 2012. Leaf prices were obtained by dividing the value of leaf exports by the quantity exported by a country at a given time. As with cigarette export prices, the price of tobacco leaf exported by HICs is well above that exported by LMICs, but HICs and LMICs experienced similar and largely downward trends through the early 2000's before beginning to rise slightly.

Cigarettes

The export price of cigarettes has varied for different countries and across time. Although a global measure is not available for the export price of cigarettes, an estimate can be obtained by dividing the

value of a country's cigarette exports by the quantity of its exports at a specific time. Figure 13.14 shows the trend in the price of cigarette exports, globally and for HICs and LMICs, between 1980 and 2012. Cigarettes exported by HICs are more expensive than those exported by LMICs, probably reflecting the higher production costs and higher quality of cigarettes produced in HICs. Overall, real prices have generally been decreasing since 1990, particularly in HICs, but they have risen somewhat in LMICs since 2001.

Trade Liberalization and Tobacco Consumption

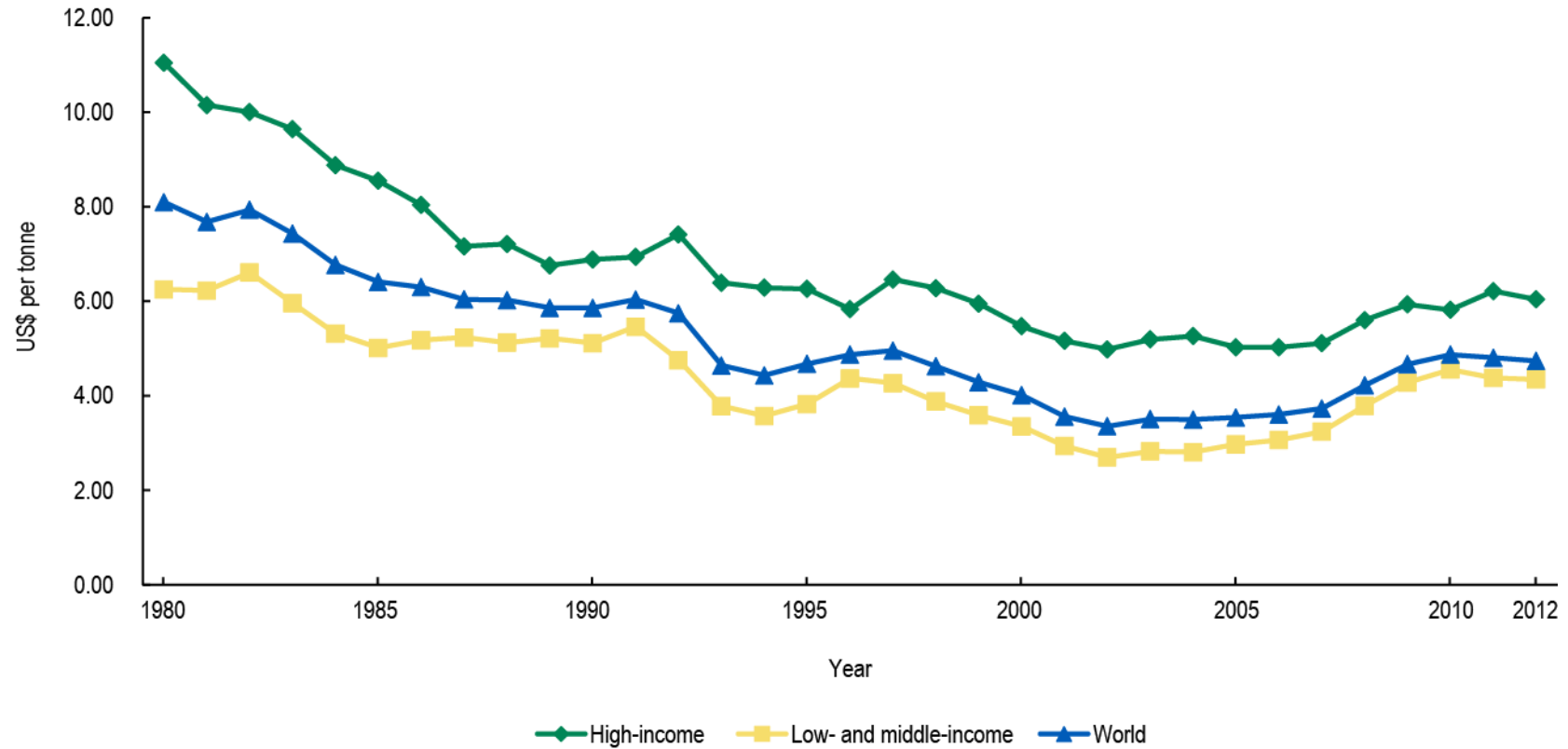
The growth of trade in tobacco leaf and tobacco products can be partly explained by the increasing number of global, regional, and bilateral trade agreements that have been implemented during the past few decades.¹¹ The World Trade Organization (WTO) agreements, along with major regional and bilateral trade agreements, have reduced trade barriers for many goods and services, including tobacco leaf and tobacco products, and have expanded the reach of MTCs by allowing them to increase their presence in LMICs.¹² Similar agreements on investments, particularly at the regional and bilateral levels (as discussed in chapter 12), have also opened various markets and increased investment in tobacco production.¹³

The General Agreement on Tariffs and Trade was the first major global trade agreement adopted after World War II, originally negotiated by 23 countries and officially implemented in January 1948.¹⁴ Over time and through subsequent rounds of negotiations, the agreement grew to cover an increasing share of global trade, with new countries joining, and a larger number of products covered. The Marrakesh Agreement of 1994 led to the creation of the WTO on January 1, 1995.¹⁵ As of July 2016, 164 countries participated in the WTO.¹⁶ Members commit themselves to abide by a range of agreements, including GATT 1994 and other agreements that govern trade in goods, such as the General Agreement on Trade in Services, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and the Understanding on Rules and Procedures Governing the Settlement of Disputes. The objectives of the WTO include trade liberalization through addressing tariff and non-tariff barriers to trade.¹⁷

WTO rules permit the adoption of Regional Trade Agreements (RTAs) by member states, and hundreds of RTAs have been implemented during the past few decades. As of July 1, 2016, 267 WTO-approved RTAs are in force.¹⁶ Estimates indicate that 60% of all international trade occurs through RTAs, and these agreements are rapidly becoming the primary means of trade liberalization worldwide.¹⁸ RTAs liberalize trade through geographical proximity, expand areas for free trade, and have significantly helped reduce barriers to trade worldwide in tobacco leaf and tobacco products by opening up previously protected markets. Key regional trade structures include the Association of Southeast Asian Nations (ASEAN), the EU, the North American Free Trade Agreement, the Southern African Development Community, the Economic Community of West African States, the Common Market for Eastern and Southern Africa, the African Growth Opportunity Act, the Mercado Común del Sur (Mercosur), and the Caribbean Community. As of this writing, another major regional agreement, the Trans-Pacific Partnership (TPP), is in the process of being ratified.

The ongoing process of trade liberalization continues to raise questions about the extent to which further liberalization might stimulate tobacco consumption, as the opening of previously closed markets in LMICs has been shown to do. The following section reviews the literature on the relationship between trade liberalization and tobacco consumption.

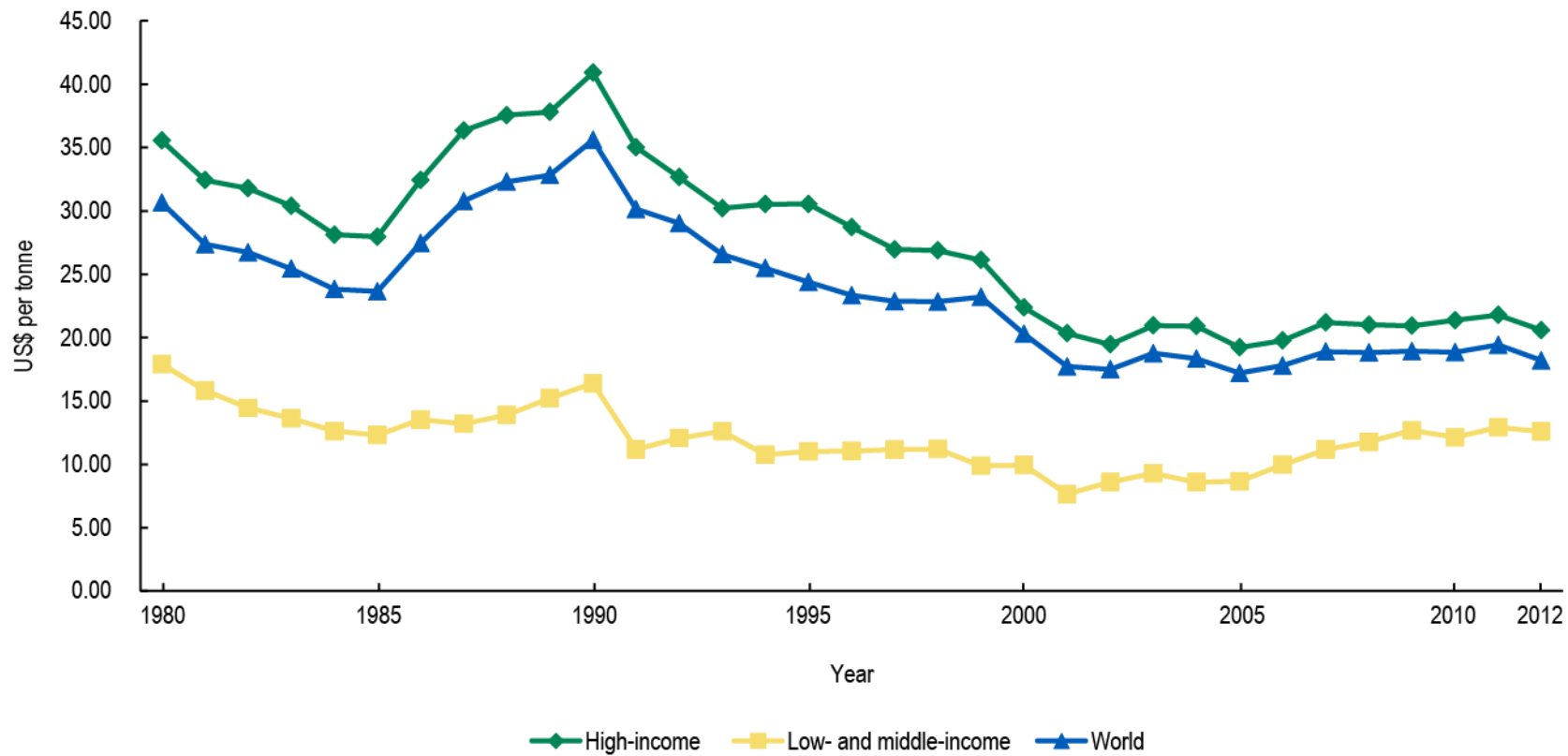
Figure 13.13 Real Price of Tobacco Leaf Exports for High-Income Countries and Low- and Middle-Income Countries and at the Global Level, 1980–2012



Note: Country income group classification based on World Bank Analytical Classifications for 2012.

Source: FAOSTAT 1980–2012.¹

Figure 13.14 Real Price of Cigarette Exports for High-Income Countries and Low- and Middle-Income Countries and at the Global Level, 1980–2012



Note: Country income group classification based on World Bank Analytical Classifications for 2012.
 Source: FAOSTAT 1980–2012.¹

Literature Review

As described in a literature review by Bettcher and colleagues,¹² trade liberalization poses clear risks to tobacco control. Several studies show that trade liberalization may increase competition in the tobacco market, leading to lower prices, increased marketing of tobacco products, and brand proliferation, thus stimulating both demand for and consumption of tobacco products. Additionally, agreements governing the implementation of non-tariff barriers to trade may make some types of domestic regulation of tobacco unlawful, or may impede domestic regulation by creating uncertainty and other deterrents to regulatory action.¹⁹ As described below, several studies have looked quantitatively at the impact of trade liberalization on tobacco consumption, and all have concluded that the expansion of trade in tobacco products through reduced trade barriers has led to an increase in cigarette consumption.

Section 301 of the 1974 Trade Act and its subsequent amendments are the principal statutory authority under which the United States can impose trade sanctions against foreign countries that use unjustifiable, unreasonable, or discriminatory practices to limit access to their markets by U.S. companies. Chaloupka and Laixuthai²⁰ examined the impact on cigarette consumption of actions taken in the 1980s by the United States under Section 301. They also estimated the market share of U.S. cigarettes in four Asian countries from 1970 to 1991 and compared these estimates to similar data from six Asian countries that historically limited market access to foreign tobacco firms, including U.S. firms. These authors found that opening formerly closed markets in countries such as Thailand, Japan, the Republic of Korea, and China to U.S. cigarettes increased per capita consumption by almost 10% in those countries (in 1991) and substantially increased the market share of U.S. cigarettes. The authors suggested that the increase in consumption after opening the markets could have resulted from lower prices and/or the increased marketing of tobacco products due to increased competition in cigarette markets.²⁰

Taylor and colleagues¹¹ explored the impact of trade liberalization on tobacco consumption. This study used annual data on import penetration (total imports as a percentage of GDP) as a measure of trade openness for 42 countries from 1970 to 1995. These authors found that trade openness significantly increased cigarette consumption in LMICs but not in HICs. Trade liberalization could have had no significant impact on consumption in HICs because openness is greater in this group of countries and increasingly open trade has a diminishing marginal effect on consumption. Conversely, lower income countries are expected to face a larger marginal effect from trade openness.

Using a similar methodology, Bettcher and colleagues¹² estimated the impact of trade liberalization on cigarette consumption in more than 80 countries from 1970 to 1997. Three measures of trade openness were used: (1) import penetration, (2) a dummy variable estimating the degree of openness to incoming foreign direct investment (FDI), and (3) exchange-rate distortions, or the black market premium. The inward FDI measure did not yield significant results, but estimates showed a significant relationship between import penetration and cigarette consumption, particularly in low- and lower middle-income countries. The black market premium coefficients were negative and significant, implying that with fewer exchange-rate distortions, more investments were likely to enter a market, leading to higher consumption. The authors concluded that “given the probable link between openness and the consumption of cigarettes and the array of effective tobacco-control policies that exists (such as price increases, complete advertising and promotion bans, clean indoor-air laws, health warnings and counter-advertising), strong tobacco-control policies need to be implemented as globalization takes its course.”^{12,p.53}

Sarntisart²¹ explored the potential impact of lowering tariff rates pursuant to the 2004 ASEAN Free Trade Agreement (FTA). Using 2003 as a base year, he looked at changes in consumption, government tobacco revenue, and economic welfare in Thailand following a tariff reduction on imported cigarettes (from 22.5% to 5.0% of cost, insurance, and freight value) under the ASEAN FTA. The government owns the Thai Tobacco Monopoly and controls the prices of cigarettes; the structure of prices is determined by several factors, including the factory price, tariff for imported cigarettes, excise tax rate, health tax rate, local tax rate, profit margin, and value-added tax. Sarntisart predicted that if the Thai government decided to bear the decreased revenues caused by the reduced tariff, controlled prices would remain unchanged, consumption and economic welfare would not be affected, and tobacco industry profits, including importers' profits, would increase. However, if the government decided not to bear the costs of the reduced tariff, cigarette retail prices would decrease, consumption would increase, and importers' profits would increase. Government revenues would still decrease but to a lesser extent. Cigarette consumption would be expected to increase more in the urban areas and among middle-aged and child smokers. Using optimistic assumptions, the tariff reduction would lead to an additional 134 tobacco deaths in 2023, costing Thailand's economy 82 million Baht (US\$ 2.1 million) in future income in 2023 and each year after. This study also noted that importers and the Thai Tobacco Monopoly might decide to use their additional profits resulting from the tariff reduction for political lobbying and other activities that could undermine national tobacco control measures.²¹

Econometric Analysis: Impact of Trade Liberalization on Cigarette Consumption

Following the approach used by Taylor and colleagues¹¹ and Bettcher and colleagues,¹² this section provides new estimates on the impact of trade liberalization on cigarette consumption. Two sets of data were used for the per capita consumption figures: (1) consumption data compiled and updated by the American Cancer Society (ACS) for the *Tobacco Atlas 2012*,²² and (2) a combination of consumption data from the U.S. Department of Agriculture (USDA)²³ and ERC Group.²⁴ The ACS data included figures on consumption in 125 countries between 1970 and 2003, and the USDA/ERC Group data included consumption between 1990 and 2004 in 141 countries.

The econometric estimation used three explanatory variables: (1) per capita real GDP,²⁵ (2) real price, based on a Marlboro cigarette pack (20 cigarettes) from a mid-priced store, in U.S. dollars at constant prices for 1996 (data from capital cities),²⁴ and (3) various measures of trade openness including import penetration (total imports as a share of GDP), trade as a share of GDP, and FDI net inflows as a share of GDP for one set of analyses, and taxes on international trade as a share of revenue for another set. Data for these measures of trade openness came from the World Bank.²⁵

A simple log-log functional form was used with a generalized least-squares estimation to correct for potential heteroscedasticity. The estimations were made with and without the real price variable. The price data were available only from 1990 to 2004, so when the price variable was included in the models using ACS data, the years from 1970 to 1989 were lost. The models were also estimated separately for low-income countries, using the 2006 World Bank Analytical Classifications.²⁶

Tables 13.1–13.4 summarize the results of this analysis. Increased import penetration was found to be associated with greater cigarette consumption, and this effect was greater in low-income countries than middle- and high-income countries. Cigarette consumption increased with greater reductions in trade barriers and increases in imports of goods and services.

The results indicated that consumption decreased as taxes on international trade increased as a percentage of revenue, thus reducing the flow in traded products. Taxes on international trade can be viewed as a trade distortion measure that reduces trade openness. Again, this effect was greater in low-income countries than middle- and high-income countries.

Increasing income seems to encourage consumption, with the impact being higher among low-income countries than among middle- and high-income countries. The price estimates are generally insignificant, most likely reflecting the poor quality of the limited price data.

Table 13.1 ACS Data Using Trade Openness as a Share of GDP

Years of data, by group	Number of observations	$\ln GDP_{i,t}$ (SD)	$\ln (M/GDP)_{i,t}$ (SD)	$\ln P_{i,t}$ (SD)	Constant (SD)
All data					
1970–2003	2,686	0.45 (0.005)	0.076 (0.01)	—	3.04 (0.06)
1990–2003	810	0.39 (0.01)	0.19 (0.02)	–0.1 (0.02)	3.09 (0.10)
Low-income group					
1970–2003	623	0.62 (0.02)	0.26 (0.03)	—	0.9 (0.12)
1990–2003	103	0.44 (0.16)	0.36 (0.08)	–0.012* (0.03)	1.71* (0.92)

Key: \ln = natural logarithm, GDP = gross domestic product, SD = standard deviation, M = measure of trade openness, P = real price, i = country code, and t = year.

Note: All coefficients are statistically significant at $p=0.01$ except for those followed by an asterisk (*). Country income group classification based on World Bank Analytical Classifications for 2006.

Source: Data from Eriksen et al. 2012.²²

Table 13.2 ACS Data Using Taxes on International Trade as a Share of Revenue

Years of data, by group	Number of observations	$\ln GDP_{i,t}$ (SD)	$\ln (tax/trade/revenue)_{i,t}$ (SD)	$\ln P_{i,t}$ (SD)	Constant (SD)
All data					
1970–2003	583	0.39 (0.01)	–0.05 (0.01)	—	3.82 (0.08)
1990–2003	368	0.38 (0.01)	–0.04 (0.01)	–0.03 (0.01)	3.81 (0.10)
Low-income group					
1970–2003	118	0.62 (0.05)	–0.3 (0.04)	—	2.51 (0.39)
1990–2003	130	1.19 (0.25)	–0.37 (0.09)	0.15* (0.09)	–1.24* (1.06)

Key: \ln = natural logarithm, GDP = gross domestic product, SD = standard deviation, P = real price, i = country code, and t = year.

Note: All coefficients are statistically significant at $p=0.01$ except for those followed by an asterisk (*). Country income group classification based on World Bank Analytical Classifications for 2006.

Source: Data from Eriksen et al. 2012.²²

Table 13.3 USDA/ERC Group Data Using Trade Openness as a Share of GDP

Years of data, by group	Number of observations	$\ln GDP_{i,t}$ (SD)	$\ln (M/GDP)_{i,t}$ (SD)	$\ln P_{i,t}$ (SD)	Constant (SD)
All data					
1990–2004	1,918	0.09 (0.001)	0.52 (0.02)	—	4.22 (0.06)
1990–2004	982	0.09 (0.01)	0.29 (0.02)	0.17 (0.02)	5.13 (0.10)
Low-income group					
1990–2004	573	0.03 (0.002)	0.71 (0.05)	—	3.03 (0.15)
1990–2004	139	0.43 (0.1)	0.5 (0.08)	0.1 (0.03)	1.33 (0.52)

Key: \ln = natural logarithm, GDP = gross domestic product, SD = standard deviation, M = measure of trade openness, P = real price, i = country code, and t = year.

Note: All coefficients are statistically significant at $p=0.01$. Country income group classification based on World Bank Analytical Classifications for 2006.

Sources: U.S. Department of Agriculture 2005.²³ ERC Group 2005.²⁴

Table 13.4 USDA/ERC Group Data Using Taxes on International Trade as a Share of Revenue

Years of data, by group	Number of observations	$\ln GDP_{i,t}$ (SD)	$\ln(\text{tax/trade/revenue})_{i,t}$ (SD)	$\ln P_{i,t}$ (SD)	Constant (SD)
All data					
1990–2004	858	0.10 (0.01)	-0.14 (0.01)	—	6.31 (0.07)
1990–2004	478	0.01* (0.01)	-0.12 (0.01)	0.18 (0.01)	6.87 (0.10)
Low-income group					
1990–2004	219	0.04 (0.01)	-0.47 (0.03)	—	6.90 (0.13)
1990–2004	75	0.78 (0.11)	-0.23 (0.06)	0.11 (0.06)	1.29 (0.74)

Key: \ln = natural logarithm, GDP = gross domestic product, SD = standard deviation, P = real price, i = country code, and t = year.

Note: All coefficients are statistically significant at $p=0.01$ except for those followed by an asterisk (*). Country income group classification based on World Bank Analytical Classifications for 2006.

Sources: U.S. Department of Agriculture 2005.²³ ERC Group 2005.²⁴

The impact of trade liberalization on cigarette consumption has been more significant in low-income countries because they generally have weaker tobacco control policies than HICs. Weak policies provide opportunities for the tobacco industry to engage in aggressive marketing practices—for example, through low prices and increased tobacco marketing—thereby encouraging consumption. This combination of policies and industry practices could explain the greater impact of trade liberalization in low-income countries than in HICs.

Trade Agreements and Tobacco Control

International trade and investment agreements have been used by the tobacco industry and sympathetic countries to challenge or threaten tobacco control measures. Such challenges can be made through a variety of mechanisms, including by members bringing claims under WTO law, under regional or bilateral free trade agreements, or investors bringing claims under international investment agreements (as described in chapter 12). According to the principles of the most-favored-nation treatment, WTO members are required to give other WTO members the same advantages in the import or export of like products in terms of customs duties and charges, rules, internal taxes or charges, and internal sales laws and regulations. Under Article XX, which describes General Exceptions, GATT authorizes members to

introduce measures to protect the health and life of humans, animals, and plants. However, these measures must not be applied “in a manner [that] constitutes a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade.”^{14,p.37}

Since 2001 a number of WTO disputes have involved tobacco control measures.²⁷ In *Dominican Republic – Importation and Sale of Cigarettes*,²⁸ tax stamp measures intended to address illicit trade in tobacco products were found to be implemented in a way that violated GATT 1994. In *Thailand – Customs and Fiscal Measures on Cigarettes from the Philippines*,²⁹ a WTO panel found that Thailand violated customs valuation rules and that specific tobacco tax measures were discriminatory under GATT. In *United States – Measures Affecting the Production and Sale of Clove Cigarettes*,³⁰ the WTO Appellate Body found that the ban on flavored cigarettes (with an exception for menthol) called for in the U.S. Family Smoking Prevention and Tobacco Control Act of 2009 violated Article 2.1 of the Agreement on Technical Barriers to Trade (TBT Agreement),³¹ requiring that imported products “shall be accorded treatment no less favourable” than domestic products.²⁷ In 2011, Cuba, the Dominican Republic, Honduras, and Indonesia challenged Australia’s plain packaging law under the TBT Agreement and TRIPS.³² Tobacco control laws may also be challenged under regional and bilateral free trade agreements, which have become more common since 2001. For example, Philip Morris (Norway) unsuccessfully challenged Norway’s bans of tobacco product point-of-sale displays under the European Economic Area agreement.³³ These cases and the legal issues behind them are described in more detail in the WHO report *Confronting the Tobacco Epidemic in a New Era of Trade and Investment Liberalization*.²⁷

Box 13.1: Public Health Implications of Tobacco-Related Trade Disputes

As described below, drawing on discussions from previous reports of the U.S. Surgeon General, two trade disputes (*Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes*^{34,¶81} and *United States – Measures Affecting the Production and Sale of Clove Cigarettes*^{30,¶95}) have suggested that governments can adopt strong tobacco control policies if these policies are applied equally to domestic and foreign products. The 2000 Surgeon General’s report *Reducing Tobacco Use*³⁵ stated:

[A trade dispute] was initiated by the U.S. Trade Representative in response to petitioning by the U.S. Cigarette Export Association in April 1989 over Thailand’s virtual ban on the import of cigarettes and complete ban on cigarette advertising and other promotional activities in that country. The complaint cited various restrictions on the importation and sale of cigarettes and referred to discriminatory duties and taxes on cigarettes imports. . . . After no agreement [with Thailand] could be reached, the U.S. Trade Representative consented to submit the complaint to the GATT dispute resolution process.

The panel created by GATT investigated the U.S. complaint that the import barriers and advertising restrictions were a violation of the international agreement’s principles. In October 1990, the GATT Council sustained the panel’s recommendations and ruled that the ban on imports was a violation of the GATT treaty. However, the council upheld the high Thai cigarette excise taxes (applied to both domestic and foreign cigarettes) and the right of the government to restrict the overall supply of cigarettes. Regarding the Thai advertising ban, the council noted that GATT allows member nations to use various policies to protect public health if the policies are applied to both domestic and foreign products. A cigarette advertising ban that made it difficult for new foreign firms to

compete with existing domestic firms was ruled justifiable under the treaty, because allowing advertising could stimulate the demand for cigarettes, particularly among youth. . . . This decision was based on Article XX of GATT, which states that: “Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries . . . nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting parties of measures . . . necessary to protect human . . . health” The GATT ruling led to an agreement in November 1990 between the United States and Thailand that allowed the importation of U.S. cigarettes into Thailand.^{35,p.315-16 (certain internal citations omitted)}

The 2014 Surgeon General’s report *The Health Consequences of Smoking—50 Years of Progress*³⁶ stated:

Since [the WHO] FCTC came into force in 2005, seven tobacco control policies adopted by [WHO] FCTC Parties and one [WHO] FCTC-consistent tobacco control policy adopted by a non-Party (United States) have been the subject of discussions within WTO committees. . . . Although some of these cases do not have wide-ranging implications for tobacco control, some may prove to be significant, including the *U.S. Clove Cigarettes* case, in which the Appellate Body of WTO held that parts of the Tobacco Control Act are inconsistent with WTO obligations. . . . In this case, Indonesia requested a WTO dispute resolution panel in June 2010 based on the U.S. ban on characterizing flavors (other than tobacco or menthol) in cigarettes included in the Tobacco Control Act. Indonesia argued to the panel that the law was discriminatory because imported clove cigarettes were banned, although domestic menthol cigarettes are allowed to remain in the market. Alternatively, the United States argued that excluding menthol from the cigarette flavor ban was justified under WTO obligations because banning menthol cigarettes (which are regularly smoked by tens of millions of [U.S.] adults) presented different public health issues and potential consequences compared to banning other flavored cigarettes (which were used regularly by very few [U.S.] adults.) The WTO found that the distinctions on what flavors were banned in the United States were based upon health considerations; however, the WTO appellate body was not persuaded that there was a legitimate regulatory reason to ban clove cigarettes but not menthol cigarettes and held that the ban on clove cigarettes was inconsistent with the WTO obligation to treat imported products no less favorably than similar domestic products.^{36,p.825-26 (certain internal citations omitted)}

Today, much activity is focused on negotiation of large regional free trade agreements, such as the Regional Comprehensive Economic Partnership and the Transatlantic Trade and Investment Partnership. These agreements offer nations the possibility of preferential access to a number of markets through one agreement, thereby improving the competitiveness of their exports to those markets. Negotiation of regional FTAs has raised a number of issues that may impact tobacco control, including further reduction of customs duties on tobacco products, expansion of trademark rights, expansion of investment protection provisions, and a new focus on regulatory harmonization. Specific concerns about the tobacco industry’s use of investment provisions to challenge legitimate tobacco control measures led to inclusion in the TPP, for the first time in any trade agreement, of a provision permitting parties to preclude investment claims concerning tobacco control measures.³⁷

Summary

Trade in tobacco leaf accounts for a very small proportion (<1%) of global agricultural imports and exports. A few countries, however, rely heavily on export earnings from tobacco leaf; in 2012, these

included Zimbabwe, Malawi, Macedonia, Bangladesh, Zambia, and Tanzania. A small number of countries dominate the global export of tobacco leaf—five countries exported more than half of the world’s tobacco leaf in 2012. The import of tobacco leaf is also dominated by a small number of countries; five countries together accounted for nearly 40% of global tobacco leaf imports in 2012.

The value and quantity of global tobacco leaf exports and imports have trended upward over the last 30 years. Since the late 1990s, upper middle-income countries have been the largest exporters of tobacco leaf, with countries in the Americas Region, Brazil in particular, being dominant. HICs, especially those in the European Region, have been the largest tobacco leaf importers for many decades.

Although many countries participate in either the export or import of manufactured cigarettes, this product accounts for a very small share of overall global trade. For example, in 2012, trade in cigarettes (both exports and imports) accounted for only 0.11% of the world’s total trade value in goods and services. As with tobacco leaf, trade in cigarettes is dominated by a relatively small number of countries. In 2012, five countries accounted for nearly half of the world’s cigarette exports, primarily HICs, in the European Region. Similarly, five countries accounted for about one-third of the world’s cigarette imports, and again, European Region countries accounted for the largest share.

Both the quantity and value of world cigarette exports have increased in the last several decades, with steep rises seen particularly in the late 1980s and early 1990s. These rises coincided with expansion of the General Agreement on Tariffs and Trade, an increased number of bilateral and multilateral trade agreements, and other factors reflecting increased economic globalization.

The price-instability index is considerably lower for tobacco leaf than for other agricultural products; this relative stability may well be one of the reasons that farmers find the crop attractive to grow. The export price of cigarettes from HICs has exceeded the price of cigarettes exported from LMICs for many decades, probably reflecting the higher production costs and higher quality of cigarettes produced in HICs. With regard to cigarettes, higher quality does not refer to the health impact of the product, rather it reflects features such as packaging, flavoring, or other product design features which may increase the appeal to consumers.

The increase in tobacco trade has been facilitated by adoption of a variety of international, regional, and bilateral trade agreements which have reduced tariff and non-tariff barriers to trade for a variety of goods and services. Trade in tobacco has also increased as a result of foreign investment, as described in chapter 12. In addition to the WTO agreements, the number of regional and bilateral trade and investment agreements has increased sharply since the early 1990s, providing opportunities for multinational companies, including tobacco companies, to enter or increase their presence in new markets.

Trade agreements have implications for the availability and accessibility of tobacco-related goods and services within and across countries and, as a result, for tobacco consumption. A number of studies have analyzed the impact of trade liberalization on tobacco consumption, and all have concluded that expanded trade in tobacco products has led to an increase in consumption. The new estimates presented in this chapter also show that increased trade openness increases cigarette consumption globally, with a greater impact on low-income countries, where tobacco control measures are generally weaker than in middle- and high-income countries.

Further liberalization of trade in tobacco leaf and tobacco products can be expected to increase tobacco product consumption, particularly in low-income countries. However, governments have many tools available to avert a rise in consumption, including tobacco excise tax increases, bans on smoking in public places and workplaces, packaging and labeling measures, and comprehensive bans on marketing. Such policies may be introduced or strengthened but should be nondiscriminatory and necessary to protect public health.

Research Needs

In an increasingly globalized world, global, regional, and bilateral trade agreements will continue to exert an important influence on tobacco use and tobacco control efforts. There is a continued need to understand how specific trade agreements, and trade liberalization in general, impact trade in tobacco and tobacco products, tobacco consumption, and tax evasion, and how the entry of products from multinational tobacco companies can affect the pricing and marketing strategies of local companies. Research is also needed on how trade agreements influence adoption and implementation of tobacco control policies. How tobacco companies and their allies may seek to shape the contours of trade agreements to advance their business models and spur growth (or hamper decline) in tobacco consumption is also an important focus for further research.

Conclusions

1. Trade in tobacco leaf accounts for a very small proportion (<1%) of global agricultural imports and exports, and very few countries rely heavily on earnings from trade in tobacco leaf.
2. Although many countries participate in either the export or import of manufactured cigarettes, these products account for only a very small share of overall global trade in goods and services.
3. International, regional, and bilateral trade agreements have reduced tariff and non-tariff barriers to trade, increased trade in tobacco leaf and tobacco products, and contributed to the globalization of the tobacco industry.
4. Increased liberalization of trade has contributed to increased tobacco use in low- and middle-income countries. During the period when trade in tobacco products was liberalized, most low- and middle-income countries had weak or no tobacco control measures in place.
5. Recent World Trade Organization decisions involving challenges to domestic tobacco control policies suggest that governments can address public health concerns associated with increased liberalization of trade in tobacco leaf and tobacco products by adopting and implementing effective tobacco control policies and programs that apply evenly to domestic and foreign tobacco growers and manufacturers.

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