



## 2 International trade analysis

### 2.1 Introduction

The previous chapter discussed smallholder agriculture in Pakistan in the context of global transformations taking place and highlighted:

- the explosive growth in urbanisation, associated with
- changing urban diets away from staples and towards meat, dairy, fruit and vegetable products, and more generally to processed food products
- evolution of food production systems involving production, processing, delivery, wholesale, retail and consumption
- open economies and the rapid growth in international trade.

This chapter focuses on potential international demand for Pakistan food exports. The central thesis is that there is enormous potential for Pakistan to become a major food exporter to the benefit of smallholders, and a major generator of foreign exchange for the benefit of the country more generally. It is not a lack of

opportunity holding Pakistan back from further export success, but lack of ability to deliver product to export markets. Many aspects of this monograph address how to enhance Pakistan agricultural capabilities, which may then lead to substantial increase in exports.

The changing nature of urban diets towards increasing levels of animal proteins, fruits and vegetables and more processed foods has been noted. This is a global phenomenon and much of the expected global growth is located near Pakistan in North, Central and South Asia, the Middle East and in South-East Asia. These developments provide opportunities for Pakistan to leverage this for farmers, agri-businesses, input suppliers, and non-farm service suppliers. The key is to further develop efficient linkages between the rural areas and food service businesses in towns/cities and ultimately to domestic and export markets.

## 2.2 Global trade in meat, dairy, fruit and vegetable products

Figure 2.1 shows the global import values for dairy, eggs, honey, meat, fruit and vegetable imports. In 2001 imports were valued at just under US\$200 billion, and this increased three-fold with imports valued at just over US\$600 billion in 2017. A linear extrapolation sees imports increasing by another US\$300 billion by 2025.

Figure 2.2 and Figure 2.3 show the above imports sourced from Pakistan and list Pakistan's exports as a share of world imports. Pakistan is a small supplier on a global scale supplying US\$1.6 billion in 2017, mostly fruit and vegetables. Pakistan has a market share of less than 0.7%, although imports sourced from Pakistan are increasing over time.

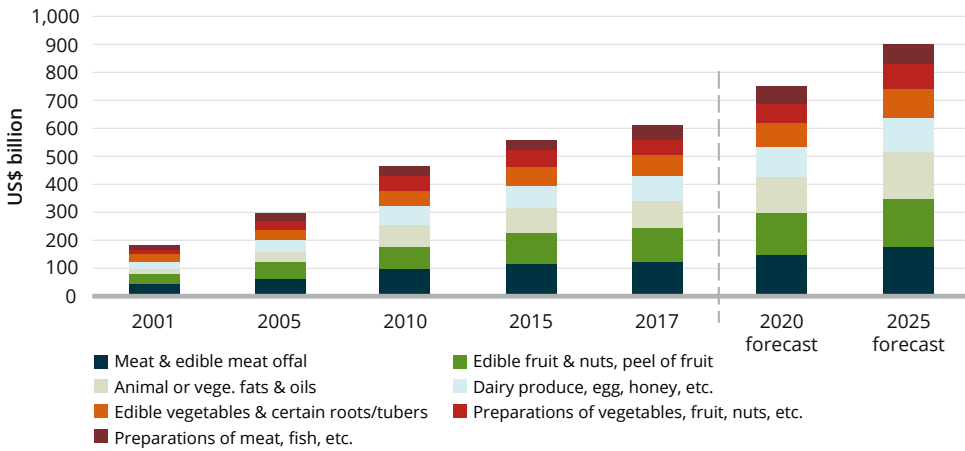


Figure 2.1 Value of world imports of dairy, eggs, honey, meat, fruit and vegetable products, forecast to 2025.

Forecast based on linear regression predictions.  
Source: TradeData International.

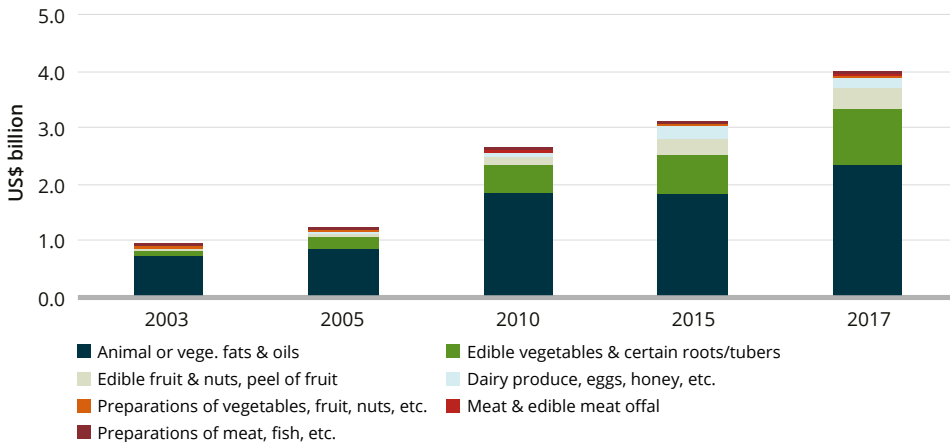
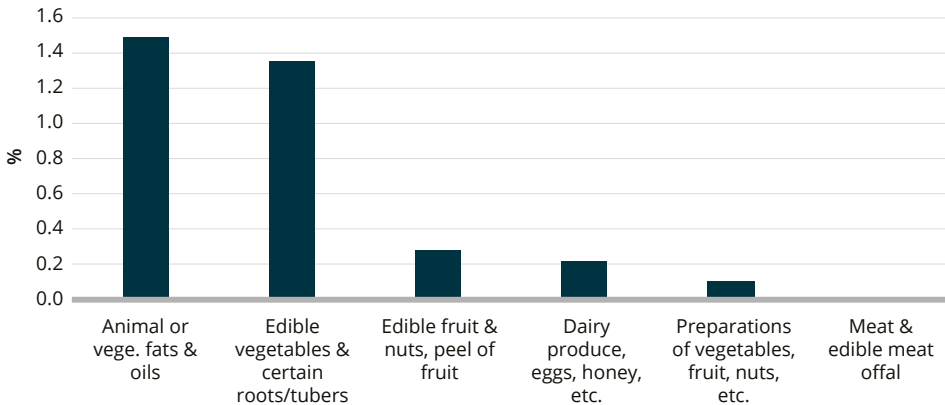


Figure 2.2 Value of world imports of dairy, eggs, honey, meat, fruit and vegetable products from Pakistan.

Source: TradeData International.



**Figure 2.3** Share of world imports sourced from Pakistan of dairy, eggs, honey, meat, fruit and vegetable products, 2017.

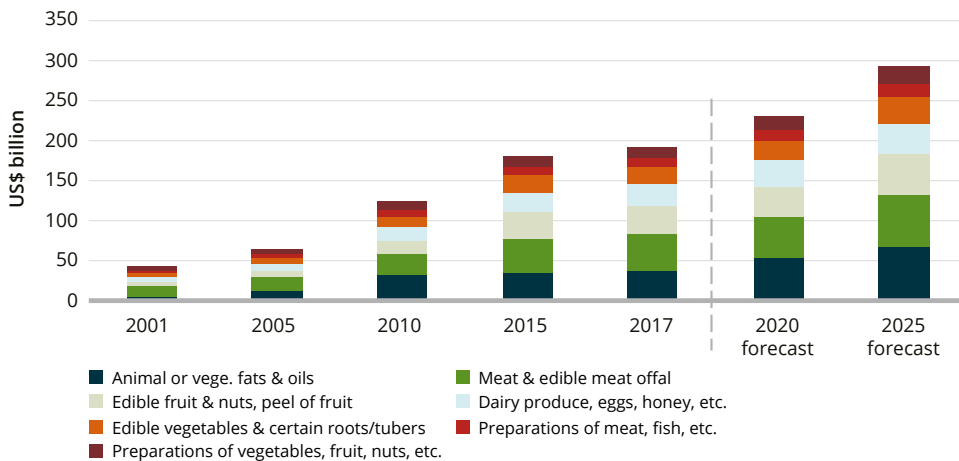
Source: TradeData International.

### 2.2.1 Nearby regional import markets

The import markets neighbouring Pakistan are growing far faster than the world market. Figure 2.4 lists the value of dairy, eggs, honey, meat, fruit and vegetable product imports into Asia, the Middle East and Oceania. Import values increased four-fold between 2001 and 2017, and if these trends continue, import values will increase by a further 50% by 2025. Pakistan is strategically located in the middle of these fast-growing import markets.

### 2.3 Pakistan exports

In this project we undertook a detailed international trade analysis for mangoes and mandarins, and this is presented later in this chapter. In summary, markets for these fruits are increasing. Pakistan has a low market share and exports small volumes to a wide range of countries. The remainder of Pakistan's exports are highly concentrated in only a small number of countries. Pakistan exports



**Figure 2.4** Value of Asia, Middle East and Oceania imports of dairy, eggs, honey, meat, fruit and vegetable products, forecast to 2025.

Forecast based on linear regression predictions

Source: TradeData International.

significant volumes to only a small number of countries and tiny volumes to a large number. Thus, there are many potential opportunities to expand exports and some of these are identified in this chapter.

### 2.3.1 Lack of processing and export market diversification

Product processing is another major potential export opportunity not grasped by Pakistan. The trade analysis demonstrates the importance of processed product for export. For example, a significant proportion of Indian mango exports are processed product. In the large USA import market, around 40% of Indian exports to the USA are dried mangoes. There are no dried mango exports from Pakistan to the USA. Processing also allows for ongoing storage and for export supply continuously throughout the year, and not just when fresh in season, as is currently the case for Pakistan exports.

An additional advantage of increased fresh and processed exports is that these fruits are then not sold into the local market which, in season, is generally oversupplied leading to low prices. Smallholders mostly sell into the local market. Increased export sales of fresh and processed product will have the by-product of supporting local market prices, and thus supporting smallholders.

#### RECOMMENDATION 2.1

It is recommended that policies be introduced to promote development of food processing facilities in rural settings of Pakistan, for supplying both the domestic and export markets.

### 2.3.2 Cooperation with Indian companies

Indian companies have a long and successful history of acting as sourcing agents for many retailers in North America and across Europe. They already have existing supply arrangements in place. If cooperation between

Pakistan and India can be improved, Pakistan exporters could gain increased access into these supply networks via Indian companies.

For some products, such as mangoes, the Pakistan season follows the Indian season. Cooperation with India would enable Indian fresh product exporters to offer their customers a longer supply period if they are able to supply first from India and then from Pakistan.

#### RECOMMENDATION 2.2

It is recommended that federal and provincial governments assist in facilitating linkages between Pakistan exporters and Indian sourcing agents that have existing supply networks into North America and Europe.

### 2.3.3 Smallholder participation in modern supply chains and export markets

Modern supply chains (for example, supermarkets) require supply of quality fresh fruit with strict hygiene, volume and traceability requirements. Smallholder farms traditionally supply small local retail stores or roadside stalls. Smallholder participation with supermarkets may only be possible via producer groups or other collective action that can generate the scale required by supermarkets and can also offer smallholders the education and other inputs to meet quality and traceability requirements.

The combination of collective arrangements with contract farming may also enable smallholder participation in large modern retail markets. Chapter 6 covers policies to encourage collective arrangements.

Like supermarkets, export markets require quality products with correct grading, handling, packaging and presentation. These are particularly important to achieve the higher prices often attained.

To satisfy export requirements there need to be major improvements in Pakistan's agricultural marketing chains. This will start at the farm to ensure that the various certifications are attained. Product must then be properly harvested, handled, treated, graded and packaged before export. For Pakistan these issues pose significant challenges. In many cases, large-scale structural and organisational changes will be required, and government will have to play a significant role in initiating these changes. Chapter 5 discusses many of these issues.

### RECOMMENDATION 2.3

Strengthen regulations associated with product testing, grading, standards, and weights and measures, and introduce a national grading system that is credible, enforceable, widely published and accepted.

### 2.3.4 SPS compliance

The system of sanitary and phytosanitary (SPS) agreements relates to the application of SPS measures to food safety and related regulations for animal welfare and plant safety. All countries are encouraged to adopt measures based on international standards backed by scientific research. Developed countries tend to adopt higher SPS standards and there are numerous accreditation schemes, which are required to be met for export to developed countries. Some examples are Global Good Agricultural Practice (Global GAP) and EurepGap.

SPS regulations force exporting countries to adopt very specific agricultural production, harvesting, handling, transport and trading practices. These require whole supply chain adherence and in many instances are not compatible with traditional methods often found in Pakistan. Related to this is the availability of scientific and technical expertise in government and throughout the whole

supply chain on SPS matters. Chapter 4 considers the role a revamped system of extension services can play in delivering training to smallholders to achieve necessary accreditations.

To achieve SPS compliance substantial investment is required throughout the supply chain. However once achieved, there is then the possibility to substantially increase and diversify Pakistan exports. Associated with this diversification is the new emerging organic export market—a growing niche market that Pakistan may be able to exploit.

### RECOMMENDATION 2.4

Develop policies to ensure that SPS requirements of export markets are met, and that efficient SPS dispute resolution capabilities are in place.

### 2.3.5 Export marketing: freer trade and export promotion activities

The world import market for high-quality reasonably priced fruits, vegetables, meat and dairy products is growing steadily. Much of the expected growth in international agricultural trade is located near Pakistan.

In addition, Pakistan exports are heavily concentrated in a few countries and there is a need to diversify this reliance. For example, mandarin exports are heavily concentrated in the Russian market and mango exports in the UK and the UAE. Pakistan also mostly exports fresh produce, whereas its neighbour, India, is also a significant processed product exporter.

One area for government involvement in export trade is in negotiating bilateral free trade agreements (FTAs) which involve improved market access and create a freer flow of goods and services. Pakistan has already negotiated improved market access to China, the South Asian Association for Regional Cooperation Countries and several other countries.

**RECOMMENDATION 2.5**

Federal government should continue negotiating bilateral trade agreements to increase access for Pakistan’s agricultural exports. Both federal and provincial government should be active in overseas export promotion activities, such as assisting potential exporters to meet overseas customers.

**RECOMMENDATION 2.6**

It is recommended that a major strategic policy objective for the Pakistan agricultural sector should be to become a significant global supplier of key agricultural products into nearby regions in coming years.

**2.4 International trade analysis**

**2.3.6 China–Pakistan Economic Corridor**

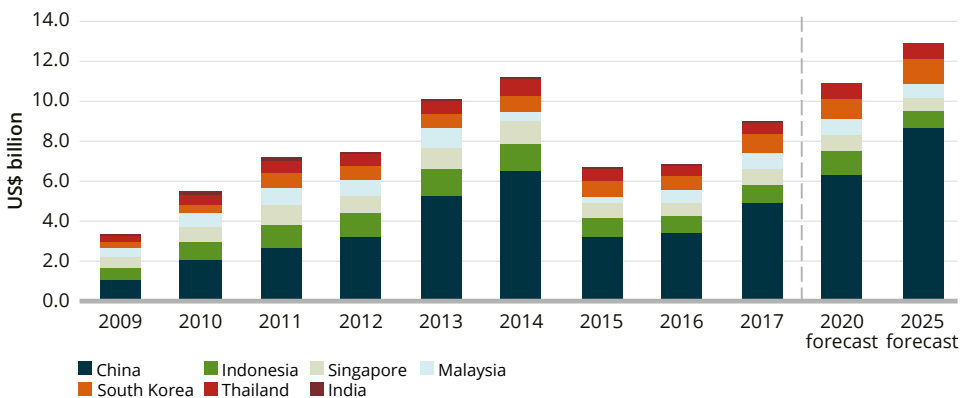
The China–Pakistan Economic Corridor (CPEC) is a collection of infrastructure projects that are currently underway throughout Pakistan. Improved transport infrastructure is a major component with a large network of highways and railways to be built that will connect Gwadar and Karachi in the south with northern Pakistan and then into Western China and Central Asia.

This improved infrastructure is important in providing rural Pakistan with more efficient transport linkages with the major domestic urban and international markets. China is the largest regional market and fast growing, and CPEC is an important enabling infrastructure for increasing Pakistan rural exports.

**2.4.1 Dairy products**

There was no major focus in the project on dairy export development, despite the rapid rise in domestic demand and imports of dairy products. However, recent policy papers from the Punjab Livestock and Dairy Department introduce this focus with a range of initiatives that, if successful, will enable Pakistan to become a significant dairy exporter.

TradeData analysis shows the value of the dairy trade into selected Asian countries—China, Indonesia, Singapore, Malaysia, South Korea, Thailand and India—and shows imports increasing rapidly up until 2014 (Figure 2.5). The value of imports declined substantially in 2015 due to declines in prices; 2015 levels were maintained in 2016. Even after these declines



**Figure 2.5 Value of dairy imports, selected countries, 2009–25.**

Source: TradeData International.

import trade was still more than US\$6 billion in 2016. Trade rebounded strongly in 2017. A linear interpolation of these trends to 2025 sees dairy imports of around US\$13 billion in 2025. A huge import market for dairy products exists near Pakistan with China accounting for more than half of the trade. The development of efficient transport links by the CPEC between Pakistan and China is enabling potential dairy exports.

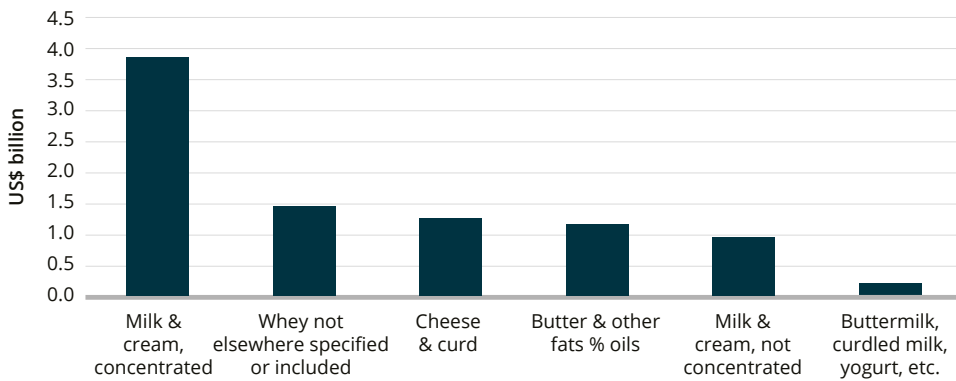
Figure 2.6 lists the major dairy products imported into the selected countries. Powdered

milk is by far the major product traded followed by whey powder, cheese and butter.

## 2.4.2 Mandarins

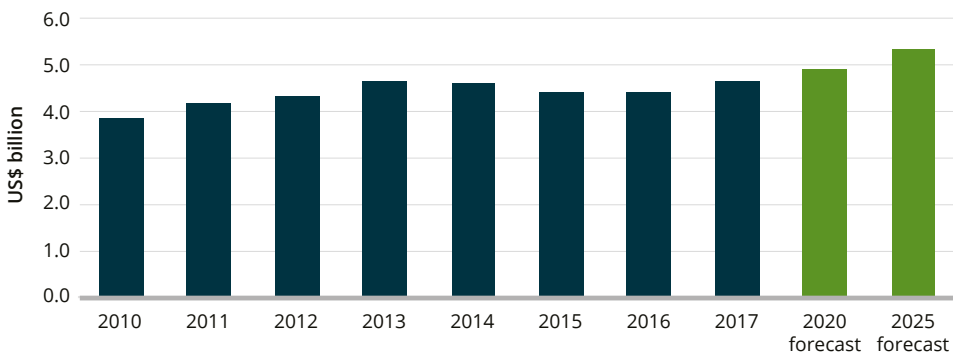
### 2.4.2.1 Global trade

The global international trade in mandarins is estimated at around US\$4.5 billion in 2017. A linear interpolation of recent trends suggests a world market of around US\$5.4 billion in 2025 (Figure 2.7).



**Figure 2.6** Value of dairy imports, selected countries (China, Indonesia, Singapore, Malaysia, South Korea, Thailand and India), by product, 2017.

Source: TradeData International.



**Figure 2.7** Value of global mandarin imports, 2010-25.

Forecast based on linear regression predictions.

Source: TradeData International.

The major import markets are Russia, Western Europe and North America (Figure 2.8). However in Asia, Thailand, Indonesia, Malaysia, Vietnam and the Philippines are also significant import markets. Mandarins are imported into many countries as can be seen in the 'Others' component in the figure.

Imports of mandarins are highly seasonal with the high season between October and the following April (Figure 2.9). Pakistan is a relatively small supplier to the global market and can supply during the second half of this

period between January and May. The global market declines markedly as the Pakistan supply season progresses.

During the Pakistan supply season (January to May), Pakistan supplies an estimated 5% of global trade. The larger import countries currently are Russia, Germany, France, UK and USA, but many other countries also import mandarins during the Pakistan supply season, as seen in Figure 2.10.

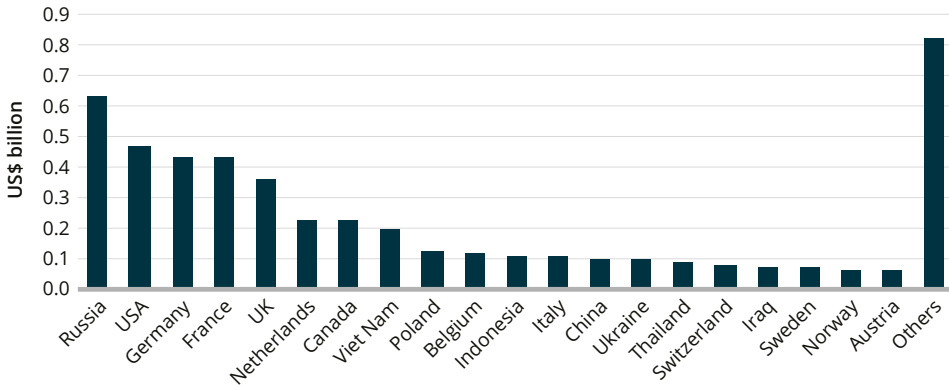


Figure 2.8 Value of mandarin major import markets, 2017.

Source: TradeData International.

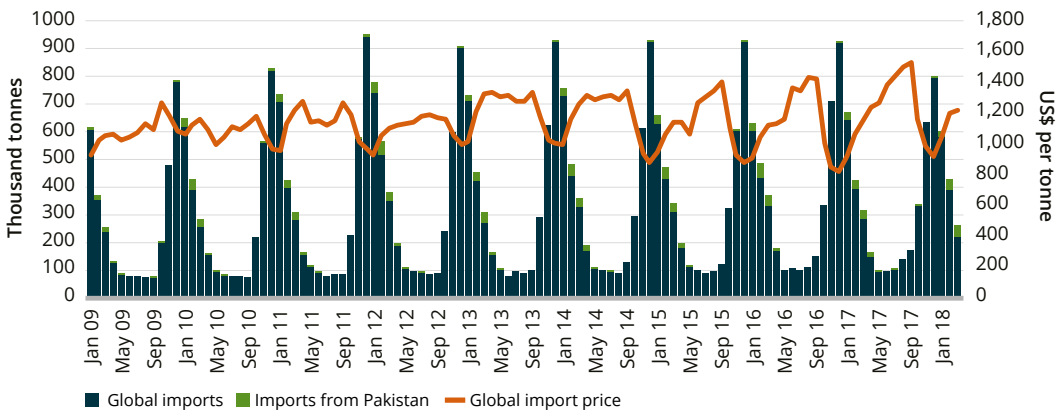


Figure 2.9 Mandarin global imports and imports sourced from Pakistan, 2009-18.

Figure includes around 80% of global trade and covers countries that supply up-to-date monthly information.

Source: TradeData International.



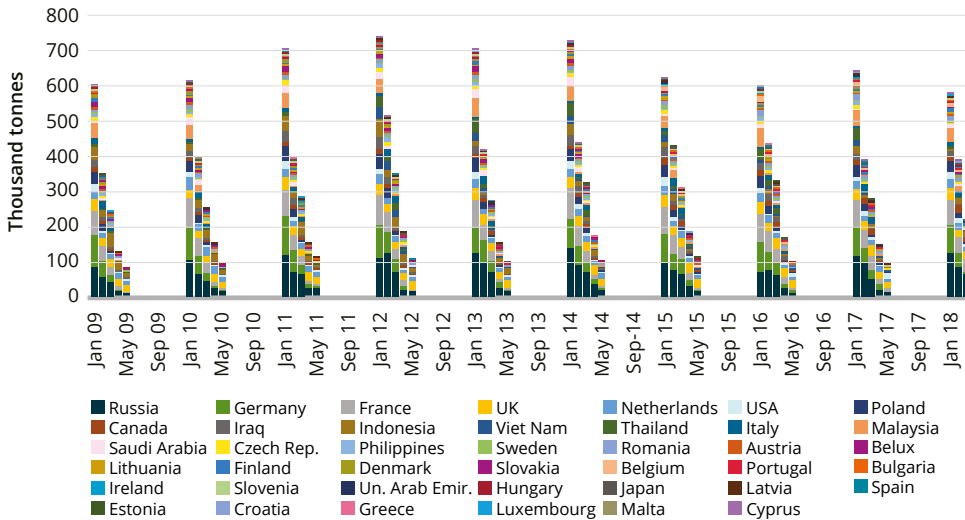


Figure 2.10 Mandarin import markets during the Pakistan supply season, January to May.

Source: TradeData International.

2.4.2.2 Russian trade

Although the global market is diverse, Pakistan’s mandarin exports are concentrated into Russia. In the large Russian market, Pakistan supplies in the second half of the peak season and is a relatively small supplier. Imports into Russia from Pakistan declined in 2017 and these lower levels were maintained

early in 2018. Pakistan’s reliance on one export market underlies the need for diversification (Figure 2.11).

2.4.2.3 Other markets

Pakistan also exports mandarins to a wide range of other countries (Figure 2.12), but mostly only small volumes. Thus, there is

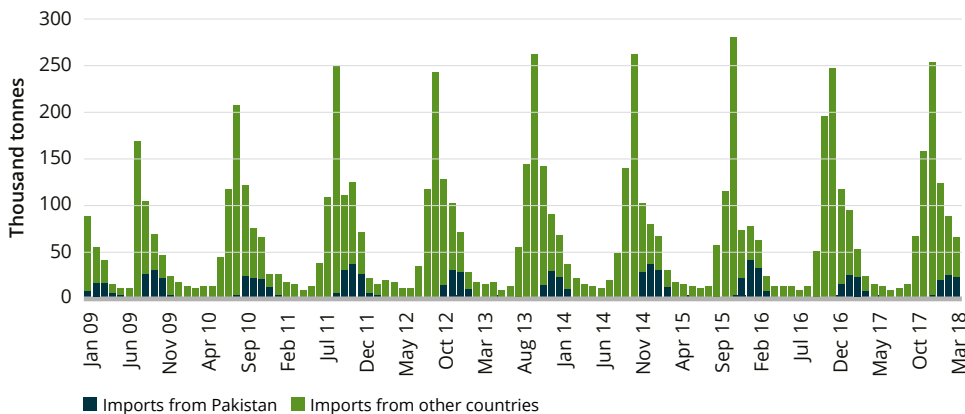
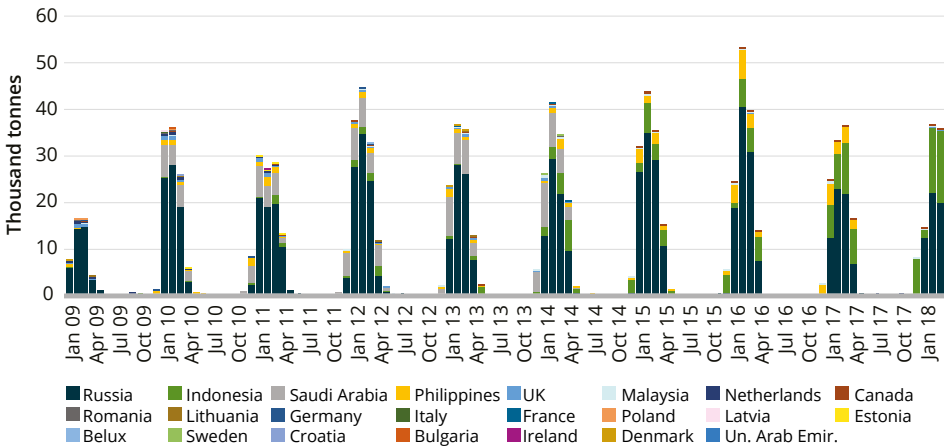


Figure 2.11 Pakistan in the Russian mandarin import market, 2009-18.

Pakistan is a major supplier to Russia for 3 to 4 months a year.

Source: TradeData International.



**Figure 2.12 Mandarin imports sourced from Pakistan, 2009-18.**

Pakistan mandarins are mostly exported to Russia. Exports to Indonesia increased strongly in 2014 and 2015, and particularly in early 2018. Saudi Arabia and UAE data are not available after 2014. Source: TradeData International.

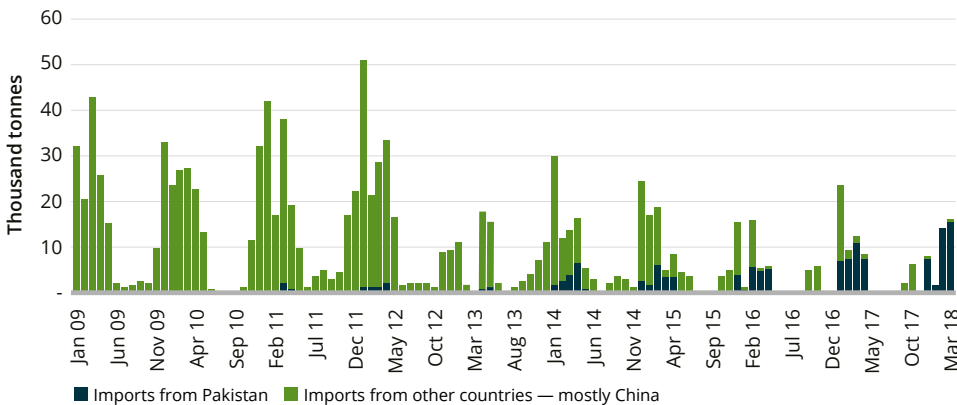
potential to substantially increase these export levels. In the UK, Pakistan is a tiny supplier and exports have declined substantially in recent years. Pakistan is also only a small supplier to other Western European markets, and exports to the USA are negligible.

The development of this market showcases the results of active government engagement in export promotion and free trade agreement negotiations.

**2.4.2.4 Indonesian trade**

A more recent development is Pakistan mandarin exports to Indonesia (Figure 2.13), which have increased strongly since 2014.

In the years up to 2011, the Indonesian market was totally dominated by supply from China. The year 2011 saw the beginning of Pakistan exports to Indonesia and these have increased substantially since then. By 2018 Pakistan has become the dominant supplier to Indonesia (Box 2.1).



**Figure 2.13 Pakistan's emergence in the Indonesian mandarin import market, 2009-18.**

Bilateral government negotiations led to the opening of the Indonesian market to mandarins from Pakistan. Source: TradeData International.

### Box 2.1 Case study: active government involvement in the opening up of Kinnow mandarin exports to Indonesia

The recent opening up of the Indonesian import market to exports of mandarins from Pakistan demonstrates how active Pakistan government involvement has led directly to increased exports. Pakistan and Indonesia have had cordial relations for decades and in trade terms there was a trade imbalance heavily in favour of Indonesia.

Several years ago, both countries agreed to form interdepartmental working groups to advise on negotiations on a preferential trade agreement (PTA) between the two countries. The recommendations of the working groups were discussed at a series of meetings, in Jakarta and Islamabad, and this led to the signing of the PTA in February 2012. The agreement seeks to increase market access to both parties by lowering tariffs and working towards increased cooperation on SPS issues.

As part of the PTA follow-up processes, the Pakistan Department of Plant Protection and the Indonesian Agriculture Quarantine Authority had a series of meetings and exchanged technical information on SPS-related issues. This led to a mutual recognition agreement (MRA) which was signed between the two quarantine

authorities on 30 August 2013. The MRA outlines how SPS issues between the two countries are to be handled and how any disputes that might arise are to be resolved.

Through this agreement, Pakistan obtained access for all Pakistani agricultural products into Indonesia at mutually agreed reduced tariff and excise duties, and was granted the use of Tanjung Priok seaport for export of its Kinnow mandarins.

Previously an import duty of 35% was levied on the import of Pakistani Kinnow into Indonesia. After the signing of the PTA and MRA, tariffs were reduced to zero. In addition, the use of Tanjung Priok seaport is important. Tanjung Priok is the main seaport for Jakarta and had been closed for agricultural imports due to the lack of sufficient laboratory and testing facilities. The MRA overcomes this barrier.

Thus active government involvement at both a departmental level (working groups, joint discussions, country visits etc.) and at a ministerial level was important in facilitating the now recorded increased exports of Pakistan mandarins to Indonesia.

Source: Based on material supplied by Razaq A. Malkana.

#### 2.4.2.5 Philippines and Vietnam potential

Pakistan currently exports small volumes of mandarins to many countries. There are two other significant import markets in South East Asia which are similar in character to Indonesia in 2010—the Philippines (Figure 2.14) and Vietnam (Figure 2.15).

#### RECOMMENDATION 2.7

**It is recommended that Pakistan should evaluate the Philippines and Vietnam as potential mandarin export opportunities and attempt to duplicate the recent success in Indonesia.**

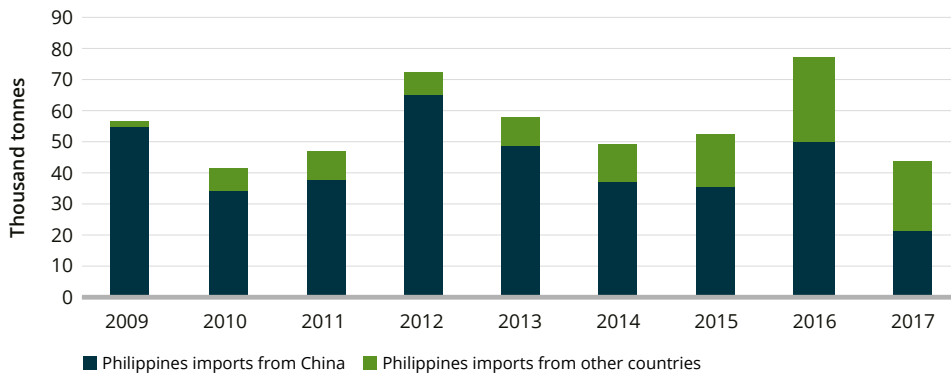


Figure 2.14 Philippines mandarin imports, 2009-17.

Source: TradeData International.



Figure 2.15 Vietnam mandarin imports, 2011-17.

Source: TradeData International.

### 2.4.3 Mangoes

The global international trade in mangoes is around 1.5 million tonnes with a value of US\$2.8 billion in 2017 (Figure 2.16). Global trade is growing steadily. Values are growing faster than quantities thus average prices are increasing. If current trends continue global mango imports are expected to be around US\$4.3 billion in 2015.

The major import markets are the USA and Western Europe (Figure 2.17). UAE, Saudi Arabia and Japan are also important markets. However, many other countries also import mangoes (as seen in the large 'Others' element in Figure 2.17) and these countries also represent potential future export opportunities for Pakistan.

International trade in mangoes is highly seasonal with the peak season between February and September. Pakistan can supply during the second half of the peak season between May and September (Figure 2.18). The peak month is May which is at the beginning of the Pakistan export season. Pakistan is currently a small supplier to the global market but a significant supplier for a few months when in season.

During the Pakistan supply season, there are many countries that import mangoes (Figure 2.19). The larger markets are North America, Europe, North Asia and the Middle East.

Pakistan mangoes are mainly exported to the UK, the UAE and Saudi Arabia, and other countries in Europe (Figure 2.20). Exports to

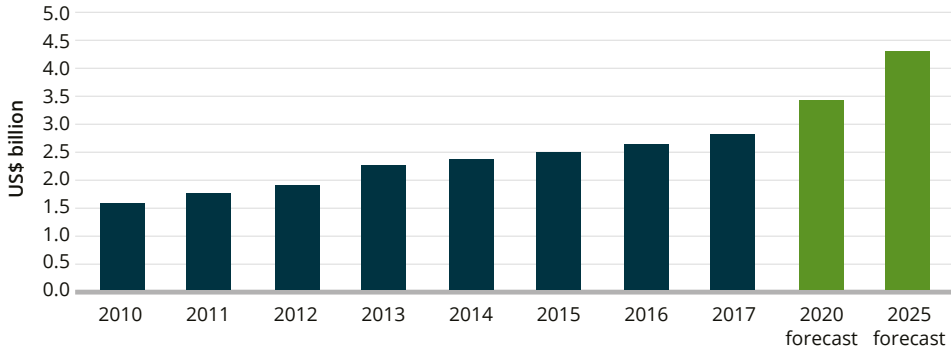


Figure 2.16 Value of global imports of mangoes, 2010–25.

Forecast based on linear regression predictions.  
Source: TradeData International.

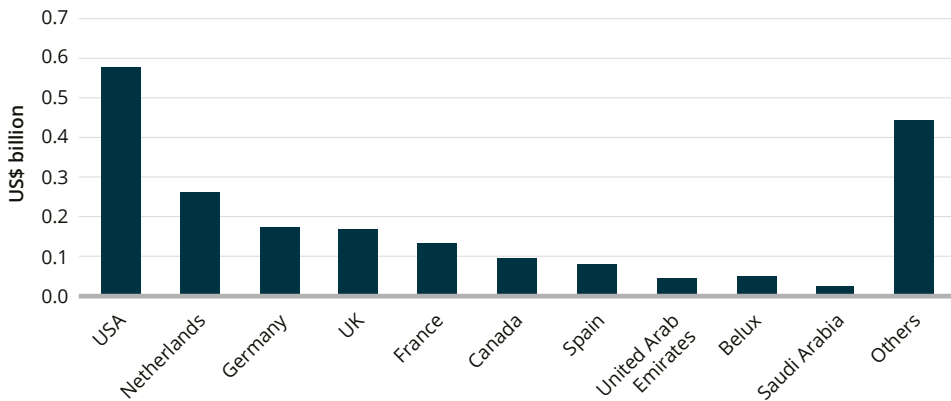


Figure 2.17 Value of global mango imports by country, 2017.

Source: TradeData International.

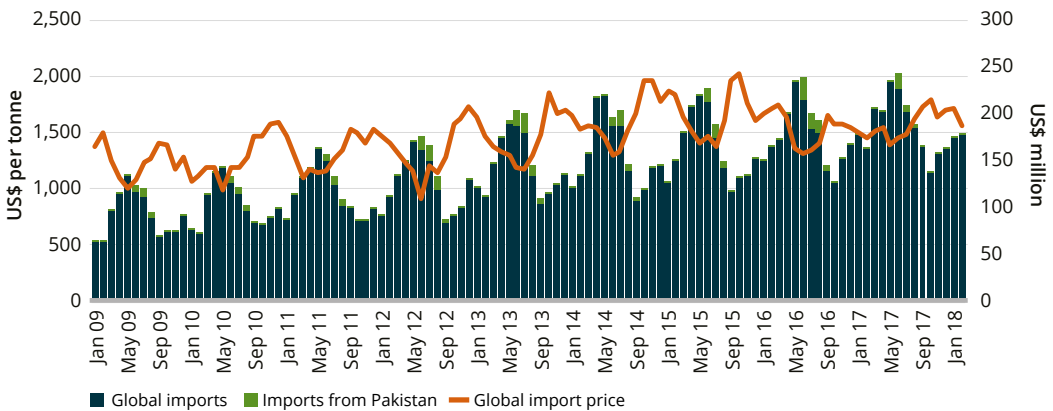


Figure 2.18 Mangoes: Value of global imports and imports sourced from Pakistan, 2009–18.

For some countries import data also includes guavas and mangosteens. Late 2017 and 2018 do not include all countries. Middle East countries' imports are deduced from export statistics.  
Source: TradeData International.

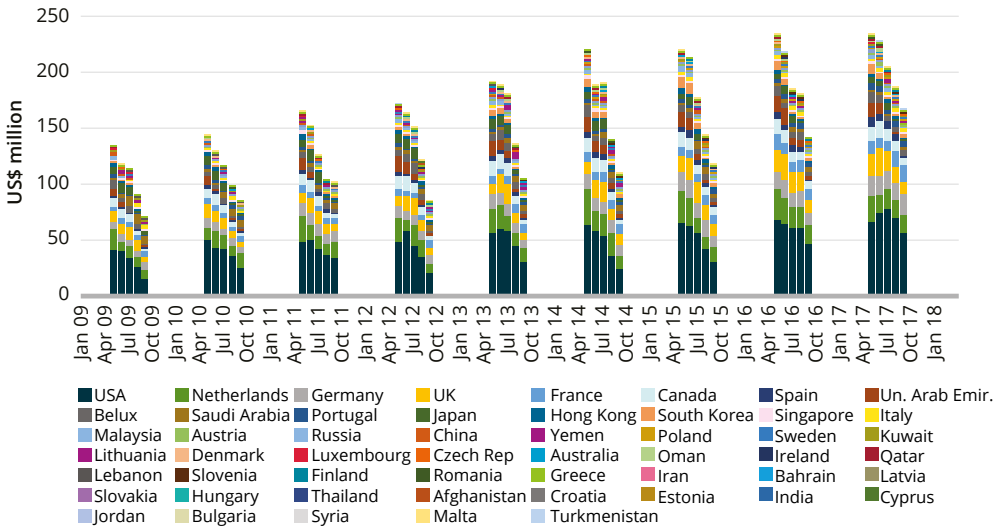


Figure 2.19 Value of mango imports for importing countries during the Pakistan supply season, 2009-18.

Source: TradeData International.

the UK and the UAE dominate and exports to both countries declined in 2017 leading to an overall decline in exports. However, there are many other countries that import Pakistan mangoes but in relatively small volumes. These are mostly in Europe and Asia and represent potential future export opportunities.

Pakistan’s share of the global mango trade during its supply season peaked in 2012 and 2013 at between 8% and 12% (Figure 2.21). This has since declined to between 4% and 8% in 2017. As the global market has continued to grow in recent years, Pakistan has not kept pace with this growth.

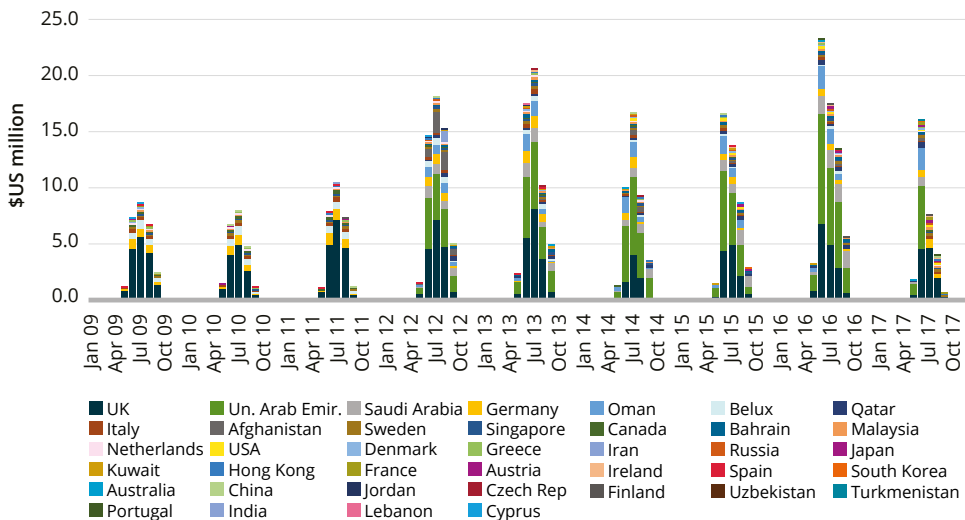


Figure 2.20 Value of mango imports sourced from Pakistan, 2009-17.

Source: TradeData International.

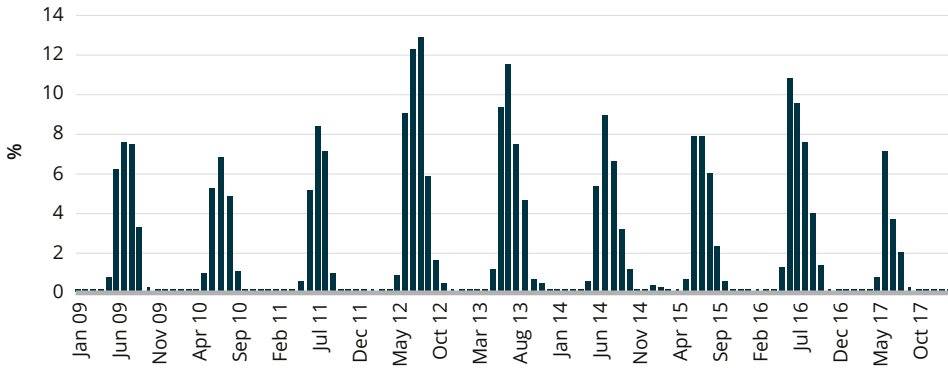


Figure 2.21 Percentage of global mango imports sourced from Pakistan, 2009-18.

Source: TradeData International.

**RECOMMENDATION 2.8**

It is recommended that Pakistan identify and target a range of countries that import mangoes during the Pakistan supply season with the aim of linking Pakistan exporters with importers from the targeted countries.

products all year around (Figure 2.22). The lack of mango processing in Pakistan is restricting the ability of Pakistan to further increase mango exports.

**2.4.3.2 USA market**

The USA is the world's largest mango import market and neither Pakistan nor India are major suppliers to the market (Figure 2.23). The chart lists their export performance to the USA and shows:

- imports into the USA from India are growing rapidly but this is not the case from Pakistan—both are from a low base

**2.4.3.1 Lack of processing—comparisons with India**

Pakistan mostly exports fresh mango fruit when it is in season, yet its neighbour India supplies dried mango and other processed

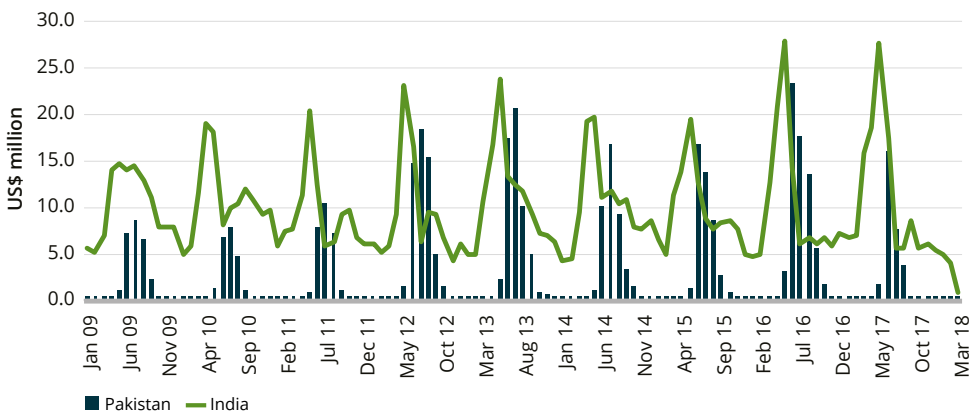


Figure 2.22 Value of Pakistan and India mango exports, 2009-18.

Source: TradeData International.

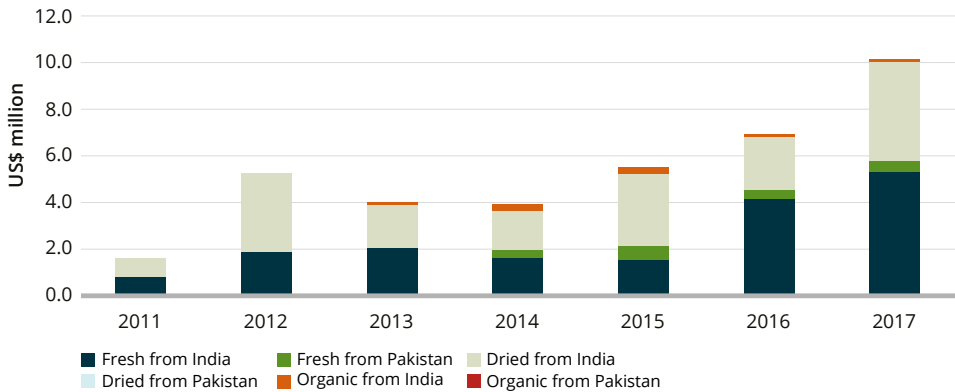


Figure 2.23 Value of Pakistan and India in the USA mango import market, 2011-17.

Source: TradeData International.

- the importance of processing (drying) of Indian mangoes before export which is not seen in Pakistan trade.

## 2.5 Conclusions

Pakistani exports of mandarins and mangoes are heavily concentrated into only a few countries, yet Pakistan also exports small amounts to many other countries. The analysis shows there are many potential export opportunities for Pakistan to consider for both fresh and processed fruit. Outside of the large import countries—USA, Western Europe, Russia and the Middle East—there are dozens of smaller import markets for both mandarins and mangoes. For example, China’s mango imports are growing strongly, while Singapore and Hong Kong also have growing mango markets. For mandarins, potential opportunities are identified in Vietnam and the Philippines.

Historically, Pakistan has been a major exporter to the Middle East. Middle East markets are generally lower priced and have lower SPS requirements. There are many other potential markets for Pakistan where import demand is increasing and which offer higher prices. This highlights the importance of SPS, export promotion and other market access issues outlined in Chapter 5 as necessary for export success. It is not the lack of potential market opportunities restricting Pakistan exports, but the ability to promote and supply high-quality products, at the right price, that satisfy individual market SPS requirements. In addition, the lack of processing of fresh produce into other products is also hindering export performance.