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Opportunities Are Emerging From Risks

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Chenjun Pan

Senior Analyst – Animal Protein
+852 2103 2430

For a full list of authors,
please see the back page.

Rising disease pressures continue to challenge the global market. Although the severity of African swine fever's (ASF) impact is subdued in some regions, the scope of the disease has expanded over recent months. The ramifications in 2020 will lead to continuous caution on production expansion in some regions and higher import demand on the global balance sheet. The 'phase one' trade deal will open up opportunities for US exporters to increase shipments to China. In addition, several ongoing, regional trade-deal discussions will influence global trade flows. The Rabobank Five-Nation Hog Price Index increased strongly in 2019, in response to the disease's impact (see Figure 1).

China: More imports expected

ASF continues to spread in China, though the pace has slowed. Policies encourage restocking and production expansion, which is currently conducted by large companies with better biosecurity and modern farming facilities. As restocking is mainly achieved by keeping gilts, we expect to see a further drop in local production in 2020, which will reduce overall pork production. This suggests imports will increase in 2020, above record levels.

Europe: Slow production growth

Following an estimated slight decline in 2019, EU pork production is expected to increase by about 1% in 2020, driven by high prices and strong export demand. However, uncertainties, such as the Brexit trade-deal negotiation, US-China trade tensions, and local ASF risks, will affect EU production and trade.

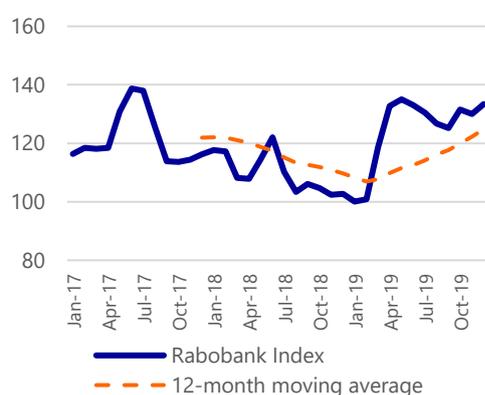
US: Continued production growth in 2020

Pork production in 2020 is expected to rise 3.2% YOY, driven by modest growth in the breeding herd and improvement in productivity. Pork export demand will remain robust, due to expected increasing shipments following the implementation of the trade agreements with China and Japan. However, labor shortages remain a key constraint in 2020, as increases in hog supplies continue to outpace packer capacity – an issue that faster packing line speeds could help to mitigate.

Brazil: Exports move to higher levels

As seen in 2019, the impact of ASF is expected to raise international demand for Brazilian pork further. Likewise, domestic demand is consistently improving on the back of ongoing economic reforms. With feed costs expected to remain reasonable and price levels expected to remain high, margins along the production chain will be well supported in 2020.

Figure 1: Rabobank Five-Nation Hog Price Index, 2017-2019 (Jan 2015 = 100)



Source: national statistics, Rabobank 2020

Figure 2: Rabobank currency forecasts, Jan 2020-Jan 2021

	Jan 03	3M	6M	12M
EUR/USD	1.12	1.09	1.08	1.13
USD/JPY	108.1	108	107	105
USD/CAD	1.3	1.34	1.34	1.36
USD/BRL	4.05	4.10	4.10	4.05
USD/MXN	18.9	19.6	19.8	20.0
USD/CNY	6.97	7.07	7.30	7.60

Source: Rabobank 2020

Feature Story: Higher Import Requirements for 2020

African swine fever pressures will continue to be the major change driver in global animal protein in 2020. In this article, we forecast the requirements of major importing countries for 2020.

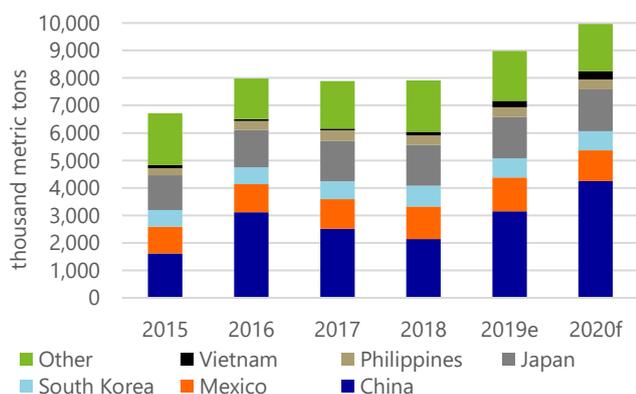
Import needs of key countries in 2020

African swine fever spread to a number of countries in 2019. After hitting China and Vietnam – the two major pork countries in Asia – and Laos, Myanmar, and Cambodia, it made its way to the Philippines, South Korea, and Indonesia in 2H 2019. The impact in many countries, though still significant, is not as big as in China and Vietnam, due to lower hog population density and preparedness for the disease. However, the effects go beyond the culling of hogs in affected regions and extend to farmers' confidence to expand production. We expect key importers to look for higher imports to meet the local supply gap in 2020 (see Figure 3).

In China, ASF continues to impact production. While only single digit numbers of new cases have been reported in recent months, losses in the sow herd will lead to lower domestic production in 2020. This suggests China needs to import more to meet local needs than in 2019, when imports reached a new record of an estimated 3.1m to 3.2m metric tons, including meat and offal. We expect imports in 2020 to potentially increase by 30% to 40%, reaching 4.25m metric tons.

In Japan, classical swine fever outbreaks may apply some pressure to domestic production, although herd loss to date remains inconsequential. Imports account for slightly over 50% of Japan's pork demand, and stockpiles of imported pork typically account for 8% to 9% of annual demand. We expect Japan's 2020 pork imports to remain stable at 1.5m metric tons.

Figure 3: Expected pork imports for main importing countries, 2015-2020f



Source: national statistics, USDA, Rabobank 2020

For South Korea, we expect 2020 pork imports to remain flat at 700,000 metric tons. Pork imports typically peak in Q2, subject to local production and pricing. South Korea's per capita pork consumption is expected to remain stagnant at 41kg cwt in both 2019 and 2020.

Vietnam's pork imports expanded by 38% in the first three quarters of 2019, to 120,000 metric tons, and likely expanded further in Q4 2019. This is in line with peak seasonal demand and ongoing local shortages, given a 22% drop in the herd due to ASF. This should bring pork imports to 239,000 metric tons (+81% YOY) in 2019, with further expansion towards 274,000 metric tons (base case) to 295,000 metric tons (high case) expected in 2020.

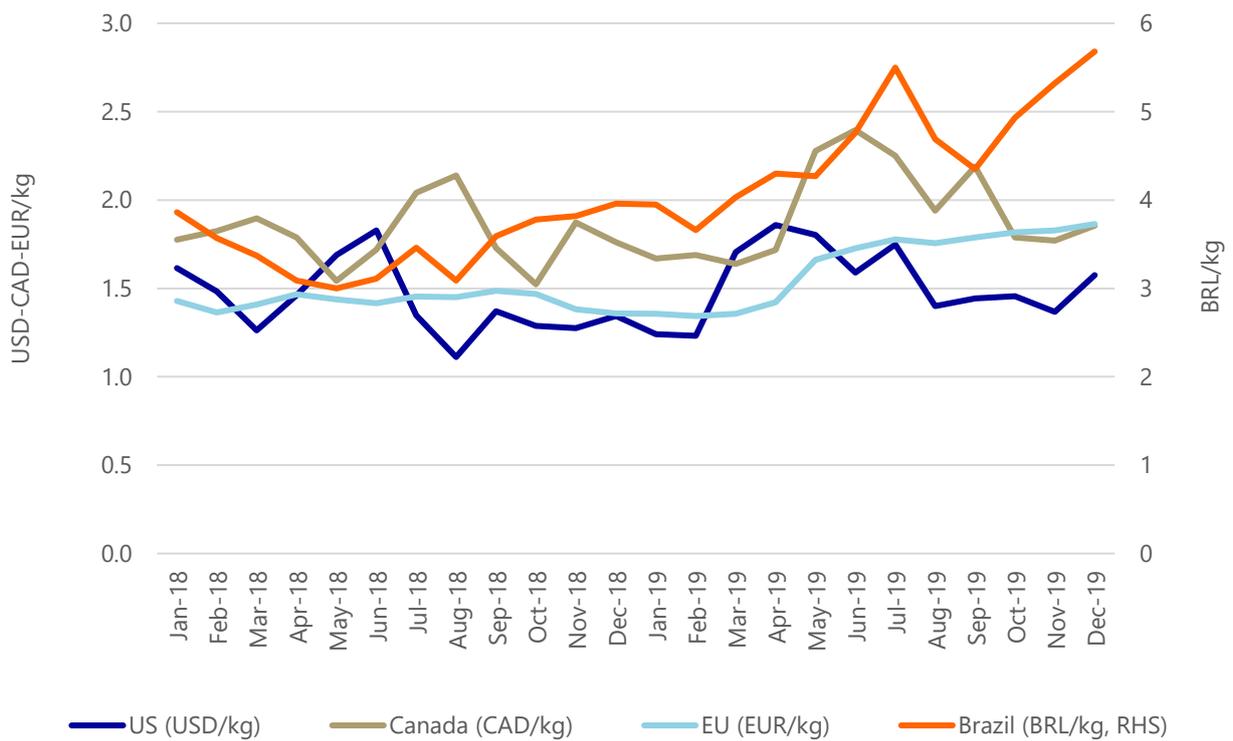
The Philippines imported 220,000 metric tons of pork in the first three quarters of 2019 (-15% YOY). The drop is not surprising, as there have been restrictions on import origins and would have been some liquidation following ASF outbreaks to avoid the risk of contagion, in addition to some demand restraint. Imports are estimated to have picked up again in Q4 2019 to end the year at 347,000 metric tons. However, lower expected herd numbers necessitate the Philippines increasing imports by 4% YOY (base case) to 7% YOY (high case) in 2020.

After flat imports in 2019, Rabobank expects a 4.4% decline in Mexican pork imports in 2020, to 1.12m metric tons. Higher pork prices, a weaker economy, and larger domestic production all work to limit projected per capita pork consumption in the coming year. Strong global demand has resulted in a nearly 40% YOY increase in ham values, which, along with a relatively weak Mexican peso, will limit import demand. At the same time, local pork production is projected to rise by 7% YOY in 2020, which should help satisfy domestic demand.

Uncertainties may alter 2020 import patterns

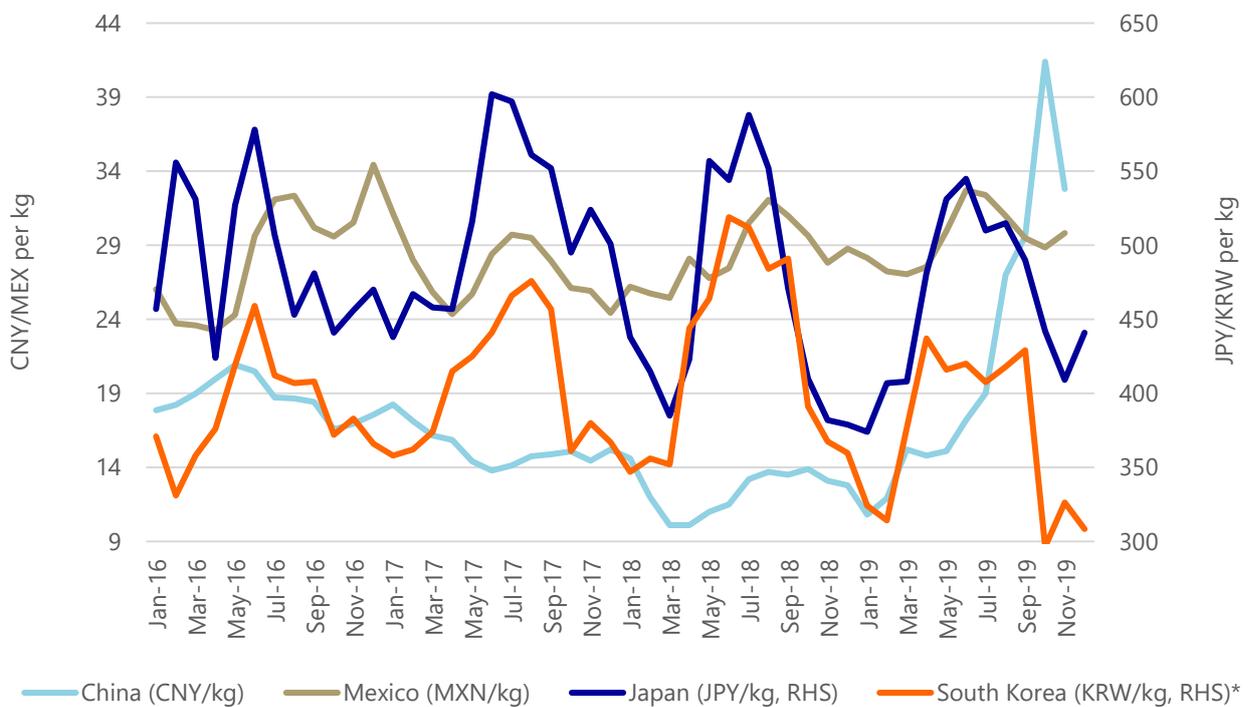
Strong import requirements will be driven by China, Vietnam, and the Philippines in 2020. While the 'phase one' trade deal has removed some uncertainties, the actual trade flows will still be impacted by factors that will remain uncertain in 2020, such as changes in market access, policy implementation, and farmers' decisions to expand production. We expect to see a tighter supply against strong demand and, as a result, more volatile prices in the global market in 2020.

Figure 4: Pork prices in exporting countries, Jan 2018-Dec 2019



Source: Thomson Reuters Eikon, Macrobond, Porcimex, ALIC, Rabobank 2020

Figure 5: Pork prices in importing countries, Jan 2016-Dec 2019



Source: Thomson Reuters Eikon, Macrobond, Porcimex, ALIC, Rabobank 2020
 *Note: For display purposes, the South Korean won has been divided by 1,000.

China

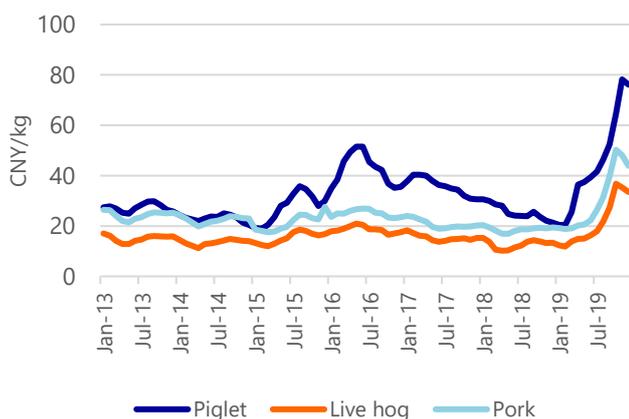
China's pork industry experienced unprecedented volatility in 2019, due to the impact of ASF (see Figure 6). We will see this volatility continue in 2020. The hog herd will likely continue to decline in 1H 2020, due to the smaller breeding herd in 2H 2019, but it has the chance to gradually build up in 2H 2020. Pork meat production will decline in 2020, compared with 2019. Prices will remain volatile, due to policies on production subsidies and the pork reserve, weather changes that may worsen disease pressures, restocking speed, imports, global supply and global prices, and consumers' responses within China.

Pork prices stabilized in the last few weeks of 2019 and beginning of 2020, partly because the government released pork reserves to curb prices ahead of festivals and partly because farmers typically sell hogs to get cash for festival celebrations (see Figure 6). However, we believe the price stabilization is temporary, and upward pressure will resume within Q1.

ASF continues to spread, but the pace of spreading has slowed. The impact is now mainly confined to individual farms, whereas the disease tended to devastate whole production areas in 2019. This lower impact is attributed to enhanced biosecurity and also the lower hog population density. Restocking continues but is mainly driven by large companies. China Agriculture and Rural Affairs data showed the sow inventory increased 2.2% MOM by the end of December, showing a potential recovery. We expect more farmers to start restocking in 2020, but as this is mainly done by keeping gilts, pork production will drop further in 2020, likely by 15% to 20%.

China saw strong imports in 2019. Total imports, including meat and variety products, are estimated to have reached 3.1m to 3.2m metric tons, close to a 50% increase YOY. The recent lowering of import tariffs on frozen pork from 12% down to 8%, effective January 1, is intended to encourage more imports. We expect imports in 2020 will maintain the strong momentum, rising from 2019 levels by 30% to 40%, which would set another new record. While European countries will continue to be the major suppliers, the 'phase one' trade deal between the US and China will facilitate more US pork shipments in the coming months.

Figure 6: Pork prices moving up quickly, Jan 2014-Dec 2019



Source: Boyar, Rabobank 2020

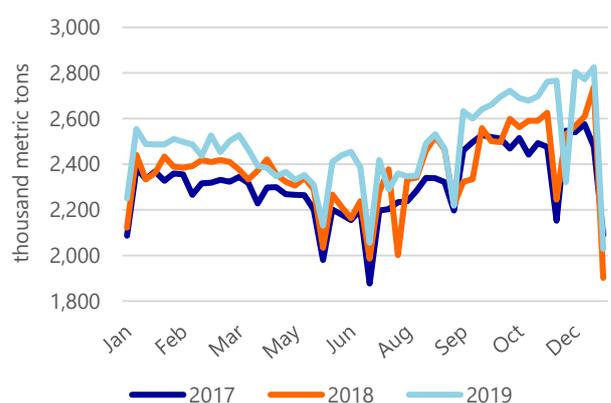
US

US pork production rose 4.8% in Q4 2019, and we see another year of growth ahead (see Figure 7). Modest growth in the breeding herd, up 2.1% in the latest Hogs & Pigs report, together with improved productivity, is expected to drive 3.2% YOY production growth in 2020. Herd health remains good overall and should add to continued productivity gains. Relatively inexpensive grain, better herd management, and continued genetic improvements are also contributing to the incremental growth, despite constrained returns given industry oversupply.

While markets continue to provide ample selling opportunities, some producers remain on the sidelines in the hope that stronger export demand will translate into even higher pork prices and ultimately better hog values. Export demand remains robust (up 21% YOY in November 2019) and should see further improvement on record shipments to China in 2020. Rabobank forecasts at least a 300,000 metric ton increase in pork exports to China, aided by the recent passage of the 'phase one' trade agreement, which removes potential administrative barriers to trade and targets USD 32bn in agricultural purchases. Exports of ground seasoned pork (GSP) to Japan will also improve with the gradual reduction in tariffs set out in the recent bilateral trade agreement, whereas pork exports to Mexico are likely to be flat in 2020 – even with the ratification of USMCA – as their economy slows and local production increases.

We remain cautious on the outlook for US hog markets, however, as the expected increase in production will outpace the capacity of the packing industry (particularly in Q4 2020). Labor challenges are expected to remain a constraint in 2020 and limit the packing industry's ability to respond to strong export demand by accelerating slaughter. Faster line speeds and the addition of a second shift at the remaining three plants are possible, but they are unlikely to fully offset the capacity challenges. Strong export demand and slightly tighter hog supplies in 1H 2020 will help stabilize the market, yet projected 2H 2020 supplies remain daunting and will be difficult for packers to absorb.

Figure 7: US hog slaughter, 2017-2019



Source: USDA, Rabobank 2020

Europe

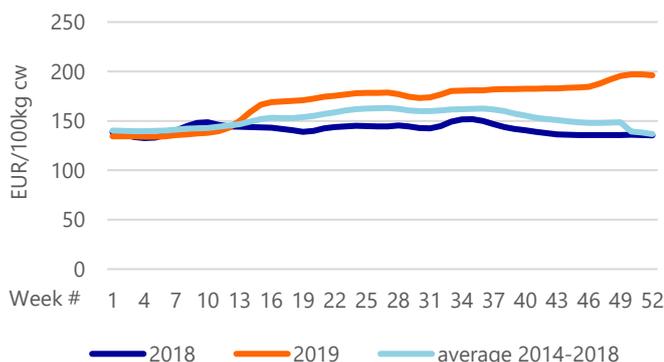
Pork production in 2019 lagged behind 2018 levels. Up to October 2019, production was down 0.9% YOY, despite strong pig prices. Some of the large pig producing countries, such as Spain, France, the Netherlands, and the UK, expanded production up to October 2019, whereas production in Germany, Poland, Denmark, and Belgium contracted. Production in Germany was constrained by regulatory pressure, whereas Denmark continued to shift focus toward exporting piglets rather than fattening pigs. The declines in Belgium and Poland were ASF related.

In December 2019, the EU carcass price was at record levels for the month (see Figure 8). The average carcass price approached a 30-year high set in 1997 (EUR 2.07/kg), sitting about 5% lower than that. Rabobank anticipates some correction in prices in the first few months of 2020. However, prices are expected to remain firm in 1H 2020, as the lowering of Chinese import tariffs on pork signals continuous strong demand from the country.

The EU reported its highest 2019 monthly pork exports in October (456,000 metric tons), with exports of the first ten months up 17.5% YTD. Exports to China in October were especially strong, at 314,000 metric tons, up 104% YOY. At the start of 2020, export demand is likely to soften, following the seasonal pattern, although all eyes are on the shipments to China for the post-Chinese New Year period. Slightly declining carcass prices and flat piglet prices at the end of December suggest at least a temporary break in the recent months' rising exports.

2020 holds both opportunities and uncertainties for EU pork. Ongoing high prices, supported by firm export demand, will lead to production increases in many countries. We expect EU pork production to increase by about 1% in 2020. On the other hand, the US-China trade deal may pressure EU pork in global trade. In addition, negotiations over the post-Brexit trade deal and the US-EU trade deal add uncertainty. ASF remains an ongoing problem for pork production and trade in Europe. Germany is firming up preventive measures, as outbreaks were confirmed in Poland in December, just 21km from the German border. On the positive side, Singapore, Vietnam, and India have lifted the ban on pork from Belgium, indicating that some countries are changing their stance on accepting regionalization policy for European pork.

Figure 8: EU weekly carcass price (Grade E), 2014-2019



Source: Eurostat, Rabobank 2020

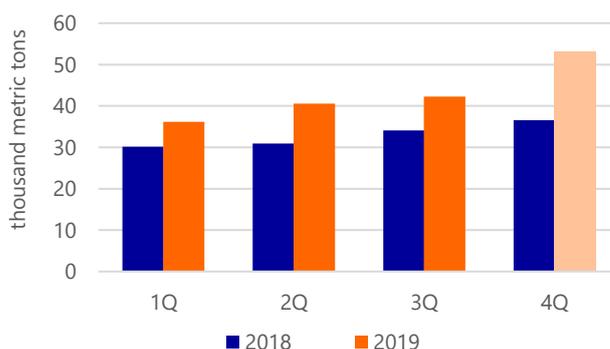
Mexico

Pork production was up 6% through November 2019, as gains in the breeding herd and productivity and a 2% YOY increase in weights offset losses resulting from herd health challenges. Producers responded to the expansion in packing capacity, growing the herd (particularly in the north). Rabobank expects ongoing expansion of the herd in 2020, with pork production estimated to be up another 7%.

Pork imports were up 11% YOY in Q3 2019 but fell 6.6% in October, as high prices began to negatively impact demand. Imports from Canada remained strong through October (up 17% YOY), whereas the US continued to struggle (down 3% YTD from a year ago). Even so, the US continues to dominate Mexico's import market, with an 85% share of trade. The US has been slow to recoup exports to Mexico following the removal of tariffs in Q2 2019 and may continue to struggle in 2020. Imports totaled 725,000 metric tons (CWE) YTD, just 0.9% behind the same period last year. We expect slightly stronger imports to end the year, with total imports in line with year-ago levels. We expect slightly lower imports in 2020, due to higher pork costs and larger domestic supplies.

Export markets remain exceptionally strong (up 28% through October), driven by triple-digit growth in shipments to Canada, China, and Singapore (see Figure 9). Japan remains the largest export market (72% of total), with Q3 2019 exports up 22% YOY and up 25% YOY in October. Exports to China surpassed 13,000 metric tons by October, up from only 1,500 metric tons in 2018. China has now overtaken the US as Mexico's second largest export market by volume but trails in total value. Sharp declines in YOY exports to South Korea and the US in October (both down 25%) reflect excess supply in those markets, along with weaker pork demand in South Korea following the discovery of ASF. For 2019, Rabobank projects a 30% increase in exports vs. year-ago levels (see Figure 9). In 2020, we expect another 12% increase in exports from Mexico on the back of continued strength in exports to China and Japan.

Figure 9: Mexican pork exports, 2018-2019



Source: Secretaría de Economía, Rabobank 2020

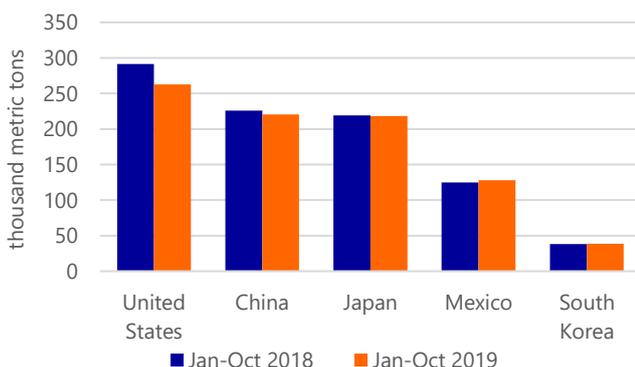
Canada

Canadian pork markets rebounded in Q4 2019, following the resumption of trade with China. While not recouping all of the lost volume, shipments resumed in recent weeks. At the same time, domestic demand remains strong and provides a consistent floor for the market. We expect markets to strengthen further in 2020, as production growth is expected to remain limited and export markets see incremental gains. The latest inventories suggest another year of limited expansion in the breeding herd but modest gains in weights and productivity.

Exports through October were down 0.6% YOY, to 1.04m metric tons. Notable gains in shipments to Mexico, Taiwan, and Hong Kong were able to offset a nearly 10% drop in shipments to the US and little or no exports to China during the trade ban (see Figure 10). For the year, China was still the second largest export destination for Canadian pork, responsible for nearly a quarter of all exports through October. Reports suggest exports have since rebounded and ended the year solidly, despite a sharp correction in Chinese prices. We expect record Canadian exports to China in 2020, with the region easily taking the lead as the country's number one export destination at the expense of secondary markets. We expect another decline in pork exports to the US, given surplus pork supplies in that market, and shipments to Mexico to remain volatile, as competition with the US should remain intense.

Slaughter in the east rebounded (up nearly 4% YOY) in Q4 2019, following PEDv losses earlier in the year. A surge in weaned pig exports to the US (up 13% YOY) from the east will limit any significant gains in the herd in 2020, but sharply higher hog prices should support our outlook for a 2% production rise in 2020. Slaughter in the west was up 1.6% in 2019 and should continue to trend higher in 2020. Gains in the breeding herd and more stable packing returns remain supportive.

Figure 10: Canadian pork exports, 2018-2019



Source: Statistics Canada, Rabobank 2020

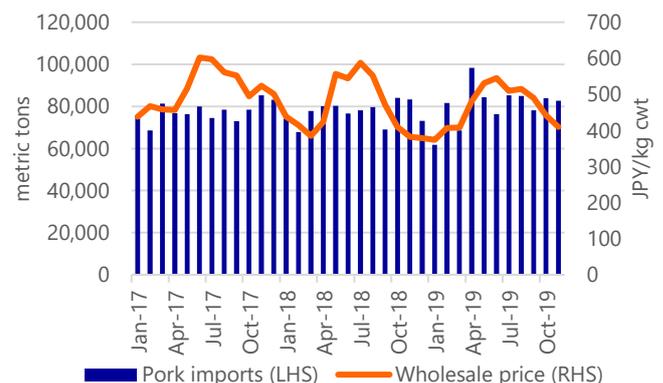
Japan

To enhance ASF preparedness, an amendment to the Act on Domestic Animal Infectious Diseases Control is being drafted to allow preventive culling. Under current law, prevention culling is permitted only for foot-and-mouth disease. Based on OIE data, Japan lost over 148,600 pigs since September 2018 due to classical swine fever (CSF) outbreaks. The country commenced its CSF vaccination program on September 13, 2019, and, up to the end of November, 53,330 pigs have reportedly been inoculated. Spraying of vaccines was also undertaken to target wild boars within the provinces under the program.

Japan's wholesale pork prices seasonally declined in Q4 2019 from the June peak of JPY 545/kg cwt, averaging JPY 410/kg cwt (+8% YOY) in November. Pork inventory has steadily increased, mainly on the back of higher imports, which account for 52% of Japan's pork supply. As of the end of November 2019, pork inventory was estimated at 213,000 metric tons, roughly 12% of 2018 demand (vs. 9% at the end of November 2018).

Japan's pork imports in the first eleven months of the year increased 4% YOY, to 885,886 metric tons (see Figure 11). Year to date, imported volumes from Mexico and Canada still booked the largest increases of 13,071 metric tons (+16% YOY) and 9,638 metric tons (+5% YOY), respectively, at the expense of US imports, which declined by 11,001 metric tons (-5% YOY). While the recent US-Japan trade deal may lift US pork imports, such increases are subject to safeguards and will remain gradual.

Figure 11: Japan pork imports vs. wholesale prices, 2017-2019



Source: ALIC, Rabobank 2020

South Korea

There have not been any new ASF outbreaks reported on swine farms since October 6, 2019, even as ASF cases in wild boars continued. Between mid-September and mid-November 2019, South Korea eliminated 446,520 farmed pigs through culling, depopulation in affected and high risk areas, and purchases in declared buffer zones. This number represented 4% of South Korea's herd and did not have a significant impact on supply, apart from seasonal drivers. Slaughter numbers seasonally increased in October, ahead of winter, and, up to the end of Q3 2019, South Korean herd numbers expanded 1% YOY.

Pork wholesale prices have recovered from a low of KRW 3,100/kg at the end of December to KRW 3,800/kg cwt in early January 2020. Pork prices should progressively increase ahead of this year's peak demand season (late June to early August) and on expectations of higher international prices.

South Korea imports almost 30% of its total pork consumption needs. In the first eleven months of 2019, pork imports had declined 8% YOY, to 388,582 metric tons (see Figure 12). US origins accounted for 41% (largest) of South Korea's total imports YTD, followed by imports from Chile (6%) at a distant second. Conversely, beef and chicken imports had risen by 3% and 14% YOY, respectively, over the same period.

Figure 12: South Korean pork imports vs. wholesale price, 2017-2019



Source: KMTA, Rabobank 2020

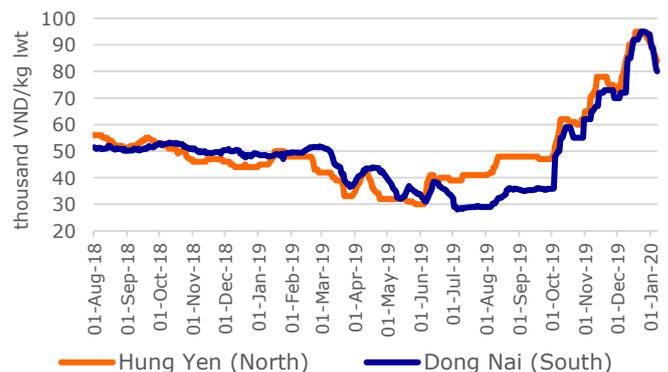
Vietnam

Vietnamese hog prices spiked in late December 2019 – peak demand season – but eased in early January, as farmers took profits ahead of Tết festivals (see Figure 13). Between August and December 2019, pork tenderloin prices also increased 80%. Despite this, herd rebuilding has not picked up significantly. Key deterrents include anticipated lower seasonal demand after Tết, the higher cost of production (i.e. working capital constraints), and the high risk of ASF relapse. We expect pork supply shortages and elevated prices to persist for the remainder of Q1 2020. While ASF outbreaks and relapse have continued, their frequency has slowed. A similar situation is expected in Q2 2020. Up to September 2019, pork imports (as monitored via originating countries) increased by 38% YOY, to 119,500 metric tons, with the majority (62%) of imports coming from the EU.

The clampdown on hog grey-channel trade into China – blamed for high prices in the north – has been in focus, although the volume is likely small. Northern and southern hog prices have now leveled, after a brief gap in early December due to the grey-channel trade of lower-priced hogs from Thailand (via Cambodia) into southern Vietnam.

By late December 2019, total pigs lost due to ASF were reported to have reached 5.95m. Our estimate is maintained at 7.5m (i.e. 27% of total herd). Our view is that 2019 pork production will reach 2.21m metric tons cwt (-21% YOY). In comparison to 2.44m metric tons cwt of projected 2019 consumption, Vietnam is likely to see a 0.23m metric ton cwt shortfall. This gap is expected to expand to 0.27m metric tons cwt in 2020, as we expect an additional 7% of Vietnam's swine herd to be lost.

Figure 13: Vietnamese pork prices, Aug 2018-Jan 2020



Source: Anova Feed, Rabobank 2020

Brazil

The worsening of ASF in China and elsewhere was a key factor behind the rapid growth of Brazilian pork exports that was recorded in 2019. As a result of high international demand, exports jumped by 16% in volume and 33% in revenue during 2019 YOY, and China increased its shipments from Brazil by an impressive 59% (249,000 metric tons) and surpassed Hong Kong as the largest destination for Brazilian pork (see Figure 14).

Another highlight of 2019 was the strong return of Brazilian imports to the Russian market. After lifting trade embargoes at the end of 2018, shipments increased by 430% (35,000 metric tons) in 2019, compared to the previous year.

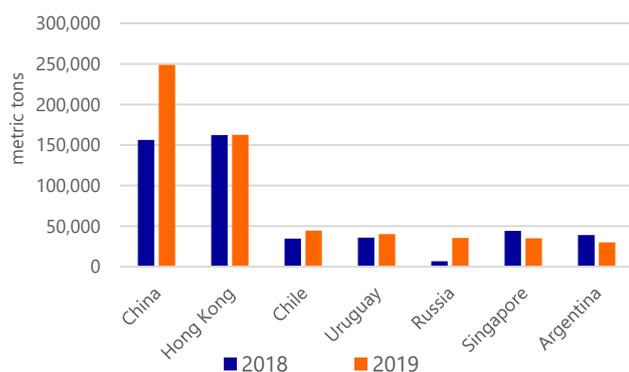
Rabobank expects further growth in 2020.

Domestic demand is forecast to continue to recover in 2020, especially given the more positive economic landscape that will lead to improved consumer purchasing power. On supply, pork production increased by around 3% in the first nine months of 2019 compared to 2018, according to the Brazilian Institute of Geography and Statistics (IBGE). During 2020, we project production growth of about 4%.

Because demand increased more than supply in 2H 2019, hog prices appreciated by 37% YTD and reached their highest recorded value. Likewise, pork prices rose 29% over the same period. In Q1 2020, we anticipate a rebalancing of domestic supply and demand, with the market testing consumer purchasing power.

On feed costs, rainfall delays and irregularities are expected to affect the productivity of the next crop, despite projected increases in corn acreage. Thus, production should remain stable, and as demand for grain is even higher than the previous year, feed prices have increased in recent months. Rabobank expects this scenario to persist through 2020. Compared to November 2019, prices have appreciated by 4%, but compared to the same period of 2018, the average price is 2% lower in 2019.

Figure 14: Main destinations of Brazilian pork exports, 2018 vs. 2019



Source: Secex, Rabobank 2020

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Justin Sherrard	Global Strategist	justin.sherrard@rabobank.com
Chenjun Pan	China	chenjun.pan@rabobank.com
Matz Beuchel	Europe	matz.beuchel@rabobank.com
Ben Santoso	Southeast Asia	ben.santoso@rabobank.com
Christine McCracken	North America	christine.mccracken@rabobank.com
Eva Gocsik	Europe	eva.gocsik@rabobank.com
Wagner Yanaguizawa	Brazil	wagner.yanaguizawa@rabobank.com
Andrick Payen	North America	andrick.payen@rabobank.com
Angus Gidley-Baird	Australia	angus.gidley-baird@rabobank.com
Beyhan de Jong	Europe	beyhan.de.jong@rabobank.com
Blake Holgate	New Zealand	blake.holgate@rabobank.com
Dennis Voznesenski	Australia	dennis.voznesenski@rabobank.com
Don Close	North America	don.close@rabobank.com
Gorjan Nikolik	Europe	gorjan.nikolik@rabobank.com
Nan-Dirk Mulder	Europe	nan-dirk.mulder@rabobank.com

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