IMS
MEAT FOR THE WORLD

The Global Meat Industry Facing the Challenges and Opportunities in Asia











Proceedings of the Fifth IMS Economics Workshop

Tokyo, Japan
11–13 May 2015

Comments from the Workshop Hosts

It was with great pleasure that we hosted the first IMS Economics Workshop in Asia, with Japan as an optimal location given its importance in the meat trade. The timing was also appropriate with the Trans-Pacific Partnership talks gaining widespread attention; not to mention perfect spring weather in Tokyo. We hope that the combination of pertinent trade issues and a beautiful setting, along with Japanese hospitality and cultural dining experiences made this a Workshop to remember.

We are appreciative of the very positive reviews from the participants, and want to thank our eight plenary speakers, along with more than thirty Day One presenters for making this Workshop such an informative experience. The Workshop also would not have been possible without the generous support of seven Japanese meat companies, whose logos are on page 2 of the publication.

The successful meetings were a product of continued tireless planning and support from Bob Bansback and Erin Borror, who ensured that this workshop was yet another invigorating gathering of global meat industry participants and analysts. Thanks also to all of the staff from ALIC and USMEF, and especially Leiko Shimane, Toru Yokota, and Jackie Boubin, for their hard work in organizing and carrying out the event.

In putting this publication together, the team has tried to capture as many as possible of the key points made in the various presentations and discussions. In doing so, they have not attributed comments to individuals; it has also not been possible to indicate where opinions expressed represented a consensus of those present or those of an individual contributor. Please also note that any views expressed in the publication should not necessarily be regarded as the official policy of IMS, USMEF or ALIC. With these provisos we hope that these proceedings do justice to the wide-ranging presentations and discussions which were had at the workshop.

The IMS Economic Workshops are unique and highly valued for the diversity of the participants, as well as the intimate setting, with time for discussion and networking — now we look forward to fostering more participation from Asia in future IMS meetings. Thanks again to all sponsors, participants and organizers. We hope you enjoy this synopsis of the Workshop and look forward to the next event in 2017.



Junji Sato
President
Agriculture & Livestock Industries Corporation



Philip M Seng
President and CEO
US Meat Export Federation

Comments from the IMS President

I was highly impressed by the quality of the attendance and discussion at the fifth IMS Economics Workshop in the attractive setting of the Meiji Kinenkan in Tokyo. These Workshops seem to go from strength to strength and in Tokyo we tackled a wide range of topics that are central to the strategic concerns of the worldwide meat industry. It was highly appropriate that we should hold the Workshop in Asia, where there has been such a spectacular growth in meat demand and world trade in recent years. We were grateful to have two excellent hosts, Japan's Agriculture and Livestock Industries Corporation (ALIC) and the US Meat Export Federation (USMEF) and on behalf of IMS I would like to thank most sincerely Junji Sato, President of ALIC and Phil Seng, President of USMEF for being such efficient and generous hosts. I would also like to express my thanks to the seven Japanese company sponsors of the event.

Finally, I'm grateful for the team who put together this publication, which provides a wider audience with some of the valuable content of the Workshop. I have great pleasure in commending it to you.



Guillaume Roué
President
International Meat Secretariat

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INTRODUCTION

The fifth IMS Economics Workshop took place in Tokyo from 11 to 13 May, 2015. Forty nine delegates attended representing countries from six continents. Participants were mainly economists, analysts and experts with particular meat industry knowledge from the countries concerned and also included livestock producers and meat processors. The Workshop took place at the Meiji Kinenkan, an attractive Convention Centre close to the Crown Prince's Palace in Central Tokyo.

The Workshop was divided into five sessions:

- A series of short presentations on country situations and issues of interest for the beef, sheep and pig sectors
- Future Developments in the Japanese and Chinese Markets
- Demand and Food Security in Developing and Emerging Markets
- Free Trade Agreements and their Implications
- Increasing World Food and Meat Supplies in a Sustainable Way. How Feasible is this?

In addition to the main programme, delegates had an opportunity to engage in two tours following the end of the Workshop. One tour enabled a group to spend some time in Tokyo Central Wholesale Meat Market, which included a good explanation of the meat supply chain situation in Japan. This tour also included a visit to the food department of the prestigious Mitsukoshi Department Store in the Ginza area of Tokyo. The other tour visited a Wagyu beef farm, a processing factory and a retail shop – as well as a typical market with shops selling meat and other food items. The tour also spent time in Kyoto to enjoy the cultural, artistic and attractive sights in this famous historical city.

The hosts for the Workshop were the Japanese Agriculture and Livestock Industries Corporation (ALIC) and the US Meat Export Federation (USMEF). The IMS would like to express its thanks to both organisations for arranging such an informative and enjoyable event; also to the seven Japanese sponsoring companies for their generous support.



Workshop delegates in the garden of Meiji Kinenkan

SESSION 1

Global and Individual Country Analysis

Opening welcome comments to delegates were made by Junji Sato, President of ALIC, Phil Seng, President of the USMEF and Guillaume Roué, IMS President. In this session there were a total of twenty eight presentations on beef, sheep and pigs in which presenters focussed on two or three issues of importance to their industries over the next two years. In addition there were special presentations on the impact of the Transatlantic Trade and Investment Partnership (TTIP) on European meat industries and a study specially commissioned for the Workshop on World Sheepmeat Developments to 2025. Some of the issues emerging from these presentations were:

General

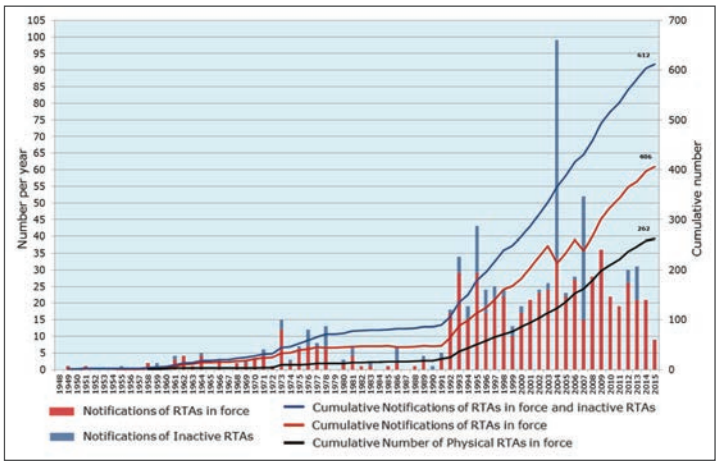
The **world economy** has been growing at a rate of 3–4% in the past four years – and this together with the 1% per annum rise in the world's population has contributed to underpinning steady increases in world meat consumption. However, a key driver for rising demand in developing and emerging economies has been the substantial increase in the numbers in the more affluent 'middle class' segments of their populations. This is linked with the increasing shift to greater urbanisation. For the major industrialised economies, there has only been a negligible increase in consumption – with more emphasis on the shifts between different meat categories, changing market structures and the stiffer challenges required for meeting the more sophisticated demands of societies and individual consumers. There was a recognition that the growing importance of China and other Asian economies had made an important impact on global meat demand and the world meat economies.

Important Impact of Government Policies

There were references to the influence of **political issues** on the meat situation in several markets. The Russian ban on agricultural product imports from the EU, US, Canada and Australia from August 2014 had an important impact on trade flows and prices for several countries – there was further concern when the ban was extended for a further year from August 2015. In Argentina, government export restrictions continued to incentivise production for the home market at the expense of overseas destinations. In addition to this, internal support policies continue to be influential in determining the supply response of livestock producers in some countries. The EU's reformed Common Agricultural Policy (CAP), which was introduced at the beginning of 2015 has had particular implications for the beef and sheep sectors. There is concern in several EU Member States that support payments will be steadily declining to 2020 although there is considerable variation in the CAP's application in different countries. However, of equal significance is the ending of EU milk production quotas and the consequential implications for future European breeding cow numbers.

In relation to **trade**, there were many references to the growing importance of Free Trade Agreements (FTAs), with their associated implications for livestock producers and meat packers and processors *(see Fig 1)*. It was stated that larger trading countries or those who were part of bigger trading blocs had an advantage over smaller countries in this respect. Some countries expressed regret that they were not part of any direct FTA and the lack of any significant FTA benefit from their membership of their wider trading bloc. However, other countries referred to advantages already obtained through FTAs. Despite the effectiveness of many FTAs in achieving tariff reductions, non-tariff barriers continue to be the sticking point in many of the negotiations.

Figure 1 Rapid Trade Growth in Trade Agreements



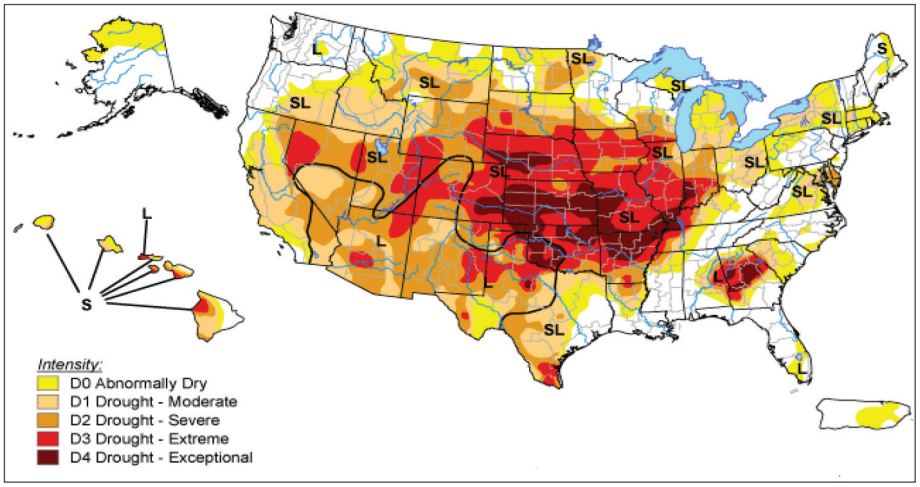
Source: US National Pork Board

Climatic factors still play a part in determining production volumes and patterns. The drought situation in the US in 2011/12 *(see Fig 2)* has had a big impact on current beef production; drought situations have affected cattle and sheep outputs in Australia and New Zealand. Brazil has also had one of its worst droughts ever with impacts on pastures and production costs. Animal disease has not been as prominent as in recent years although there are major concerns over the potential spread of African Swine Fever from Eastern Europe to the major pig production areas of Western Europe and from Russia to Asia. Porcine Epidemic Diarrhoea Virus (PEDv) had a major feature of the US pig market in 2014, although production is recovering strongly in 2015. Partly as a result of the experience with PEDv, the US is now investing $15 million in a national animal health centre to improve disease surveillance. Several other country reports referred to disease management initiatives and improved bio-security measures.

Most Countries' Currencies Depreciated Against the US Dollar

Exchange rate movements have impacted on competitiveness for several countries. Principally as a result of the end of the 'mining boom', the Australian$ had declined significantly since January 2013 *(see Fig 3)* which has had a positive influence on export volumes and livestock prices. The Brazilian Real has continued its decline against the US$ and fell in value by almost 30% between mid-2014 and mid-2015

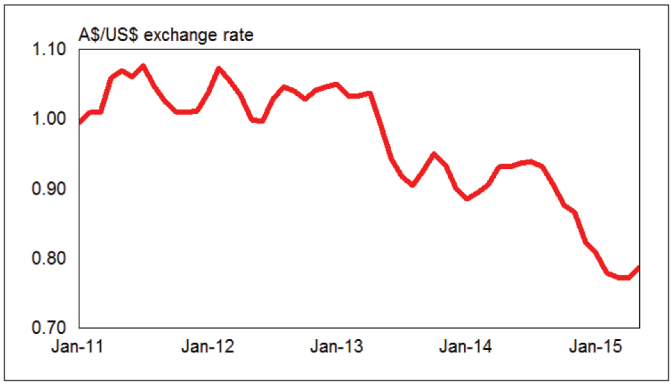
Figure 2 US Drought Monitor



Source: CattleFax

– this had much to do with the current poor performance of the Brazilian economy; there was also a reduction in value of the Japanese yen. By contrast, the Chinese RMB had risen in value against most currencies in recent years up to the early months of 2015. Within Europe, the Euro declined in value against the US$ mainly due to the weakness of the Eurozone economies and the Greek crisis; however, the stronger rate for £sterling has had an adverse affect on UK exports to other European markets.

Figure 3 Declining Value of the Australian Dollar



Source: MLA

Several countries reported measures taken to improve the **animal welfare** situation, recognising that this issue is of growing concern to consumers. Lobby groups have also been active in challenging industries and this has resulted in industry groups engaging to a greater extent with these organisations. In Brazil, the pig industry has initiated discussions between farmers, industry and Government. In Australia, the pig industry is stepping up its research on animal welfare issues.

Sustainable production in the face of environmental and climate change challenges featured in some of the presentations. 'Pathways to Long-Term Sustainability', a report commissioned by one group of farmers highlighted the lack of profitability in the New Zealand industry and some opportunities for productivity improvements through better management decisions and improved information flow. In Ireland, there continues to be strong support for the Origin Green scheme with its sustainability commitment right down the supply chain. Uruguay also emphasises the importance of its national product, which is backed up by the guarantee of no hormones or antibiotics, 100% mandatory traceability, as well as being grass-fed and open range. In the UK, the beef and sheep industries were shown to have reduced their CO_2 equivalent emissions significantly in recent years. In China, new environmental laws have been introduced targeting the livestock industry.

Feed Costs Favourable for Most Countries

Relatively favourable **feed** costs have been welcomed by industries in many countries – particularly in the pig sector where there has been greater pressure on livestock prices. However, producer confidence remains cautious in some countries in response to the increased price fluctuations in recent years. There were several reports on initiatives to improve production efficiency in all red meat sectors. Canada's National Beef Strategy *(see Fig 4)* sets a target of a productivity increase of 15% by 2020. In the US, emphasis was put on the importance of new technology at farm, processor and end purchaser level as a means of raising efficiency levels. Policies in China include a forage-saving animal husbandry development plan.

Figure 4 Canada's National Beef Strategy: Industry Pillars and Goals



Source: Canadian Cattlemen's Association

There was general concern about the **inaccuracy and unavailability of statistical information** in some countries. This made detailed analysis difficult and was also concerning when measuring progress in important areas such as sustainability. Trade data also suffered from the fact that there was a significant amount of unrecorded data - notably exports and imports taking place through the 'grey' channels. It was encouraging that steps were being taken to eliminate this distortion but progress was seemingly very slow – particularly in relation to trade in Asian markets.

Finally, there were a number of other **consumer issues** which featured in the discussions on markets. In China, there have been several food scandals in recent years; this has led to a further tightening of the Food Safety law which was due to be effective from October 2015. Imports would be subject to the same requirements. In Japan, important structural changes have been taking place in the consumer market with increased sales through food service outlets and a reduction in household consumption. A greater emphasis was apparent on the need for quality assurance and branding; in addition, industries were addressing dietary and nutritional challenges.

Beef

The beef and sheep session was moderated by Uruguay's Pablo Caputi, INAC, Uruguay's National Meat Institute Director of Information and Economic Analysis. World beef production has been relatively stable over the past three years according to FAO's figures; this has been despite relatively high prices since 2011 and the comparatively low feed and other costs of production in the past two years. One prime reason for the lack of supply response had been the droughts which have occurred in major producing countries – particularly the US and Australia. In addition, beef production even with these better price levels is not profitable relative to other enterprises in several parts of the world. However, higher global production is forecast in 2016 and an even more significant increase is predicted in 2017 when most major producing countries expect to be in an expansion phase.

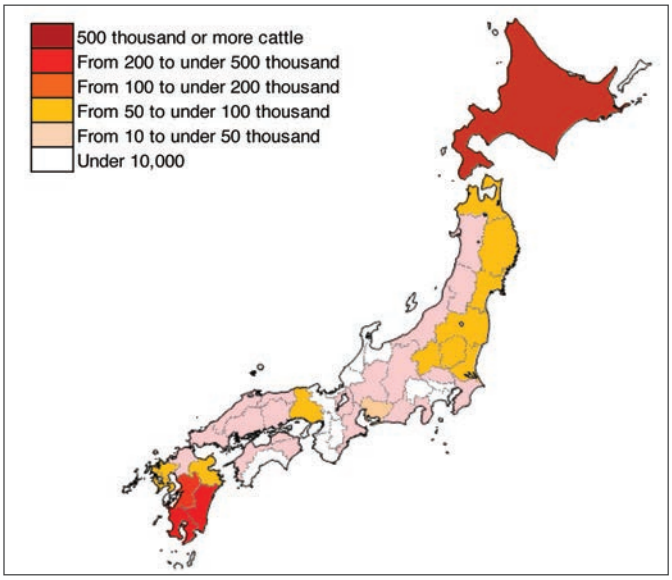
The presentation on the beef situation and outlook in **Japan** *(see Fig 5)* suggested some changes in policy and structures. At present beef production takes place in the north and far south of Japan. In recent years, production has been steadily declining with little change in farm size and a steady increase in the age of beef producers – currently 66 years. Government strategy was to increase farm size, raise productivity levels and enhance the prominence of the Wagyu breed. There is an expectation that any agreement reached in the TPP discussions will help to accelerate these trends. Beef consumption is forecast to reduce in line with the future population decline – but is nevertheless expected to retain its share of the total meat market.

Major Growth in Asia's Imports

Elsewhere in **Asia**, there was a different story – an important theme being 'Asia's exploding beef import bill', *(see Fig 6)* which in 2014 was estimated to amount to US$13 billion, more than double the value of beef imports five years earlier. In **China**, beef production has not been able to keep pace with the exceptional growth in demand and some forecasts suggest that, by 2020, imports might account for as much as 30% of total consumption. Much of this will depend on the success of the Chinese development plan, which is intended to increase beef production by 10% between 2015 and 2020.

Key elements of the plan include an increase in the amount of grain-finishing of beef production, improved genetics and more effective sourcing of beef from the dairy herd. In two other Asian beef producing countries, **Vietnam and Thailand**, cattle herds are actually declining. Elsewhere, policies in some Asian countries are torn between the desire to maintain self sufficiency on the one hand - and meeting growing consumer demand on the other. As an example, Indonesia is pursuing the production of all its beef needs but is still currently forced to import one eighth of its consumption. The overall conclusion was that the Asian market will remain an important beef import market for many years to come.

Figure 5 Key Japanese Cattle Raising Regions



Source: ALIC

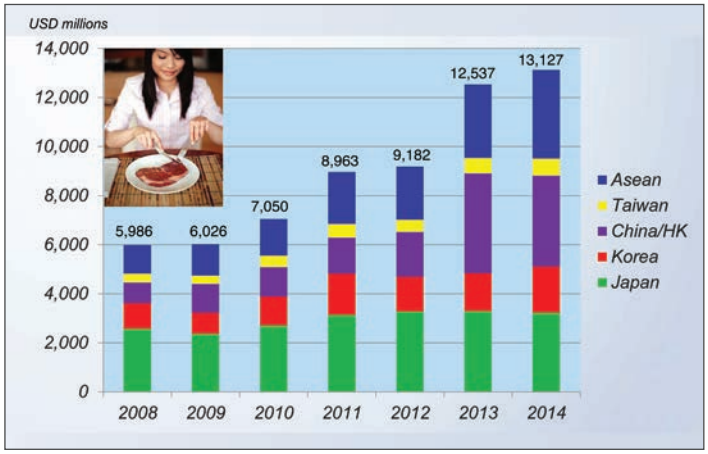
Growth of One Million Tonnes in US Production

The US is the world largest beef producer and its beef herd in January 2015 started to expand for the first time since the 1990s; by 2017, it is forecast to be 7% higher than in 2014 reflecting two years of good profitability for cow-calf producers. Production will be lower in 2015 while more breeding animals are retained; however, latest forecasts indicate that by 2017, US beef production could be 11.9 million tonnes, 1 million tonnes more than in 2015 *(see Fig 7)*, and the highest level since 2010. Although this exceptional growth is a positive sign for the US industry, it also gives rise to some challenges; in particular, will there be sufficient profitable export opportunities and will domestic demand and prices hold up in the face of competition from competing meats and other protein food categories? Prices for fed cattle in **Canada** are also firm – and at higher levels in real terms than at any time since 1987; there is expectation that Canadian beef cow numbers could also be about to increase for the first time since 2005.

Brazilian Exports to Exceed Two Million Tonnes in 2015

Prices in national currency terms have also been rising in **South American countries**. This has been caused by currency depreciations against the US$ but also due to the strong global import demand. **Brazilian** beef production is forecast to be

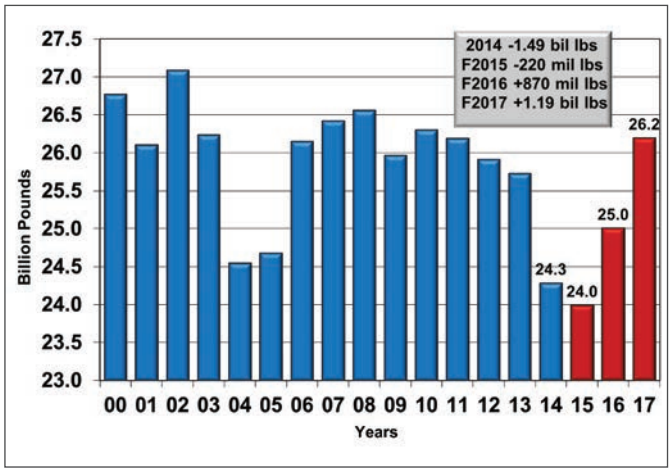
Figure 6 Asia'a Exploding Beef Import Bill



Source: USMEF

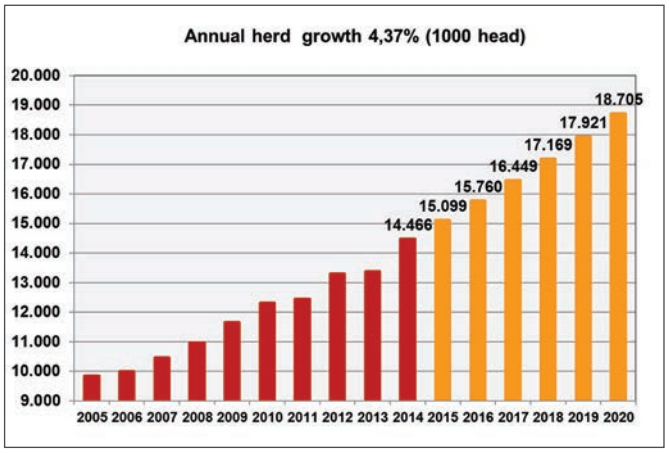
slightly higher in 2015 than last year – earlier expectations of a sharper increase were changed following an assessment of the impact of the drought situation. They have experienced steady growth in productivity although only 10% of their production is from feedlots. Exports in 2015 are forecast to exceed 2 million tonnes, the highest level for over five years – Brazil remains the world's second largest beef exporter after India. **Argentina's** breeding herd is also expanding and export volumes have been steadily increasing since 2011; despite this, current exports are at only one third the level of 2009 with China being the main destination. In **Uruguay**, the cattle herd is expanding with production levels showing a steady rise; despite this, there is overcapacity in the meat plant sector. Exports to China are rising but at the expense of reduced volumes being sent to Russia. Foreign investment in the industry is increasing and concerns are being expressed about how this will be compatible with further developing the strong country brand of Uruguay beef. **Paraguay** *(see Fig 8)* has now become the world's sixth largest beef exporter. Over half its exports are sent to the Russian market. It has infrastructure challenges as it develops its export business – not least due to the fact that it is a landlocked country.

Figure 7 US Commercial Beef Production



Source: USDA, CattleFax

Figure 8 Projected Growth in Paraguayan Cattle Herd to 2020

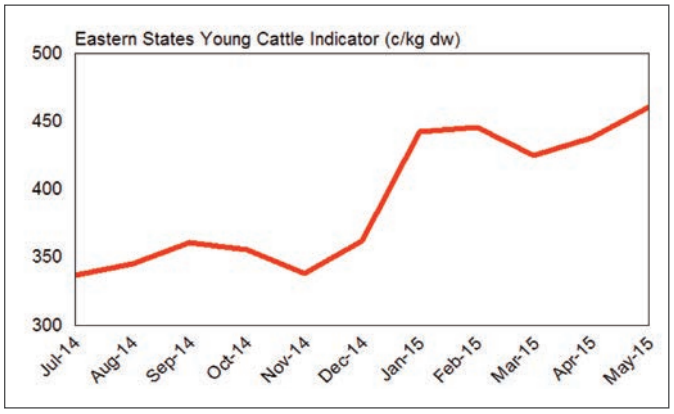


Source: SENACSA

Australian Beef Production to Increase again from 2017

The current drought in **Australia** caused heavy slaughtering in 2013/14, when beef production reached record levels. More average rainfall conditions are now being experienced in New South Wales and Victoria. Despite this, the cattle herd, which is now at its lowest level since 2003, is not expected to start recovering until 2017. Cattle prices remain buoyant *(see Fig 9)* due to the depreciation of the Australian$ against the US$ and the high prices on export markets. Exports were at record levels in 2014 with particular growth in the volumes sent to the US, China and other Asian markets. **New Zealand** beef prices have also been at high levels – however, over the longer term, beef prices have not increased as strongly as dairy prices despite the current slump in world milk product prices. At present, beef cattle numbers are relatively stable.

Figure 9 Australian Cattle Prices Have Risen Significantly

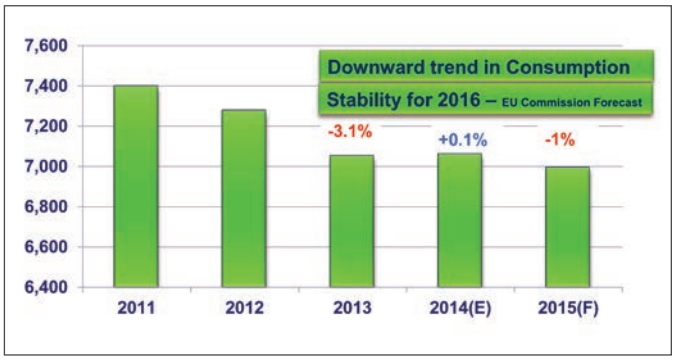


Source: Meat & Livestock Australia

Beef production levels in **EU countries** have remained comparatively unchanged – although there have been stronger variations in different member states. Much EU beef production has traditionally come from the dairy herd, although in recent years

dairy cows have declined and beef cows increased. With the ending of milk quotas, it seems likely that this could be reversed and the dairy herd will increase relative to the beef herd. There could also be a shift in the location of dairy cow numbers towards the more efficient producers in Northern Europe. The new CAP has also allowed greater flexibility to individual member states, which enables some to make use of limited 'coupled subsidies' or to shift funding between the rural development programme and direct support payments. Beef consumption is expected to decline steadily as well as export volumes *(see Fig 10)*.

Figure 10 EU Beef Consumption, '000 tonnes



Source: EU Beef Forecasting Group

Beef production in **Russia** is expected to show a 2% decline in 2015 – however, imports are forecast to drop by at least 9% - the result being significantly lower beef consumption levels (less than 17kg per person per annum). The Government is providing major support to production initiatives and its longer-term policy is to increase home production and reduce dependence on imports. However, the dairy herd, which is an important source of beef supplies, is declining and it is expected that there will continue to be longer-term import demand for manufacturing grade beef. In the short-term, though, the current depreciated rate of the rouble has made the Russian market relatively less attractive compared to alternative import destinations.

Sheep

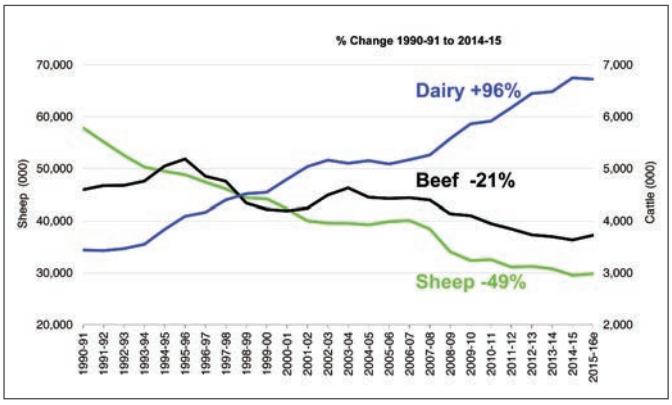
World sheepmeat production is likely to increase by a small amount in 2015 despite lower volumes forecast in Australia and New Zealand due to the drought situation. Over three quarters of sheepmeat production is in developing and emerging economies and small increases are expected for production in China as well as in some African countries. World sheep prices have eased down in 2015 – partly due to some reduction in demand from China.

New Zealand Productivity Continues to Improve

In **New Zealand**, production in the 2014/15 season was estimated to be slightly lower than in the previous twelve month period – although lamb marketings were higher in the early part of the season due to the drought situation. Productivity levels continue to improve – as has consistently been the case over the last twenty five years. Despite a reduction of 51% in the number of breeding ewes during this period, total lamb production only declined by 8%; the improvements are due to better lambing percentages, more lambs sold per ewe and higher carcase weights. However, the industry is still concerned at the shift from lamb to dairy production in recent years *(see Fig 11)* reflecting the relatively better profitability in the dairy sector, particularly in the South Island. Although this shift may be about to cease in view of the slump in dairy product prices on world markets, it is unlikely that producers who have converted will revert to sheep farming in the near future.

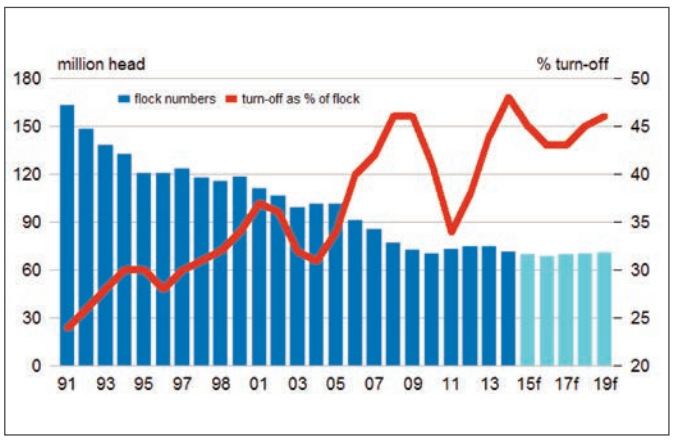
In **Australia**, there is a steady transformation from wool producing to a meat producing flock following the marked reduction in wool returns *(see Fig 12)*. This means that despite the effects of the drought and the resulting lower levels of lamb production in 2015, forecasters are confidently expecting increased production by 2017 and a further record level of lamb production by 2019. Lamb exports rose to record levels in 2014, with major increases to China and the Middle East. With lower production and reduced import demand in 2015, there was a small reduction in export volumes although exports were still higher than in any year prior to 2014. Despite reduced price levels in 2015, they are still high enough to encourage increased production.

Figure 11 Sheep and Cattle Numbers New Zealand



Source: Beef + Lamb New Zealand

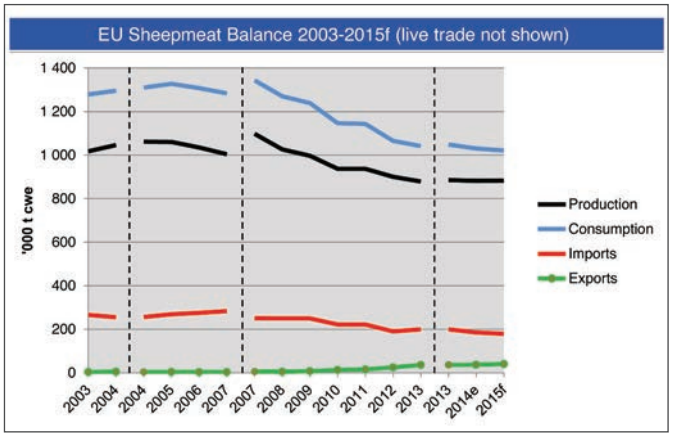
Figure 12 Australian Flock Transforming from Wool Producing to Meat Producing



GLOBAL AND INDIVIDUAL COUNTRY ANALYSIS

Higher world price levels in recent years have not been sufficient to encourage increased production in **South American countries**. The same has been true in the **United States** and **Canada**. In the **EU**, production, which has been steadily declining in recent years, was forecast to be stable in 2015, *(see Fig 13)*. Higher production in the UK and Ireland is likely to be offset by lower levels in the Netherlands and Greece. Although prices in some EU Member States have been relatively well maintained, the UK sheep price declined significantly from the second quarter of the year onwards, partly influenced by the strength of £sterling against the Euro. There continues to be EU industry concern about declining sheepmeat consumption in Europe, which is particularly attributed to the older age profile of lamb consumption in major consuming countries such as France and the UK. This has led to the EU Commission agreeing to part fund promotion campaigns targeted at younger consumers in selected EU countries.

Figure 13 EU Sheep Production Decline Slowing Down



Source: GIRA

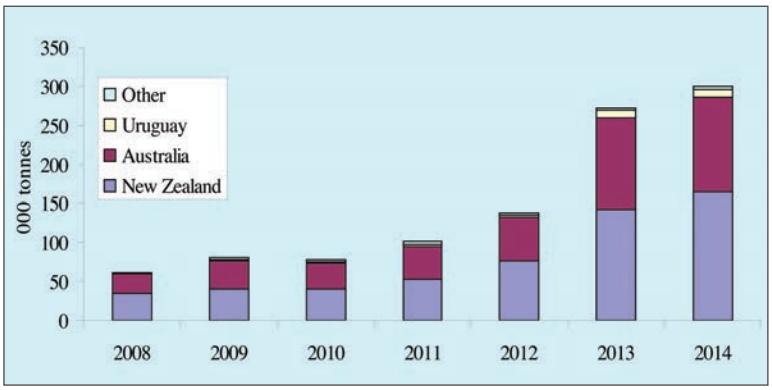
Chinese Sheepmeat Imports Forecast to Continue Increasing

A Special Study – the World Sheepmeat Market to 2025 - commissioned by the IMS Economics Committee and funded by AHDB Beef and Lamb was presented and discussed at the Workshop. The background to the report was the need to understand the changing dynamics for the world sheep economy resulting from the significant purchases of sheepmeat by China on the world market in 2013 and 2014 (see Fig 14). Were these imports likely to be a 'one-off' situation while China sought to expand its domestic production? If so, what were the implications for world prices; also for major sheepmeat importing and exporting countries? The main conclusions of the research project were:

- *China was likely to increase its production during this period. In addition to current initiatives there would also be joint ventures with existing sheepmeat supplying countries*
- *However, due to growing demand, China would also be likely to continue to increase its purchases of sheepmeat in the period up to 2025 (despite reduced volumes in 2015) - but only gradually*
- *The main suppliers to China would remain Australia and New Zealand – although Australia would be a bigger beneficiary as its lamb exports were forecast to rise much more than those from New Zealand*
- *World sheepmeat prices would increase in real terms over the period till 2025 but by less than 1% per annum. This would be insufficient to encourage further countries in South Asia, Eastern Europe, North Africa or the EU to develop sheepmeat exports to compete with Australia and New Zealand in the Chinese market*
- *A further important reason why Australia and New Zealand would be the major exporters to China in the 10 year period were their Free Trade Agreements that had already been negotiated*
- *There would be relatively small implications for existing sheepmeat importing markets in the Middle East, the US and the EU. Australia and New Zealand might be reluctant to reduce their exports to these markets significantly. Other more regional solutions might emerge, eg UK and Ireland increasing their exports to other EU countries.*

In addition to these main conclusions, the study explored two further scenarios, which took account of different price and trade scenarios for world markets.

Figure 14 Chinese Sheepmeat Imports, 2008–2014



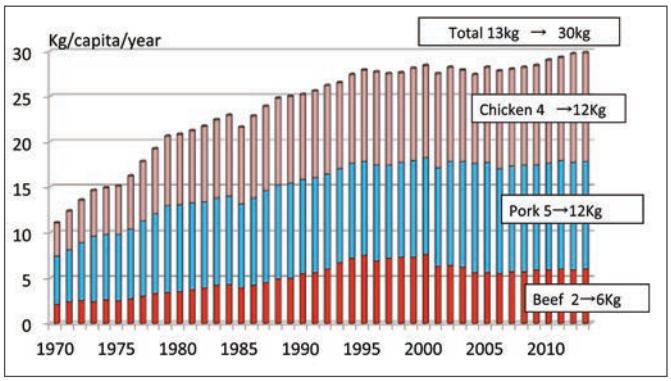
Source: GTIS, China Customs, HK Census and Statistical Dept

Pigs

The pig session was moderated by Jurgen Preugschas, from Canada Pork International and a member of the Executive Council of the International Meat Secretariat. World pork production is forecast by GIRA to increase by over 1% in 2015 with a strong recovery in world trade (+3%) following the drop in 2014 due to the sharp reduction of imports into the Russian market. However, pig prices in the first half of 2015 were at much lower levels than in 2014 in most major producing countries except for China. For most pig producers, feed costs have been at reduced levels, which partly offset the adverse impact of reduced pig prices.

Japanese consumption of pork *(see Fig 15)* has more than doubled in the past forty five years – a period during which the proportion of rice and fish in the national diet has steadily reduced. However, since 1985, domestic pork production has declined while imports have increased and now account for almost 50% of the total Japanese pork market. The industry is now facing the challenge of a reduction in the size of the total market in the next few years in view of the decline in the population. It is keen to maintain domestic production at its current level alongside steadily lower volumes of imports. The strategy for achieving this will be to encourage the increase in farm size, reduce costs of production (which are currently almost double those in the US) and promote the J Pork brand *(see Fig 16).*

Figure 15 Japanese Meat Consumption, 1970–2014
on a boneless basis

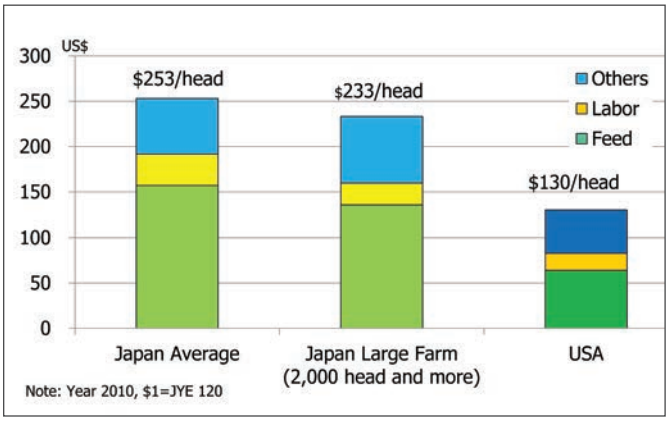


Source: Ministry of Agriculture and Fisheries of Japan

New Environmental Measures Introduced in China

In **China**, pork production is increasing despite the fact that its hog/corn ratio appears to be below breakeven level. Although reduced production is forecast for the second half of the year, official figures suggest an increase of 1% to 57.8 million tonnes in 2015. This would represent a rise of 10 million tonnes since 2008. Government support continues for the pig sector, with particular encouragement for industrial scale enterprises. However, pig farmers are facing additional costs with the introduction of Environmental Protection laws and Water Pollution Prevention plans *(see Fig 17).* Chinese pig producers do not seem to be benefitting from lower world corn prices at present as there is a widening gap between Chinese and world corn prices. Pork imports so far in 2015 have been at higher levels but over the past four years they have been relatively stable at around 1.4 million tonnes.

Figure 16 Japanese Costs of Pork Production Higher than those in the US



Source: ALIC

Elsewhere in Asia, there is rising pork consumption in **Korea**, where imports account for about a quarter of the total market. In 2014, there was a significant increase in imports from European countries at the expense of North American suppliers which was heavily influenced by the Russian import ban. In official figures published about targets up to 2022, Korea is aspiring for its pork self-sufficiency ratio not to drop below 77%. In the **Philippines**, pork production has been steadily increasing in recent years; however, imports have also been rising lately encouraged by the significant reduction in world prices and it is not clear what the future balance of the market (between production and imports) will be. **Australia** is also a major import market for pork, with imports accounting for around 45% of the market. However, the domestic industry is investing in an impressive programme of research, development and marketing – as well as addressing important consumer concern issues *(see Fig 18).*

Figure 17 New Environmental Laws



Source: USMEF

Figure 18 The 2017 Industry Commitment

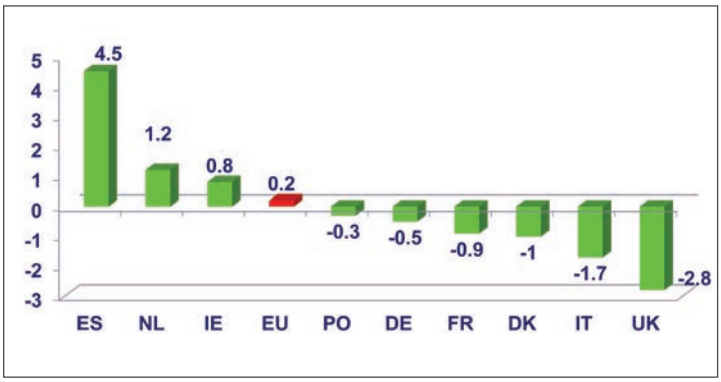


Source: Australian Pork

EU to Remain World's Largest Exporter in 2015

The **European Union** pig industry has continued to experience lower price levels following the loss of the Russian market in 2014. In May EU price levels averaged about 15% less than a year earlier. However, a small rise in production is forecast in 2015, with some variation between different Member States' breeding sow numbers *(see Fig 19)*. France reported that it has experienced a drop in production of 5% over the past eight years; it indicated that other Member States had become more competitive due to less strict environmental rules and lower labour costs. EU exports did not increase in the first half of the year despite the weakness of the Euro; this resulted from strong competition from other suppliers – particularly to the Asian markets. Nevertheless, the EU was still likely to be the world's biggest pigmeat exporter in 2015, with domestic demand within Europe remaining weak. There continued to be concerns in the industry about the threat of PEDv and the potential spread of African Swine Fever.

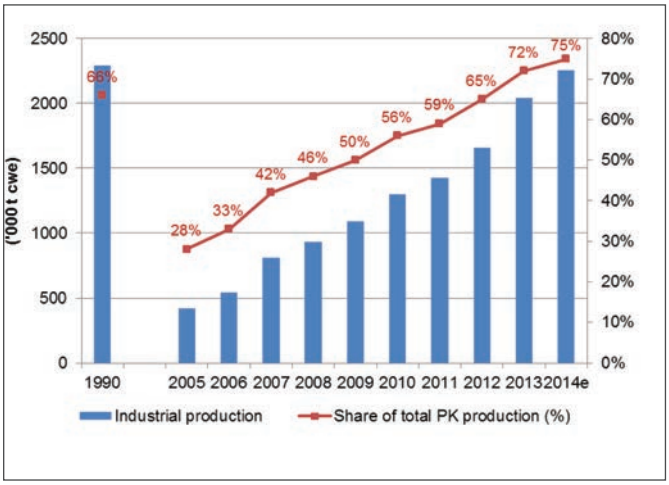
Figure 19 EU Breeding Herd Marginally Higher



Source: Bord Bia

Russia's pig production has increased impressively in recent years and now exceeds 3 million tonnes. An estimated 75% of this production is on industrial units compared with only 28% ten years ago *(see Fig 20)*. Russian government investment has been instrumental in achieving this; further investment projects have been announced but may have to be put on hold due to the financial crisis and the drop in value of the Rouble. Russian pigmeat imports declined to just over 500,000 tonnes in 2014 from their peak level of over 1 million tonnes in 2012; a further decline is forecast in 2015 – particularly due to the depreciation of the Rouble causing prices to be unattractive for exporting countries. The Russian pork price in US$ dropped by an estimated 45% between May 2014 and March 2015. There are queries about the ability of the Russian industry to achieve self-sufficiency – not just on financial grounds but also due to the spread of African Swine Fever.

Figure 20 Russia Industrial Pork Production, 1990–2014e

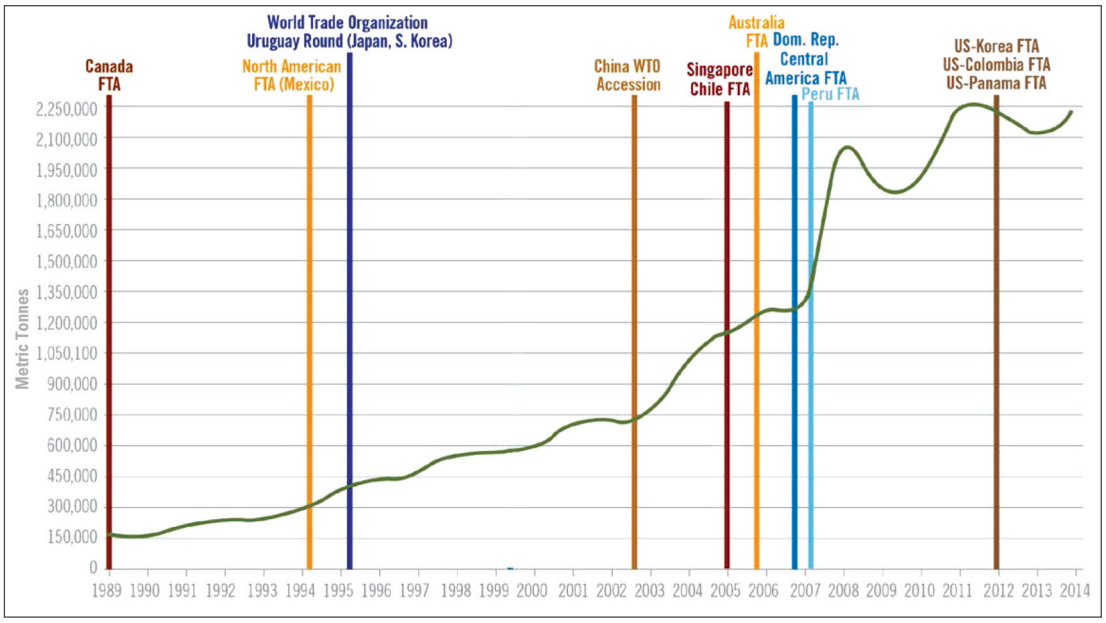


Source: GIRA

North American Focus on Trade Issues

US production should increase steadily in future years now that the PEDv situation is under control. However, water availability is likely to be a key factor in the future location of pig production. The US National Pork Board has an ambitious strategic goal by 2020 – to increase US pork exports by 1.22 million tonnes in volume and by US$ 3.1 billion in value from the levels achieved in 2014. This represents annual average increases of 9% per annum over the 6 year period. Current forecasts for 2015 indicate a rise of over 6% in volume. Prices so far in 2015 have been at particularly low levels – at times 50% less than in 2014. The very weak market for pork by-products has also contributed to this sharp reduction. The FTAs already agreed and those yet to be concluded (particularly TPP) are seen to play a veryimportant role in helping the industry achieve these challenging goals *(see Fig 21)*. The **Canadian** pig herd has increased slowly since 2012 and the number of pig farms appears

Figure 21 Growth of US Pork Exports Due To Trade Access

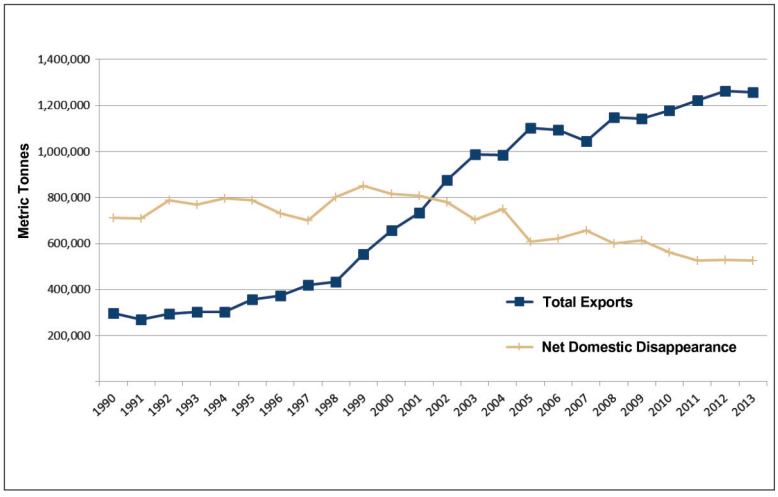


Source: US National Pork Board

to have been relatively stable during this time. Exports now account for two thirds of Canadian pork production compared with only 45% back in 2000 *(see Fig 22).* Not surprisingly, 'Trade Focus Areas' and animal health status are of vital importance to the industry. In relation to trade issues, implementation of the Canada Korea FTA is seen to be important in order to give equivalent tariff concessions, as the US and EU have secured in their FTA deals. In addition, there is much focus on the outworking of the Canada-EU FTA and the possible final agreement on TPP.

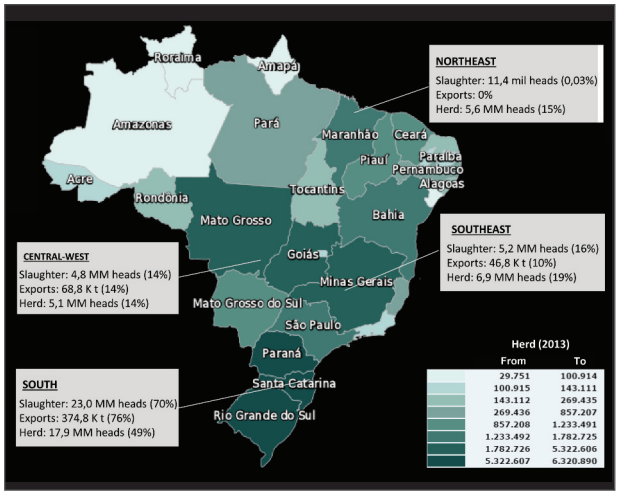
Although **Brazil** accounts for only 3% of world pork production and 2% of global consumption, it is the world's fourth largest pork exporter, accounting for 8% of world exports. Forecast production in 2015 is expected to be at about the same level as in the previous year – following a decline in pig prices in line with world market developments. However, there is great potential for expanding production in future years, particularly in the Midwest *(see Fig 23).* There is a vast geographical area, with good access to water, favourable climate and a low cost of labour. Industry interest in pork production is evident so long asthere is good access to export markets. JBS acquired the Seara company and as a result is likely to become a bigger global player in pork. Exports from Brazil were originally expected to rise in 2014/15 because of improved access to the Russian market; however, exports in more recent months have been at lower levels due to the collapse of the Rouble.

Figure 22 Canadian Pork Industry



Source: Canadian Pork Council

Figure 23 Regional Distribution of Brazilian Pig Industry



Source: CEPEA

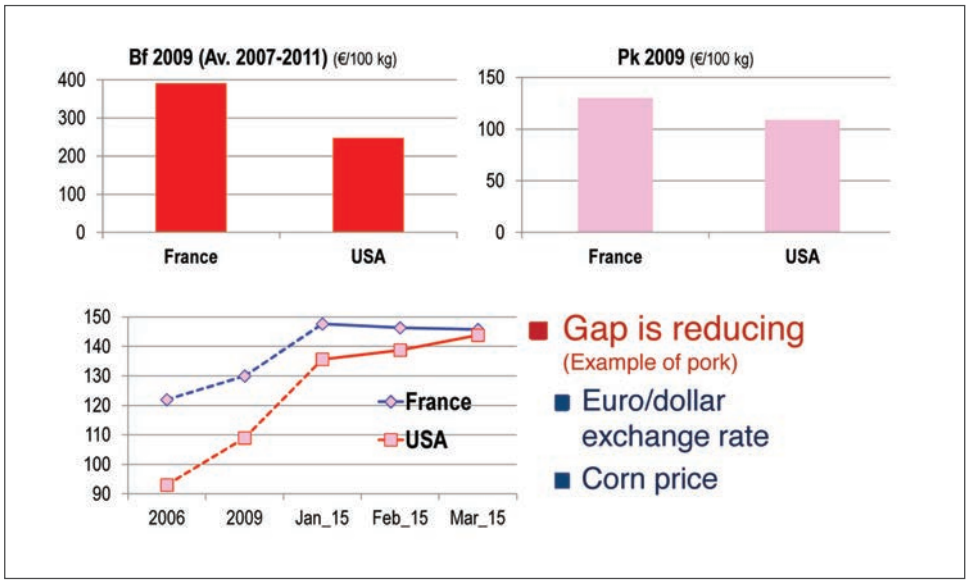
Big Challenges for EU Meat Sector if TTIP is Agreed

A special presentation was made about the context and consequences of a Transatlantic Trade and Investment Partnership (TTIP) agreement (between the US and the EU) on the meat sector carried out by economists in three French industry research institutes - Idele, ITAVI and IFIP. The comments below relate to the beef and pork sectors only although the work also covered dairy products and poultrymeat.

The main conclusions were:

- *There are differences in the relative importance and scale of different meat categories in the respective countries ie pork production was much larger in the EU industry (although export volumes were similar) but beef in the US is a larger industry than in the EU*
- *Trade between the EU and the US is relatively small for pork and beef in both directions although there is a more significant volume of pigmeat exported from EU to the US*
- *The US has a cost of production advantage for both meat categories but this is narrowing and in any case partly depends on the US$/Euro rate (see Fig 24)*
- *The study concludes that future trade in the* **long-term** *will depend on demand factors (for different cuts) and competitiveness (cost factors)*
- *Although there are big differences in tariffs between the US (relatively low) and the EU (much higher), the key barriers on both sides are non-tariff ones*
- *There are major differences in the approaches taken in relation to rules and standards. For example, in relation to food safety issues, the EU still operates under the precautionary principle in many areas, whereas the US is more risk based and proportionate in its approach*
- *A final problem to overcome is the EU's approach to a number of areas such as food safety, quality, environment etc. being a response to 'citizens' expectations'. European legislators and the industry are concerned that if consumers' confidence is broken, this will have long-term implications for meat consumption. The US approach is generally different – and the US Government has a tendency to work more with industry to find solutions.*

Figure 24 USA has a Cost Advantage at Farm Level But ...



Source: Idele, ITAVA, IFIP

SESSION 2

Developments in Japanese and Chinese Markets

In Session 2 there was a focus on the future situation for meat in Asia's two largest markets, Japan and China. There were keynote presentations from Masayoshi Honma, Professor of Agriculture and Resource Economics at the Graduate School of Agricultural and Life Sciences at the University of Tokyo and Junfei Bai, Professor at the College of Economics and Management at China Agricultural University. The session was moderated by Phil Seng, President of the US Meat Export Federation.

Ambitious Plans to Reform Japanese Livestock Sector

Japan is going through a period of economic change, with the basis of this being the policy of 'Abenomics', named after the Japanese Prime Minister, Shinzō Abe. The objective was to move the Japanese economy away from the relative stagnation of the past two decades to a growth strategy stimulated by monetary and fiscal policy and involving structural reform. An important element to this reform was the need to use the TPP as a spur for structural change in the agricultural sector. Prime Minister Abe was on record as saying that 'if our agriculture sector is to survive, we must follow through on sweeping reforms ...'. However, it is not clear what the eventual outcome of the TPP negotiations will be and Japan has already designated beef and pork as sensitive products in these discussions. Nonetheless, the Japanese Government has signalled its desire for reform to an industry that has been decline in the past twenty years and importance is attached, in particular, to changes in the co-operative sector.

Demographic trends *(see Fig 25)* will be playing an important part in future meat demand in Japan; the declining birth-rate is leading to a significant reduction in the population over the next thirty five years. Most recent projections suggest that, by 2050, the **Japanese population will decline by almost a third**. This is, of itself, going to result in a significant fall in total food consumption over the same period. In addition to this, there would be important demographic changes **within** the population – in particular, there would be a far higher proportion in the over 65 age bracket with big implications for consumer preferences and portion sizes; the balance between home-meal replacement and dining-out trends would also change.

A reformed livestock sector would have a more dynamic role to play in agricultural exports. Japan has a strong image of quality, taste, safety and flavour. This should present opportunities for export, mainly to other markets in Asia, in particular China. The current export promotion of Japanese Wagyu beef *(see Fig 26)* was indicative that opportunities for high quality meat exports also had potential in markets in Europe and North America.

The ambitions for a more dynamic Japanese agricultural sector will not be achieved overnight. They depend on reformed structures enabling Japanese farmers to reduce costs and become more competitive; also on a bigger scale of operation as well as a greater market orientation. Nonetheless, there is a clear desire from the top of Government to move down this path and time will tell how far and how quickly progress is made.

Figure 25 Trends and Projections of Japanese Population by Age Group, 1965–2050

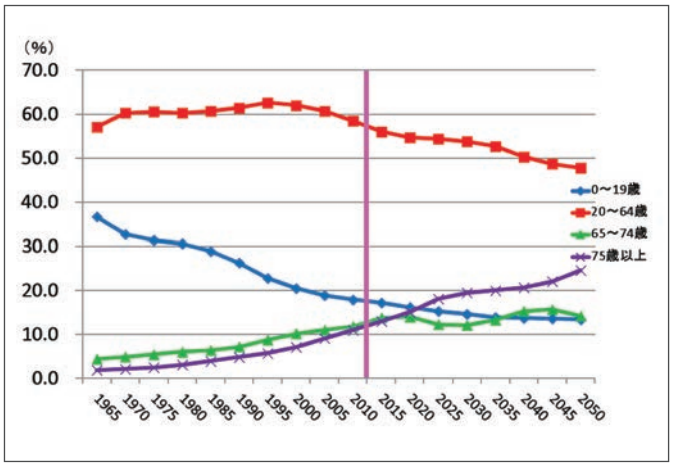


Figure 26 National Challenge in Japan

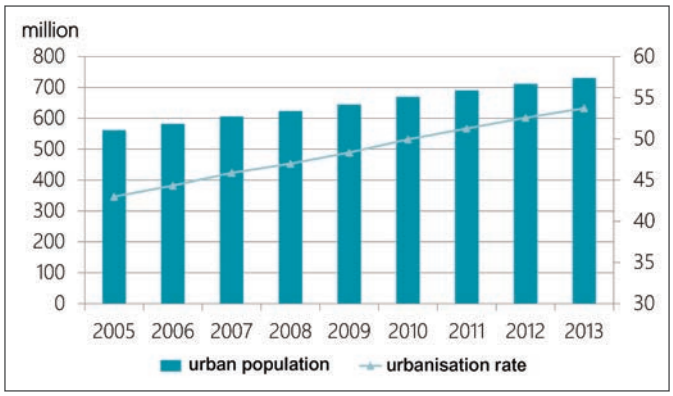


Meat Consumption in China to Increase by 14 Million Tonnes Over Next 20 Years

The growth in per capita GDP and rising urbanisation are the key influences for increasing meat consumption in **China**. In 2014, 54% of the population lived in an urban situation and this figure is expected to increase to 74% by 2034 *(see Fig 27)*. However, the current rapid rate of increase of the Chinese meat market is not likely to be sustained due to the slower growth in the population resulting from the 'one couple one child' policy. Over the next twenty years total meat consumption is projected to increase by an extra 13.8 million tonnes (+17%); if the 'aging population' effect was not present an extra 19.1 million tonnes (+24%) would have been expected. Urbanisation influences meat demand in a variety of ways: rising urban incomes make meat more affordable; meat consumption patterns reflect the local urban environment; also, there is greater accessibility to meat markets with more diverse choices.

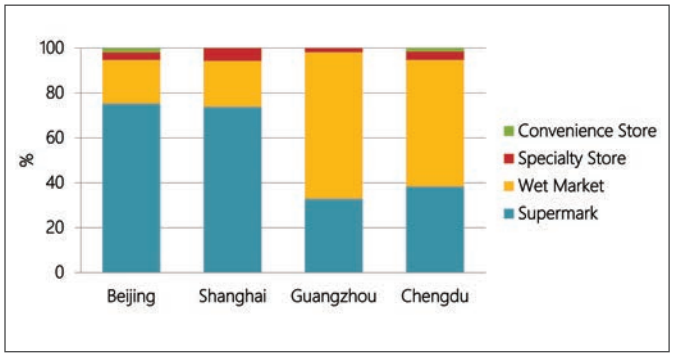
Figure 27 Urbanisation in China: 54% of population live in urban in 2014

(One point to expect to add each year in the coming decades)



Source: China Statistical Yearbooks

Figure 28 Supermarkets are the top venue for consumers to purchase pork in Beijing and Shanghai, but in other cities traditional markets still dominate in pork retail



Source: Professor Junfei Bai's survey, China Agricultural University

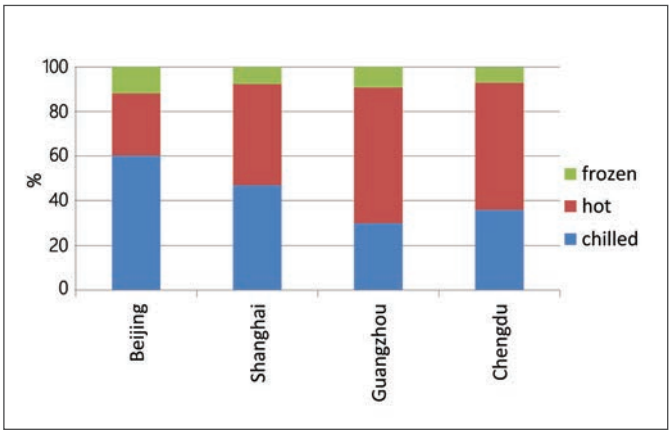
The biggest growth in the Chinese meat market is in meat consumed away from home. This is particularly true for the higher income groups. However, there is much variation in different regions and for the various meat categories; for example, more pork is consumed away from home in Chengdu province than in Beijing or Nanjing, whereas the Beijing region consumes more beef and sheepmeat than other regions. Families in younger age groups are also far more likely to consume meat away from home than older age families.

Purchases of pork through supermarkets predominate in Beijing and Shanghai *(see Fig 28)*, however, this is not the case in other major cities and regions where wet markets continue to be of predominant importance. Freshness continues to be important for Chinese consumers; 90% of urban households purchased pork at least once a week with nearly 70% of them purchasing less than 1kg per shopping visit. However, urban consumers may well store their pork purchases in a freezer for consumption at a later date. There is still a preference for purchasing 'hot' pork compared with chilled pork although consumers lack knowledge about the differences between hot and chilled pork *(see Fig 29)*.

Food safety continues to be a major concern for consumers with over a third of the population perceiving food safety in China as being poor. Better educated consumers are more likely to purchase chilled or imported categories and are willing to pay more for these products. There is a greater opportunity for imported meat in the high quality segment of the market – particularly if there are references to quality standards and sales are backed up with education of consumers. More attention and innovation could be made by overseas suppliers to target imported meat products for the older generation of consumers.

Overall, the Chinese meat market is vast which presents plenty of opportunities for major exporting countries who are eligible to supply the market. It is important to understand that there are major variations in the structure and preferences of demand in different regions of the country.

Figure 29 Regional Variations in Hot and Chilled Pork Sales in China



Source: Professor Junfei Bai's survey, China Agricultural University

SESSION 3

Demand and Food Security in Developing and Emerging Markets

Session 3 turned the focus to both the practical needs of developing business in Asian markets in terms of food security and food safety as well as the opportunities for satisfying import demand in the Philippines, one of South East Asia's key growth markets. Presentations were made by Tim McLellan, Managing Director of International Development with Preferred Freezer Services and Jesus Cham, President of the Meat Importers & Traders Association in the Philippines. The session was moderated by Hsin Huang, Secretary General of the International Meat Secretariat.

Food security and **food safety** should be key elements for global meat suppliers to prioritise in developing international markets for meat. Food security is built on four pillars: availability, access, usage and sustainability. Food safety in the context of meat requires commitment to five principles:

- Preventing meat contamination from pathogens
- Separating raw from cooked meat to prevent the contamination of the cooked meat
- Cooking meat for the proper length of time and at proper temperatures
- Storing meat at the proper temperature
- Using safe water and raw materials.

Underpinning these principles is the need for investment in traceability throughout the supply chain.

Critical Importance of Effective Cold Chain

Developing successful business links in Asian markets demands considerable focus on distribution efficiency which in turn depends on close attention to cold chain logistics *(see Fig 30)*. An effective cold chain logistics strategy requires a temperature-controlled system with an uninterrupted series of storage and distribution activities which maintain a given temperature range; this helps to extend and ensure the shelf life of fresh and frozen meat and meat products.

There are three key features of an international logistics service:

1 *Accessorial Management*, which ranges over the need for co-ordinating the links between freight forwarders, carriers and regional shipping offices; also provision of relevant supply chain technology, financial management and additional services such as labelling, palletising and dealing with customs as well as quarantine services
2 *Freight Management*, which covers air sea and road movements *and*
3 *Logistics Management*, dealing with inventory, warehousing and transport. All these management elements of distribution efficiency can be particularly demanding in supplying Asian markets.

A further aspect which needs effective management is the clear understanding and interpretation of the regulations applied in different importing country markets. Competing documentation demands detailed researching of the various import/export rules; processing and production plants are subject to even more specific compliance restrictions. It is vital to have good quality staff, who are well trained in local business culture, environmental conditions and infrastructure limitations. Local staff also need to be well educated on handling procedures and protocols for meat and meat products. Managers should be communicating well with regulatory agencies and be alert to changing policies and interpretations. Effective handling of the local media is a vital part of maintaining an effective operation; good positive publicity can be highly beneficial and enhance a profitable business. By contrast, negative media coverage can be highly damaging.

Figure 30 A Complete Whole Chain Logistics



Massive Increases Expected in Chinese E-business

One very important development in China is the growth of e-business in the food sector *(see Fig 31)*. China has the world's largest internet population with up to 600 million users. Total online sales are on track to exceed US$1 trillion by 2020; at present, food is a very small percentage of the business but is growing fast. The food safety image of imported food items could provide a positive advantage for overseas suppliers in this area. The challenge is to provide portion-controlled packaged meat cuts for on-line shoppers with cold chain logistics providing home delivery to the on-line shopper's door.

Philippines Now Asia's Fifth Largest Meat Importer

The Philippines is a country which includes over seven thousand islands in South East Asia with one of the world's fastest growing populations (approximately 1.7% per annum). Similar to other countries in the region it experienced relatively high economic growth rates in recent years (+6–7% per annum). This has also resulted in a growing number of people with middle class incomes who can afford to increase the volume and quality of meat consumed. However, despite this, there is still a very large proportion of the population on low incomes, with a third earning under US$ 1 per day and 50% of households being 'self-rated poor' *(see Fig 32)*.

The livestock industry consists of a large number of semi-subsistence farms alongside a 'commercial' sector which consists of pig, poultry and beef feedlot units, which are for the main part dependent on imported feed. There are several constraints to increasing livestock production levels; these include the need to import feed, land use priority for cropping and poor transport infrastructure. Despite this, meat production has risen by 10% in the past five years and in 2014 amounted to 3.95 million tonnes. Almost 90% of this production consisted of pork and poultry.

The Philippines is now Asia's fifth largest meat import market after China, Japan, Vietnam and Korea. Latest import figures for 2014 showed a total volume of 560,000 tonnes, with 45% being pork, 32% poultrymeat and 21% beef and buffalo meat. Imports have risen by over 40% since 2010 and a further increase is expected in 2015. A large volume of lower grade meat and offal is imported – pork offal imports in particular have grown significantly.

In the future there will be growing competition to domestic production from imported meat categories. This will mean that Philippines' producers will need to improve their competitiveness and raise the quality of the products. As a member of Association of South East Asian Nations (ASEAN), the Philippines applies zero or near zero rate duties on raw and processed meat products imported from countries with established FTAs. The Government has sometimes had to deploy Sanitary and Phyto-Sanitary (SPS) measures to restrict imports.

Figure 32 Poverty Levels in the Philippines

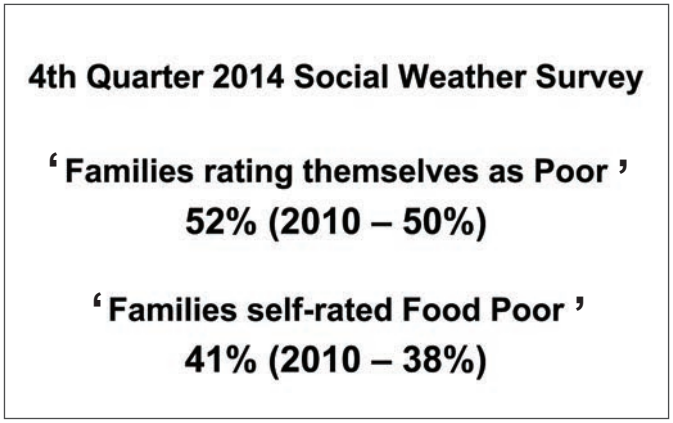


Figure 31 Growing Trends in Chinese Consumer Purchases



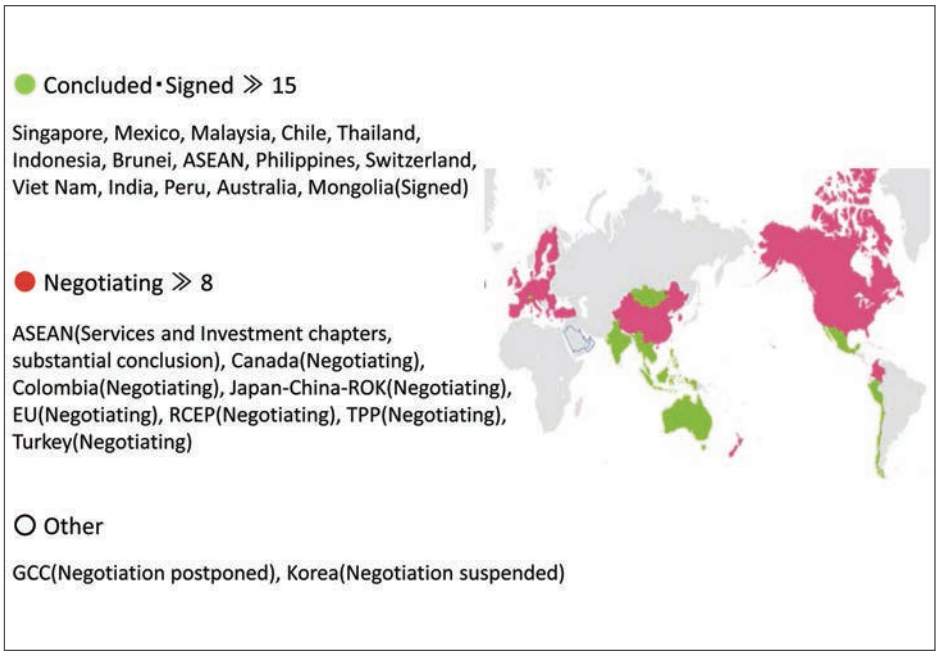
SESSION 4

Free Trade Agreements and Their Implications

The fourth session of the workshop focussed on Free Trade - in particular on the implications of the FTAs affecting Asian countries, notably the Trans-Pacific Partnership (TPP). Presentations were made by Dr Will Martin, Senior Research Fellow at the International Food Policy Research Institute (IFPRI), previously Manager, Agriculture and Rural Development in the Development Research Group at the World Bank, and Joel Haggard, Senior Vice President, Asia Pacific Region for the US Meat Export Federation. The session was moderated by Dr Peter Barnard, Special Adviser, Meat Industry Strategic Plan for the Australian Beef and Sheepmeat industries.

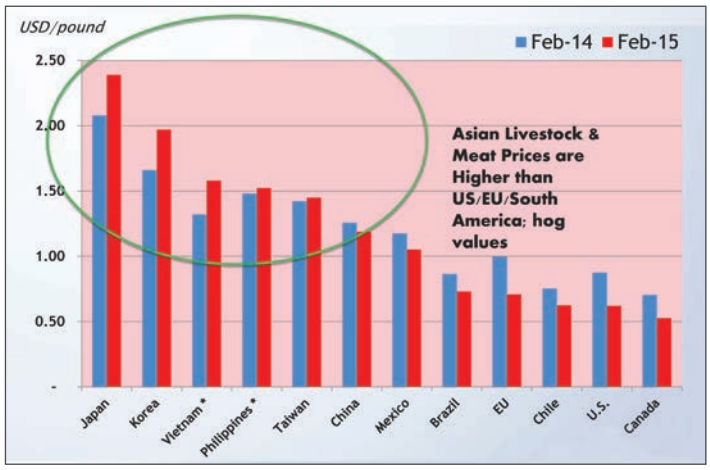
As demand for meat grows, the scope for increased international trade in meat should also increase – with greater scope for production-efficient countries to supply increased exports to countries whose industries have less competitive cost structures (*see Fig 33).* To an extent this has been happening in recent years with world trade in meat estimated to have risen by almost 50% in the past ten years compared with an increase of less than 20% in global consumption. However, the OECD Producer and Consumer Support Estimates (PSEs/CSEs) for meat show significant levels of protection remaining for some countries and this is also illustrated by the average tariff levels for countries involved in the TPP. It also needs to be borne in mind that protection levels are not just about tariffs but increasingly result from non-tariff barriers related to a variety of issues such as quality standards or food safety.

Figure 34 Free Trade Agreements and Economic Partnership Agreements in Japan (March 2015)



Source: MOFA

Figure 33 World Pig Price Differentials Points to Significant Scope for Increased Trade



Source: USMEF

TPP Countries Account for 40% of Global Economy

Free market economists have long argued for the gains to be obtained from free trade on the basis of the law of comparative advantage. At the same time, others have provided reasons for maintaining barriers to help weak industries, protect environmental impact or to prevent negative influences on culture. Despite the lack of success in progress on the latest multilateral trade talks under the Doha Development Agenda, there has been a significant interest in recent years in negotiating Free Trade Agreements (FTAs) on a bilateral or regional basis. Although there have been some agreements involving Asian countries, there has not been so much activity as in other parts of the world until more recently. **However, times are changing** *(see Fig 34).* The TPP, which involves the US, Japan and ten other countries, which together account for 40% of the global economy, has been a major focus of attention in recent months. In addition, there are other FTA discussions taking place in the region, eg the Regional Comprehensive Economic Partnership (RCEP) which involves China and other Asian countries as well as the FTA discussions between India and the Eurasian Economic Union (EAEU).

There was discussion on the meat industry benefits which had been achieved in the 1993 North American Free Trade Agreement (NAFTA) between US, Canada and Mexico. Meat and livestock trade within NAFTA grew faster than had been expected and outpaced trade with the rest of the world; there was also an increasingly high level of integration between US grain producers and Mexican livestock farmers. In other areas, the results were more variable and there remain mixed views overall on the value of NAFTA. In reality, it is very difficult to assess overall costs and benefits as there are so many other factors

which have an impact on global production, consumption and trade over the years *(see Fig 35).*

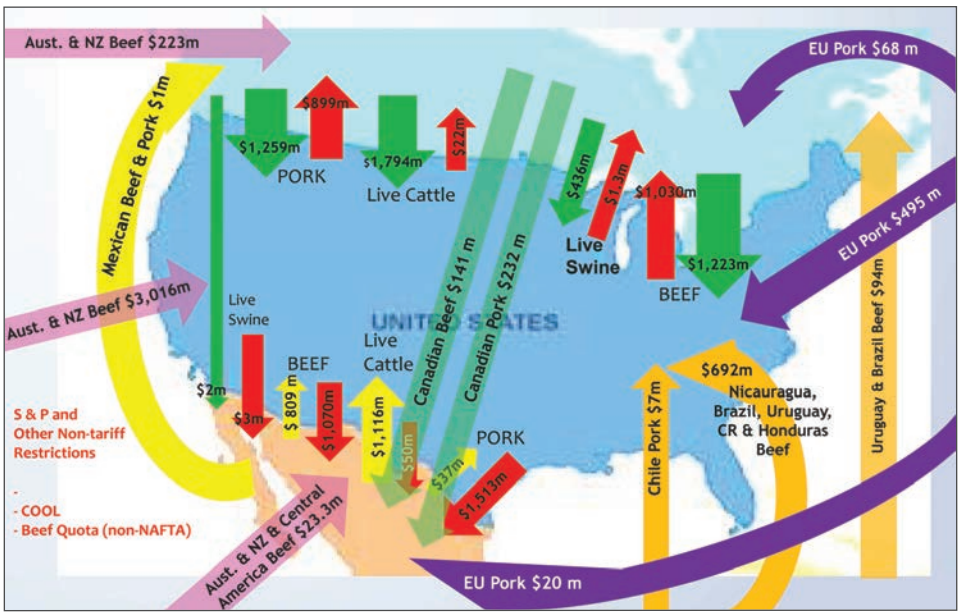
There was much focus on TPP in this session of the workshop, not least because of the prominent reports about the progress of these negotiations in the Japanese and North American media while the Workshop took place. Although China is not part of the TPP discussions, there are potentially significant implications for world trade in meat resulting from the TPP. Despite the fact that there is much variability in the levels of protection for the major meat categories amongst the twelve TPP countries, the average for all countries is significantly higher than for traded goods as a whole. It was accepted that certain barriers to trade were justified in some circumstances, eg for reducing risks of the transmission of animal disease; however, all too often powerful pressure groups in particular countries will use their political influence to maintain levels of protection. It was observed that although the Japanese Government has insisted on sensitive product status for beef and pork in the TPP negotiations, it has also signalled its intention of using the TPP as part of its policy to encourage structural change in the economy – including in the agricultural sector.

Turning to other FTA implications for Asian countries it was noted that a very high proportion of Korean red meat trading now occurred under the various FTAs that had been negotiated in recent years. Evaluating the future trading situation with China poses many questions – not least because of some uncertainty over the precise import volumes (particularly of beef) at present. In addition to this, there is the big question of whether the policy priority of the Chinese Government is to increase imports of meat or of grain to feed to livestock *(see Fig 36).* The current policy of subsidised grain prices is weakening the competitiveness of the livestock sector, with the temporary reserve price in March being substantially above the reducing world corn price. Finally, there is uncertainty where the 'New Silk Road' initiative linked to the Asian Infrastructure Investment Bank (AIIB) will be leading.

Wider Ambitions for Free Trade in Asia

In conclusion, it was agreed that it is early days in the development of the new Asian FTAs – and therefore difficult to evaluate their future impact; this was particularly the case as SPS barriers would be likely to feature prominently in the outworking of the final agreements and their implementation. The NAFTA experience showed that there would be likely to be winners and losers in various segments of the trading developments but even these are difficult to predict at present.

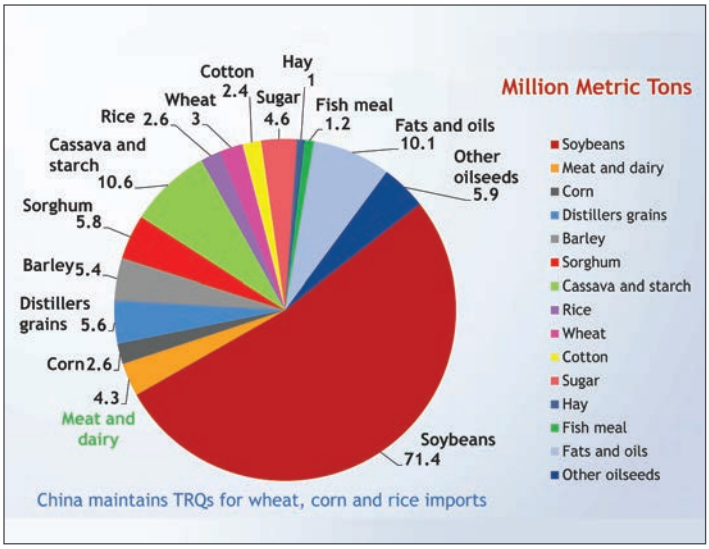
Figure 35 North American Livestock and Meat Product Flows: Comparative Advantage In What?



Source: USMEF

There are various ways in which effective marketing of domestic meat and meat products can provide 'legitimate' protection for particular sectors (eg through branding), especially in countries where there is a strong preference for national or locally produced products. There are questions over whether trade in live animals will play an important part for some of the species categories. Finally, there is an aspiration in some quarters for a more ambitious Free Trade Area for the Asia Pacific (FTAAP) to be established, which would include the US, China and Japan as well the other APEC countries. This seemed an unlikely prospect in the immediate future bearing in mind the political and economic aspirations of the major parties involved.

Figure 36 Current Chinese Import Volumes



Source: USMEF

SESSION 5

Increasing World Food and Meat Supplies in a Sustainable Way. How Feasible is this?

The final session of the Workshop dealt with the issue of sustainable livestock production. The presentations were made by Dr Peter Barnard, Special Adviser, Meat Industry Strategic Plan for the Australian Beef and Sheepmeat industries formerly General Manager for Economic, Planning and Marketing Services at Meat and Livestock Australia and Mariane Crespolini dos Santos, Researcher at the Centre for Advanced Studies of Applied Economics (CEPEA) in the University of Sao Paulo, Brazil. The moderator for the session was Jim O'Toole, Director, Meat and Livestock Division, Bord Bia – the Irish Food Board.

Food and agriculture have assumed greater importance in the public mind and with the media in recent years *(see Fig 37).* This is partly due to increasing demand in emerging economies and developing countries but also because of a perception by some that the world may not be able to satisfy this demand. This has led to a renewed interest in investment in the agri-business sector and rising values for agricultural land in some countries. In relation to meat, there is concern that whereas the world population has only grown by 12% in the past ten years, world meat consumption has risen by 20%. In view of this, can future increases in consumption be satisfied by truly sustainable livestock production growth?

Figure 37 Food and Farming are in the Spotlight



Source: P Barnard

Slowdown in World Population Growth Rate Forecast

The first issue addressed was the extent of future increases in food and meat demand. World population growth is slowing down *(see Fig 38).* Whereas the growth rate between 1975 and 2000 amounted to 55%, this is expected to reduce to 29% in the period between 2025 and 2050 – and the Chinese population is confidently expected to be declining by 2030; this is important not least because China accounts for almost 30% of current world meat consumption. Chinese GDP growth, which is a major engine for meat consumption increases, is forecast to reduce from 7% at present to 3% per annum between 2031 and 2050. The net result of all this is that world food consumption increases are expected to decline below 1% per annum from 2030 and meat consumption increases to approximately 1.3% per annum between 2005/7 to 2050. This is less than half the figure of 2.8% between 1971 and 2007.

Figure 38 World Population Growth is Slowing

Years	World population growth (%)*
1950-1975	62%
1975-2000	55%
2000-2025	41%
2025-2050	29%

*UN population projections

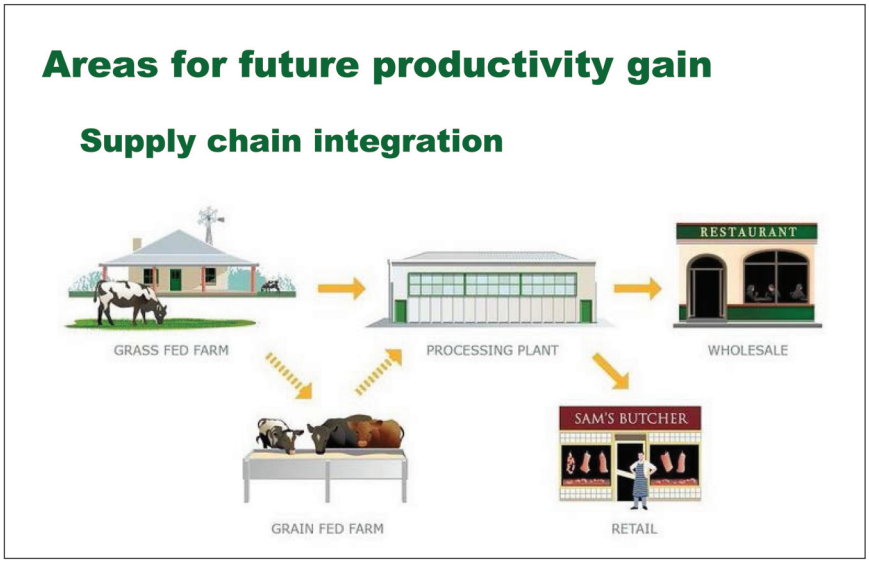
Source: P Barnard

Turning to the future supply situation, the critical issue for food in general appears to be whether the world can increase its agricultural productivity by 1% per annum in the next 35 years? There is reason to believe this is possible with the current trends in cereal yields; also, so long as agricultural R&D levels are maintained – and increased in the emerging economies and developing countries. Even in countries where very high productivity levels have already been achieved, there appears to be much further scope for productivity gains.

For meat, the target of 1.3% per annum is a more challenging one but there is still potential for achieving this through:

- Better adoption rates for applying research results – evidence suggests that in many countries only 20-35% of producers adopt within the first 10 years
- Improved supply chain integration – in particular improving communication down the chain and ensuring that 'unnecessary' links are removed *(see Fig 39)*
- Movement towards payment systems to producers that reflect the actual value of the product sold
- Improved on-farm productivity – there are many examples of major differences between performance levels of the top third of producers and the average performance.

Figure 39 Plenty of Potential for Future Productivity Gains On-Farm



Source: P Barnard

Major Scope for Increasing Productivity Levels in Brazil

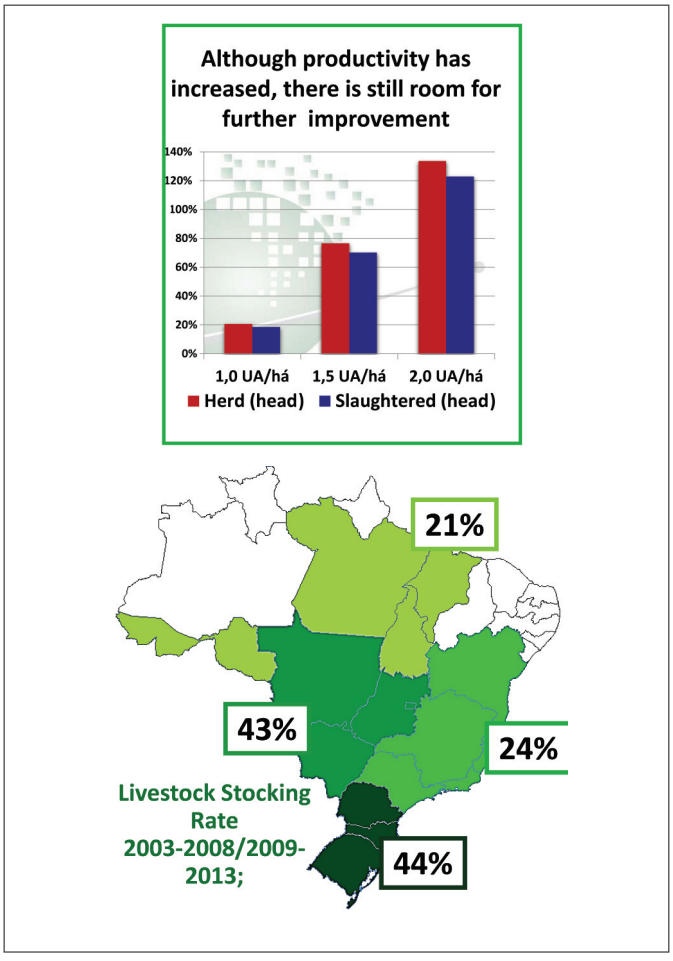
In relation to sustainable production in **Brazil**, current land use showed that 61% of the country was covered by forests and most of the increases in cropping had come from existing grassland areas. The best scope for increasing livestock and meat production in future years would come from raising on-farm productivity levels. Already substantial improvements in stocking rates had been achieved for cattle production and in the four important regions of Brazil, stocking rates had risen between 21 and 44% between 2003-2008 and 2009-2013 *(see Fig 40).* However, there was tremendous scope for further improvement: eg international comparisons showed that Brazil's weaned calves per cow per year rate was still lower than all other countries recorded including some of its South American competitors *(see Fig 41).*

The reason for these poor performance levels was partly due to the lack of incentive to improve as production was already reasonably profitable. International comparisons showed that short and medium-term profitability levels in typical Brazilian cattle farms were around average in the group of countries recorded; in relation to farm incomes, the Brazilian farms were near the top of performance levels. This may have partly been due to the size of the Brazilian farms measured. However, there were other factors behind the lack of productivity growth. These included: the concern that changing their practices might incur more risk, the fact that the farm manager frequently did not have direct control over the financial or technical results and the culture of some Brazilian livestock producers to make more money by increasing farm size rather than profitability per animal.

In Mato Grosso do Sul, there had been a demonstration of how substantial improvements could be made in productivity in beef finishing units as a result of technical and economic changes. Stocking rate improvements of 160% had been achieved – and this together with improved pasture management had resulted in a doubling of profits. Spectacular examples like this were needed to persuade producers to improve their practices.

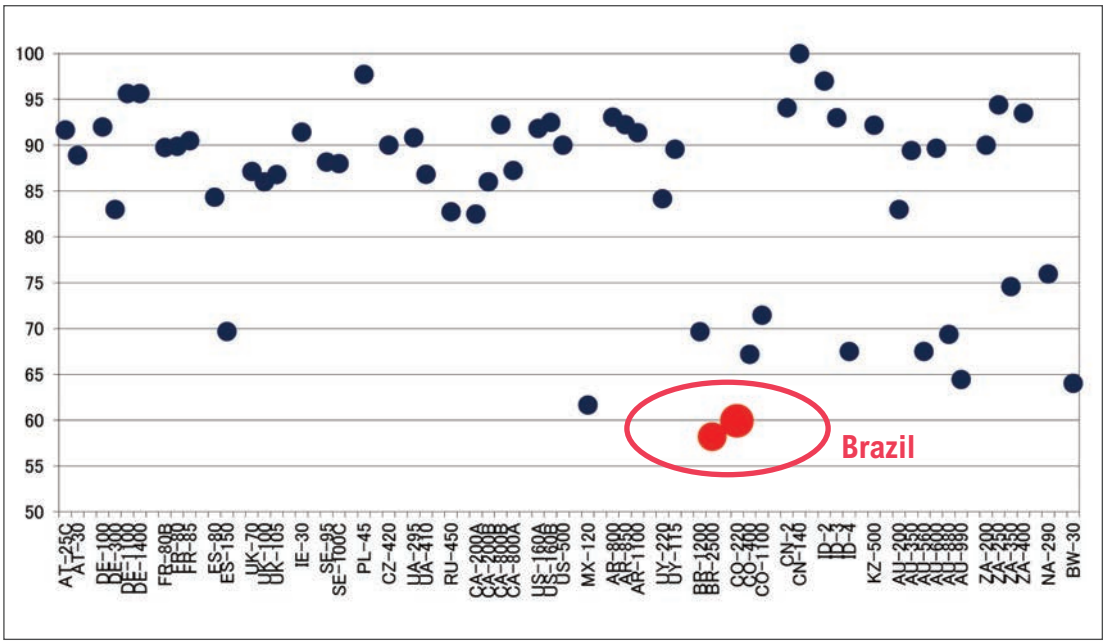
Turning to animal welfare and sustainability, there were increased Brazilian consumer concerns about sustainable practices, *(see Fig 42).* This was important because 80% of beef and 85% of pork was marketed to Brazilian consumers with only 20% and 15% respectively going for export. Experience showed that domestic pressure was more likely to have an influence on environmental practices than on animal welfare issues. However, it was also important to recognise the influence that Government had on major Brazilian companies. Both JBS and BRF received much support from BNDES, the Brazilian Development Bank – with BNDES owning almost 25% of shares in JBS.

Figure 40 Brazilian Beef Cattle Productivity



Source: Cepea/CNA

Figure 41 Comparison of Weaned Calves per 100 Cows per Year in 25 Countries – Brazil Lowest Performance Level



Source: Agribenchmark 2014

Figure 42



In conclusion, there is enormous scope for Brazil to increase production by raising its productivity levels; moreover this can be done in a sustainable way and without deforestation. Increasing consumer pressure for sustainable meat production was now evident in Brazil; in addition, meat companies were keen to ensure that production was becoming more sustainable to satisfy overseas and domestic consumers. Government influence with the major multinational companies would serve to reinforce this.

Participants at IMS Economics Workshop Tokyo

Name		Organisation	Country or Organisation
Jorge	Acosta	INAC	Uruguay
Junfai	Bai	China Agricultural University	China
Bob	Bansback	Harper Adams University	IMS
Peter	Barnard	Special Adviser Meat Industry Strategic Plan	Australia
Knud	Buhl	Danish Bacon & Meat Council	Denmark
Andrew	Burtt	Beef + Lamb New Zealand	New Zealand
Debbie	Butcher	AHDB	UK
Pablo	Caputi	INAC	Uruguay
Jesus	Cham	Philippines Meat Importers & Traders Association	Philippines
Rupert	Claxton	GIRA	GIRA
Massimo	Coda	Beef Producers' Association	Paraguay
Emmanuel	Coste	Interbev	France
Mariane	Crespolini dos Santos	CEPEA, University of Sao Paulo	Brazil
Phindiwi	Dingili	South African Embassy, Tokyo	South Africa
Jonathan	Eckley	AHDB Beef & Lamb	UK
Karsten	Flemin	Danish Agriculture and Food Council	Denmark
Brenna	Grant	Canadian Cattlemen's Association	Canada
Joel	Haggard	US Meat Export Federation	USA
Nishimura	Hiroaki	ALIC	Japan
Norimoto	Hirofumi	SC Foods Ltd	Japan
Chris	Hodges	National Pork Board	USA
Masayoshi	Honma	University of Tokyo	Japan
Hsin	Huang	Secretary General, IMS	IMS
Yasuaki	Irie	Starzen International Cto. Ltd	Japan
Minoru	Isohata	South African Embassy, Tokyo	South Africa
Miguel	Jairala	IPCVA	Argentina
Deb	Kerr	Australian Pork Ltd	Australia
Masayoshi	Kinoshita	ALIC	Japan
Duane	Lenz	CattleFax	USA
Shuilong	Li	China Meat Association	China
William	Martin	IFPRI	IFPRI
Tim	McLellan	Preferred Freezer Services	USA
Seamus	McMenamin	Livestock & Meat Commission	Northern Ireland
Kenji	Miki	Hannan Corporation	Japan
Tetsu	Ono	NH Foods Ltd	Japan
Jim	O'Toole	Bord Bia	Ireland
Jurgen	Preugschas	Canada Pork International	Canada
Jens	Richter	Multivac (Shanghai) Packaging Material Cto. Ltd	China
Martin	Rice	Canadian Pork Council	Canada
Michel	Rieu	IFIP - Institut du Porc	France
Junji	Sato	ALIC	Japan
Philip	Seng	US Meat Export Federation	USA
Leiko	Shimane	US Meat Export Federation	USA
Andrew	Spencer	Australian Pork Ltd	Australia
Victor	Tito	BNDES	Brazil
Masaru	Watanabe	ALIC	Japan
Mamoru	Yasui	ALIC	Japan
Toru	Yokota	ALIC	Japan
Tomoe	Yokouchi	ALIC	Japan

INTERNATIONAL MEAT SECRETARIAT

The International Meat Secretariat (IMS) represents the global meat and livestock sector as a vital motor of growth and prosperity to meet the future demands for sustainable, high- quality, nutritious and safe animal protein.

The IMS is a non-profit organization that brings together livestock producer associations, national and regional meat associations, meat exporter associations, meat processing companies, government, and corporate partners from all over the world representing over 75% of the global production of cattle, pig, and sheep meat. The IMS is headquartered in Paris and celebrated its 40th anniversary in 2014.

Representation

As the representative international association for the meat and livestock industry, the IMS works with international governmental and nongovernmental institutions in the sphere of agri-food. It represents the industry with the OIE (World Organisation for Animal Health), the FAO (Food and Agricultural Organisation of the United Nations), WTO (World Trade Organisation), OECD (Organisation for Economic Cooperation and Development) and other international bodies, for the benefit of the meat and livestock industry worldwide.

Membership

By joining the IMS you will connect with key organizations working together to meet the future demands for sustainable meat and you will be able to:

- Input into the development of international standards impacting our sector and engage with international organizations to shape science and fact based public policy
- Network with your peers from around the world via IMS conferences, scientific symposiums, expert workshops and committees and benefit from knowledge-sharing and scientific exchange
- Shape the external communications and image of the industry while benefiting from assistance in issue management and policy guidance to support your local engagement efforts
- Raise your organization's profile, including through leadership positions within the IMS, hosting an IMS event or supporting other activities.

Meetings

The IMS arranges and supports specialist meetings and workshops for its members all over the world. Topics include economics, nutrition and health, sustainability, and animal welfare. It is best known for organising the World Meat Congress, which last year was held in Beijing, China. Its next World Meat Congress will take place from 7 to 9 November in Punta del Este, Uruguay.

Publications

IMS members receive several publications free of charge:

- **IMS Newsletter:** Published on line every month, the IMS Newsletter brings industry news as well as expert analyses of economic, commercial and scientific trends and events in the international meat and livestock sector. There are versions in English, French, Spanish and Chinese,
- **IMS/GIRA World Meat Facts Book:** An annual publication produced jointly by the IMS and GIRA, a leading independent economic/market research consultancy specialising in strategic research in the agri-food sector. It contains comprehensive and up-to-date statistics on production, consumption and international trade in meat.
- **Other Publications:** The IMS publishes occasional papers and reports
- **Website:** The IMS website www.meat-ims.org is regularly up-dated and offers members password protected access to a database of specially selected scientific abstracts.

To join the IMS, or for more information, please contact International Meat Secretariat:

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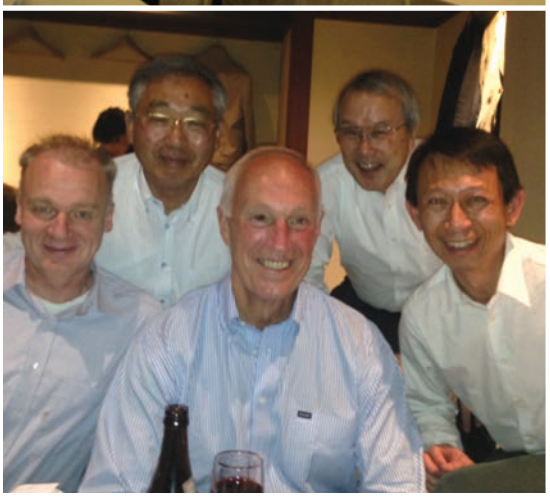
Photographic Moments from the Event













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