Where is the beef? The Argentinean cattle cycle and government intervention

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Abstract

This paper raises and answers basic questions about the mechanics of the Argentinean cattle market and its price dynamic from 2003 to 2012. More specifically this paper will focus on "how successful has government intervention been at lowering meat prices in the Argentinean meat industry since Nestor Kirchner became president in 2003?"

The actions undertaken by the Kirchner'sparty, "Frente para la Victoria", which intended to support the lower class, have led to alterations in the natural flow of an open trade system. Due to this, a hypothesis was developed: government intervention during the Kirchner era has had positive effects for the consumers in the short-run, but the counter effect was created in the long run. Production suffered from a negative marginal contribution and as a consequence, consumers found themselves paying higher prices.

This analysis links cattle producer's response to political policies with the domestic prices of meat, the domestic consumption rates and the exports. The data cited throughout this statistical study was obtained from: the SIIA (Sistema Integrador de Información Agropecuaria), the Consorcio de Exportaciones de Carnes Argentina and specialized papers on the subject. These sources of information were complemented by an interview done to an Argentine cattle breeder and an interview sent to the Ranch Malal Hue, were two independent consultants contributed with their experience.

Overall, it hasbeenobserved that political policies, during this period, were aimed towards the short-term increase in cattle supply, ignoring the long-term consequences. From 2005 to 2009 the price of meat stabilized but led torocketing prices from 2009 onward. Cattle production lost its gross margins, liquidation of cattle stocktook place and producers shifted to the production of agricultural commodities, a more profitable activity. Even though Argentina has a comparative advantage for cattle production, it is experiencing very low levels of cattle stock that will take years to replenish.

Word count: 300

1. Introduction

Argentina is worldwide known for its cattle raising activity, which is closely related to the cultural, political, and economical history of the society. The indigenous population of the Argentinean Pampean Region first undertook this activity. Later came the Spaniard immigrants, who opened the economy to international trade. During the twentieth century, the development of the refrigerating industry marked the process of meat industrialization and consequently, the incorporation of Argentina into the international capital market.

Ever since, a variety of agricultural commodities have been introduced and cattle production has varied significantly based on land competition, climatic constrains, system design, technological development, profitability, changes in demand, exchange rate policies, protectionism, natural resource deterioration, and the ability to undergo sustainable development (Arelovich, Bravo & Martinez, 2011, introduction section para. 2). In spite of all these variables, this paper will focus on the relationship between government intervention and the cattle and meat industry.

Economics is a social science, which studies the distribution of the limited resources of a society in order to achieve the greatest number of goods for the greatest number of people in that society. It is the on-going struggle between unlimited wants and limited resources. Under these remarks, this study focuses on how well the Argentinean government has been able to achieve such goal with respect to the meat industry from 2003 to 2012.

Since Nestor Kirchner became president in 2003, government intervention in the cattle cycle has caused an important short- term increase in terms of supply that occurred from 2005 to 2009. Due to this observation, a research question has been developed, which will set one's sight on "how successful has government intervention beenat lowering meat prices in the Argentinean meat industry since Nestor Kirchner became president in 2003?" Along with this research question, a hypothesis has been developed: government intervention during the Kirchner era has had positive effects for the consumers in the short-run, but the counter effect was created in thelong run. Production suffered with negative marginal contribution and as a consequence, consumer found themselves paying higher prices.

In order to investigate the impacts of the Kirchner administration on the production possibilities of Argentina, it is fundamental to contemplate on given economical aspects and political considerations.

First, taking into account the economical characteristics of the cattle business, it should be pointed out that a cow is a consumption good, in the sense thatit can be eaten. However it can also be considered an investment good, itis effectively similar to a machine;it can be used for producing more goods (cows). In addition, Argentina is a net exporter of beef and maintainsthe highest ratio of beef consumption per capita in the world. At last but not least, the domestic price of beef is a very sensitive variable and is negatively correlated with the real wage of the economy. As the price of beef rises, the buying power of the average workerdecreases, mainly due to the fact that the price elasticity of demand is relatively low. In other words, people will always strive to buy the quantity of meat they are accustomed, maintainingtheir cultural traditions.

From the government's point of view, the cattle business is considered elitistand inherited from generation to generation, involving scarce investment and incapable of providing tools towards the development of the modern world. This, interpretation of the cattle industry, completely denies the fundamental concept of comparative advantage.

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Let's take Argentina and Europe for an example. The latter has high capital endowment, research facilities and a highly educated work force resulting in a comparative advantages in goods which require large amount of capital, advanced technology and skilled labour. On the other hand, in Argentina,land is plentiful, the costs of buying, renting and maintaining the land are low and so are the prices of grains and meat produced compared to land scarce countries. In effect, Argentina has a comparative advantage over Europe in the production of meat and grains, while Europe has a comparative advantage in the production of more elaborate goods. They produce the goods and services that result in the lowest opportunity cost when compared to other countries and continents.

The government intervention, which has taken place in Argentina since 2005, has been commonly referred to as 'restriction on exports'. The aim of this policy was to decrease the domestic price of meat and therefore increase its accessibility with respect to the real wage of the working class. In addition to this type of intervention, which involves a reduction in the participation of the cattle sector in the international market, with the risk of losing market share after years of investment, the government fixed maximum prices for certain meat types, set a minimum slaughter weight of cattle and implemented programs such as "Carne Para Todos." These projects eluded the principals of sustainable development as shown by empirical evidence from the cattle market, to be addressed lateron.

Throughout this paper the resources used will be both primary and secondary. The latter will be based on the data provided by the "Sistema Integrado de Información Agropecuaria", managed by the Ministerio de Agricultura, Ganadería y Pesca de la Presidencia de la Nación and the Consorcio de Exportaciones de Carnes Argentina. Primary research will be obtained from interviewswith recognized professionals on the fieldand argentinecattle producers.

2. Ideal framework in an open economy

Before deepening this study into the specific situation of Argentina, it would be wise to reviewhow the "ideal" and "open economy" framework for an exporting country functions. As presented in the chart below¹, there is a diverse array of beef "cuts" that vary in quality, demand and, therefore, price. Consequently, some meat "cuts" are sold internationally and others domestically.



¹Retail Beef Cuts (n.d.). Retrieved from

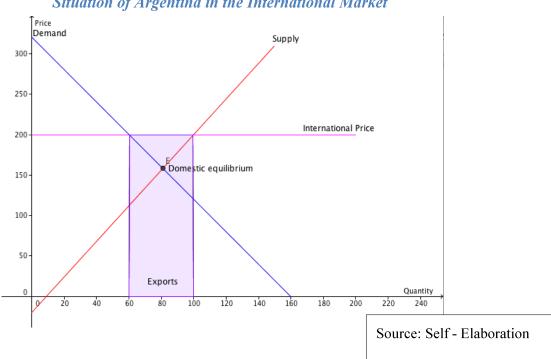
<u>http://www.virtualweberbullet.com/meatcharts_photos/beefcutsposter2010.pdf</u>. The information provided is from The United States but the same variety can be found in Argentina.

When a country is involved in the globaleconomyproducers have the domestic and foreign markets to attend to. The importance given to each one depends on the net contribution of each.

In this context, comparative advantage in cattle production is not only based on the endowment of land, land availability, labour force, costs of production, climate, opportunity costs of other forms of production and location, but also on the exchange rate policy and commercial policies.

Along these lines, those with cattle production comparative advantage will be exporters of the high quality meat demanded in the international market and the "left over" meat, which in Argentina would include the popular "asado", would be sold domestically.

Due to this global economic interaction, primary resource exporters, such as Argentina, are faced with an international price of meat, which is higher than that in the domestic market. This results from the addition of the worldwide or aggregate² demand to the domestic demand. The international price will be above the domestic equilibrium in Argentina but below the domestic equilibrium of a country without a comparative advantage in the meat industry. For example, for UKto produce the same amount of meat as Argentina, much would have to be given up, and higher costs would have to be incurred.



Situation of Argentina in the International Market

As a result international trade brings along benefits for all countries involved such as economies of scales, competition leading to efficiency, the spread of modern technology, a wider choice of goods for the population, foreign exchange, an expansion of the learning curve, efficient resource allocation and worldwide efficiency.

² Aggregate demand is know as the sum of all the goods and services demanded/ produced in the economy. It takes into account the consumption, investment, government expenditure and net exports.

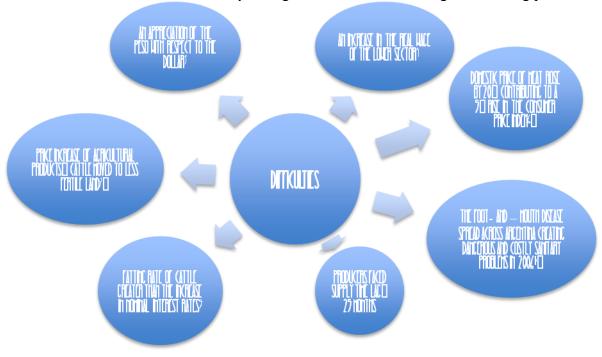
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3. Argentinean government intervention

Despite the economic arguments in favour of international trade, most countries operate trade barriers, which reduce international trade flows. These barriers are referred to as "protectionism" as they are designed to "protect" domestic producers, domestic consumers and/or domestic workers.

Since the second semester of 2004, Argentina was favoured with a rapidly increasing price of meat in the international market and, therefore, an increased gross margin for cattle producers. Throughout 2005 there was a significant increment in exports due to a surge in the aggregate demand primarily from Russia, Chile, the European Union and the NAFTA countries (North American Free Trade Agreement). This trend in Canada, the United States and the European Union was mostly encouraged by the "Mad Cow" illness outbreak which led to the decline in subsidies towards the agricultural and cattle sector in these countries. At the same time, there was a slight devaluation of the peso with respect to the currencies of competing countries in this business like the Brazilian Real, the Australian dollar (Aussie) and New Zealand dollar (kiwi).

At last but not least, the local demand also contributed to the prosperity of the cattle and meat market during 2005. This took place due to an increase in the real wage of the working class. However the cattle sector was already facing a few difficulties during this thriving period.



³Threatened the profitability of the export business.

⁴Placed further pressure on production and price levels.

⁵Higher profitability levels, cattle stock was retained in the fields and was not sent to the market.

⁶This index reflects the inflation rate therefore, even though the revenue of the producers increased, their profit margin was not as large due to an rise in the costs of production.

⁷Producers decided to employ the most fertile land for crops and not cattle hence, decreasing productivity and efficiency in cattle raising procedures. In consequence, less cattle and more agricultural commodities were starting to be produced.

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Along side the above difficulties, producers faced governmental price control policies aimed at bringing the price of meat down for the local population. This government action consisted in lowering the rate of inflation and in the redistribution of income from the "oligarchic" producers to the consumers. The goal of such actions was to reduce the meat price in order to protect the real wage of the lower and middle class, the main supporters of the Kirchner government.

In order to implement the above policy the government imposed trade barriers for local producers in the international market. Firstly, it enforced a tax on exports, where the producers pay a given tax percentage on the quantity which they export, this percentage altered throughout the years. This had a great impact on the producers since they received, as revenue, the international price minus the percentage of the tax imposed. This can be clearly seen with the formula below along with the graph.

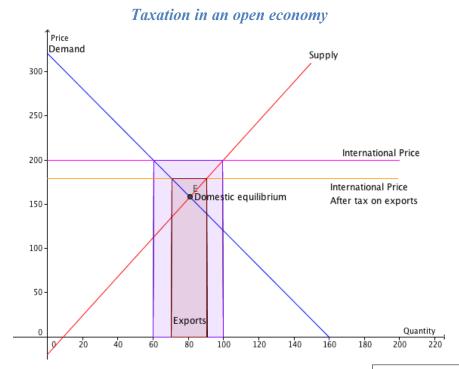
$$R_p = (IP - Z) Q$$

R_p: Producer revenue IP= International Price

Z=Tax

Q= Quantity sold

⁸ It is a virus that affects the hooves, mouth, snout and other parts of certain cloven – hoof animals (goats, sheep, cattle, deer, etc). Eventually these animals end up dying of starvation as they experience lesions, loss of appetite, problems walking and the inability to access food and water. This disease does not present any harms to humans, however countries close their markets to prevent their livestock from being infected or use it as an approach to restrict trade and hence benefit local producers.



Source: Self - Elaboration

The export tax not only leads to government revenue but also lowers the domestic price (supply diverted from exports to the domestic market) of beef, causing a decrease in inflation, creating as counter effect unemployment (reduction of labour force) generally in meat packing sectors. Secondly, the government directly prohibited exports, dropping the price of beef back to the domestic equilibrium. However, this policy was not constant, its use fluctuated over time⁹.

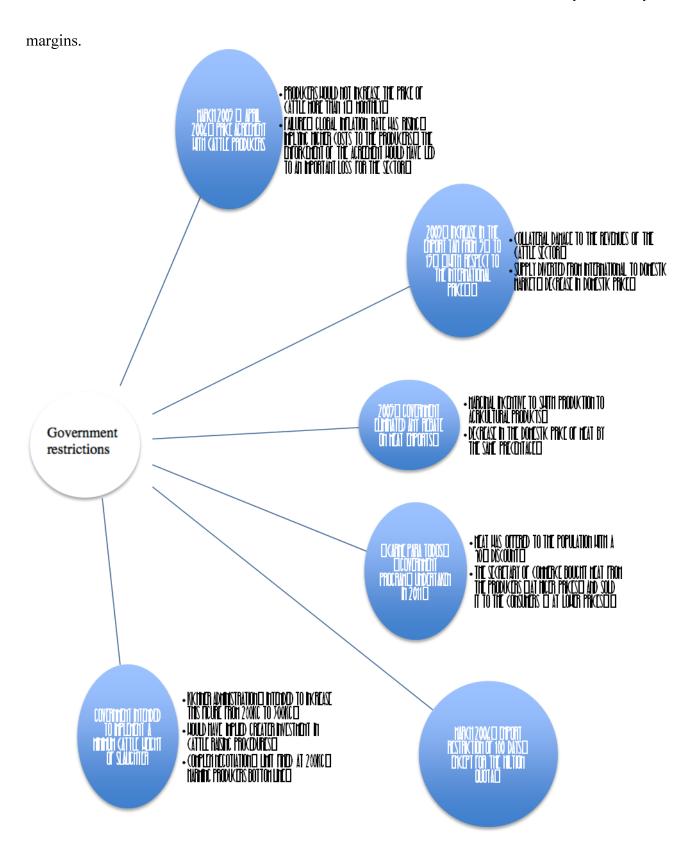
Besides the fact that the Argentinean government has undertaken an increased taxation on exports and prohibitions, the European Union has set restrains as well. It has implemented a "disguised barrier" backed up with the idea of protecting the population from the foot- and — mouth disease that erupted in Argentina ever since 2006¹¹.

On the other hand, the Kirchner government has also altered the domestic situation with respect to cattle flow. It has set restrains on live stockbreeders, greatly damaging their gross

¹⁰ Disguised barriers are also known as non-tariff barriers (administrative obstacles). In this case the Hilton Quota is a health standard, in which the meat exported from Argentina has to meet specific health and safety criteria before the good is allowed to enter the European Union.

⁹It was imposed and relaxed ever since 2006.

¹¹More than thirty countries automatically closed their border (partially or totally) to Argentinean meat exports. As a result, strong government sanitary regulations were created in an attempt to tackle the problem as quickly as possible and maintain international relations ("Foot- and- mouth Disease: An economic problem Attacking Argentina", 2006).

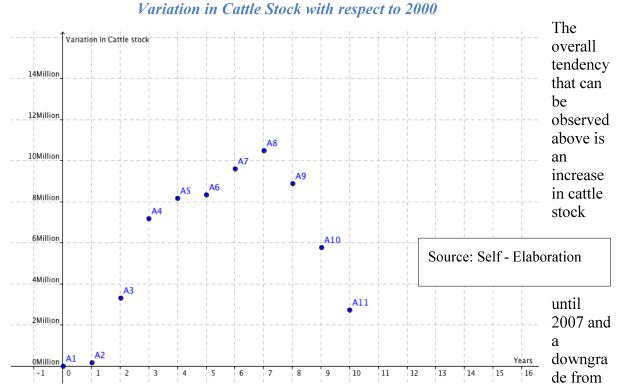


4. Effect on the producer

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In order to view the producers' reactions to such policies, one must analyse how the stock of

Argentinean cattle and the total meat left to the domestic market altered. The information presented below was extracted for SIIA (Sistema Integrador de Información Agropecuaria) and modified as shown in Appendix one.



that year on.

The recovery from the crisis (2001 to 2002) reflects a full cattle cycle. From this point onward, there was worldwide prosperity in the meat market due to a constant increase in aggregate demand. Since 2003 producers responded to higher international meat prices by, retaining cattle in the farms to produce more steers¹². As it was stated in the interview with the Agricultural Engineer, breeder and private consultant Enrique Romero, "The [cattle] cycle is of 9 months of pregnancy, and 20 more months until the young ox or bull is sent to the market, the process [in total] is of 2 yearsand 5 months." Thus the process of response of supply to an increase in demand implies a time lag. Slaughtering all cattleand sending it to the market could achieve an automatic increase in supply, with long-term negative consequences in return¹⁴.

The peak in inventory of livestock can be seen between the years 2006 and 2008. This is the direct consequence of the retention of cows in the farms that started between 2004 and 2005¹⁵. However, government restriction (on exports) started around late 2006 and as stated in the interview by Franco Ochoa, Agricultural Engineer in charge of the production in the Ranch Malal Hue, "With obstacles on exports on behalf of the government, the price of meat would not

¹³ Self-translation of question 4, paragraph one.

¹² New born cattle under four years old

¹⁴Nevertheless, the decision to undertake the breeding of livestock is dependent on the profitability of such activity as well as its opportunity cost, mainly in relation to agricultural production

¹⁵ Producer's decisions to increase supply due to the pressure set upon by a shift in aggregate demand. Supply time lag due to the life cycle of cattle, which is of about two years.

be price in the was trending

Daily Merchandizing in the Liniers S.A Market

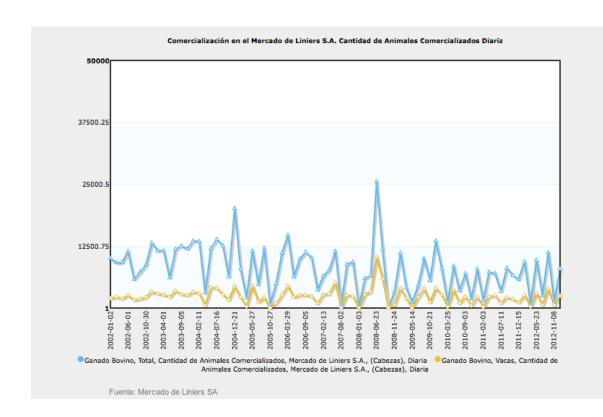
competitive, the domestic market down due to the tax

on exports imposed by the government, making it increasingly harder for the producer to generate meat in a cost-effective [profitable] manner, since the costs to achieve these kilos are increasingly higher." ¹⁶

Since producer's encountered difficulties with exports, meat supply switched to the domestic market. However, the domestic price of meat tends to be substantially below the international price, decreasing the producers' revenue. In addition, inflation was increasing the costs of the factors of production leading to an overall decrease in the bottom line profit of the activity. Enrique Romero explained, "By setting a limit on exports, theprices are determined exclusively by the domestic market and this price loses value with respect to inflation." This has ultimately had an effect on all producers, both big and small.

By 2009, the increasing inflation and export restrictions caused a complete loss in interest towards investment in the cattle market from private and public investors. Franco Ochoa stated: "The producer is losing profit margins because of the costs that go along with the inflation and with the greater tax pressure, especially the real estate tax rate and the tax on road access. The road tax is a mockery, the money accumulated by the government is not reflected in the improvement of neighbouring dirt roads that trucks have to circulate with production, machinery, etc." ¹⁸

This led to the acceleration in the slaughtering of cattle, hence the great difference seen after the peak, A8, in 2009. As stated by Franco Ochoa¹⁹, "After the slaughtering of livestock in the year 2009, the producers have not been able to fully recover." This decrease of inventory from 2010 can be clearly observed in the graph on page twelve along with the one below. The pronounced spikes in the daily merchandizing data of 2008 and 2009 explain what is seen in the cattle stock graph. As merchandizing of cows increased, cattle stock decreased.



Blue:
Total
bovi
ne
cattle
(head
s)
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merc

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ialized in the market daily Yellow: Total bovine cows (heads) commercialized in the market daily



Those that can have speers, thus the main determinant factor of production (machine of more cows)

Higher number of cows sent to the market = Objective to decrease production

The government has manipulated the large-scale and small-scale producers in order to have them provide what the government wants at a given price. This has been responsible for the decrease in the amount of producers, as they switched to more profitable activities such as soy production.

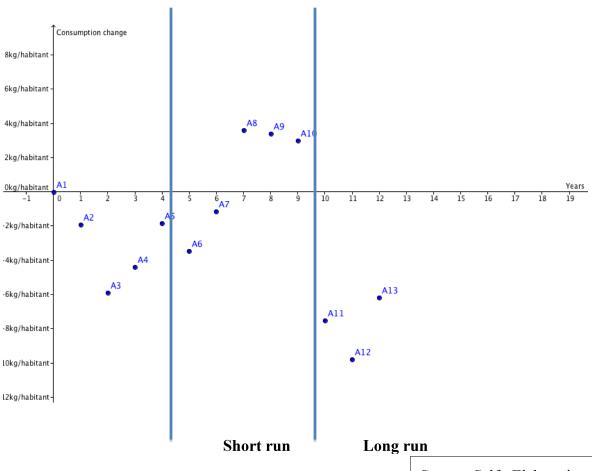
There have been attempts to retain livestock between 2011 and 2012 in order reboot the production of cattle, but the inclement weather has not collaborated (drought) to this process. "The refitting of livestock is going to take a long time. The large producer, might be more likely to maintain a certain level of refitting, but difficulty is seen for the small and medium-sized producers," concluded Franco Ochoa²⁰.

²⁰ Self-translation from the interview of a section in paragraph three, question four.

5. Effect on the Domestic Market

In order to analyse the effect government intervention had in the meat industry it is indispensable to assess the domestic market in further detail. Economic policies have long and short term effects. So as to evaluate Argentina's cattle market for the last decade it is important to consider the consumption and price changes that took place in this period. The information below was extracted from the SIIA (Sistema Integrador de Información Agropecuaria) and it was modified in Appendix Two.

Meat Consumption Change 2000 - 2012

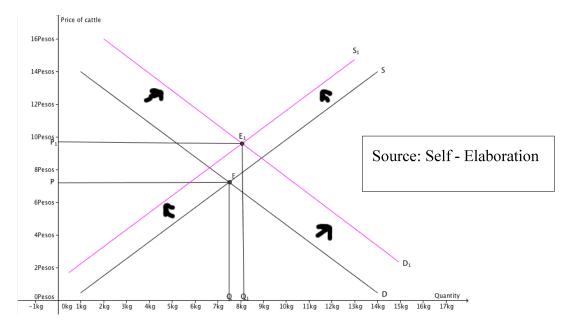


Source: Self - Elaboration

From the graph shown above, the peak years of consumption were from 2007 to 2009, contrasting with the peak concentration of cattle stock in the fields from 2006 to 2008. What caused this contrast are two events, which have overlapped each other. First of all, domestic demand increased as the real wage of the population increased, enabling the average Argentinean to buy more meat. Due to this trend, there was a domestic shift of the demand curve to the right, increasing demand and causing prices to rise.

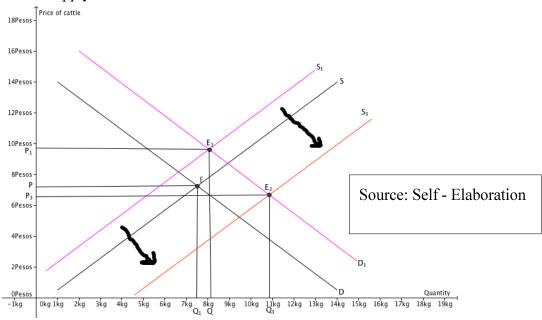
At the same time, due to speculation, expected higher prices in the future, supply decreased, shifting the curve to the left.

Stage One- Shift in demand and supply



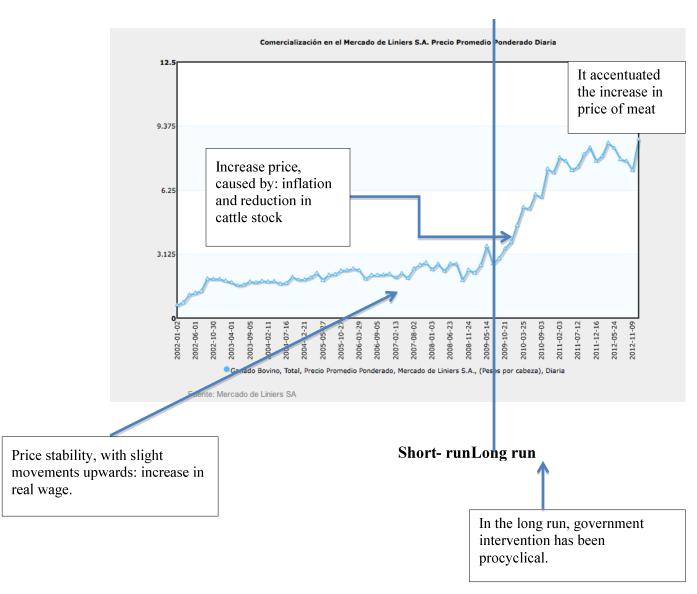
Nevertheless, this speculation was discouraged by government intervention. The slaughtering of cattle increased and profitability was lost, therefore, shifting the supply curve to the right. This increment in supply was able to finance even more consumption at lower prices in the new demand curve. It is important to note that there was a time lag involved between the shifts in the supply curve.

Stage Two- Shift in supply



Regardless, this was an unrealistic position to maintain in the long run. In 2009, the overall cattle stock sent to the market greatly increased as a result of producers shifting to a more profitable activity than cattle raising. Shortly after this liquidation of cattle stock there was a meat supply shortage, where the high level of consumption could not be maintained. In consequence, the price of meat skyrocketed. This high price led to a decrease in consumption rates that bottomed in 2011. Later in 2012, in an attempt to increase the purchase of meat of the middle and lower class, the government launched the Carne Para Todos program. This policy led to a drop in profitability of the cattle raisers, an increase in liquidation, hence more cattle in the market.

Daily Average Price of Meat (Pesos per head) in the Liniers S.A Market



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Since 2010, the daily average price of meat (pesos per head) more than doubled. In contrast, by 2012 there was a sudden drop in price, caused by, as stated by the member of the Chamber of Industry and cattle commerce, Miguel Schiariti, "The livestock breeding sector lost 13% of its return and fell 21% during the winter, this is what justifies the shed of females in the market." ²¹

What took place in 2012 was a retention of cows in the farms as there was speculation for profitability to increase throughout the year. However this was not the case as government action did not back down and kept deterring the efforts of cattle producers to make a profit. The meat industry's profit margins decreased dramatically and producers lost incentive to raise cattle. In effect, most producers decided to decrease their percentage activity dedicated to cattle and switched to a more profitable activity, as it happened around 2006 and 2007.²²

It can be predicted that the prices in 2013 will tend to rise, as the same pattern seen throughout the Argentinean cattle cycle will have a tendency to repeat itself. As a side effect, the market size will gradually decrease as government intervention leads to uncertainty and a greater risk margin, which is too high in order to invest. Speculation is nearly worthless as the government has gained control of cattle production and has not been able to exploit its comparative advantage in world markets.

²¹ Self-translation of question four, paragraph four in the interview.

²² A constant repetition of events.

6. Trade with the international market

Not only the situation within Argentina is fundamental to this study, but also the interaction of Argentinean meat exports with the international market (at least during the time lapse when exports were allowed). The following data collection was obtained from the Consorcio de Exportadores de Carnes Argentina, showing how this relationship has fluctuated over the last eleven years:

Argentinean Exports of Bovine Meat yearly 23

Year	Tons exported (Thousands)	Cost of FOB (Billions)	Price of meat (Thousands of dollars/ton)
2000	342	637	1,806
2001	152	228	1,414
2002	351	446	1,289
2003	393	577	1,467
2004	632	973	1,541
2005	771	1295	1,679
2006	565	1200	2,123
2007	539	1281	2,377
2008	429	1486	3,462
2009	661	1653	2,499
2010	310	922	2,974
2011	251	1267	5,049

Fuente: Consorcio de Exportadores de Carnes Argentinas a partir de datos de SAGPyA, SENASA y elaboración propia.

This empirical evidence backs up the points mention throughout the paper. The highest exports where reached in 2005, with a total of 771,000 tons of meat exported to the international market, making Argentina the world's third largest exporter of beef. A year later, a decrease of approximately 206,000 tons of meat occurred as restrictions were implemented. This drop continued until 2009, when the tons of meat exported raised considerably. This uptick took place due to the denial of the Resolution number 125, which was an attempt to increase the meat export tax as the prices of the commodities increased worldwide. This political defeat lead to the relaxation of the export quota given the mid term election held at the end of 2009. From this year on, meat exports plunged to more than half of what they were. Since 2009 producers were shifting their production to other more profitable activities.

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²³ Self translation from the original document

7. Conclusion

The aim of this study was to describe the way government intervention has affected both the Argentinean consumption and production of the cattle market from 2000 to 2012. Overall, the data obtained and analysed from SIIA reflected that the price of meat from 2005 up to 2009 was rather stable. In 2010, on the other hand, a steep increase in prices, which are expected to continue in the future, was seen.

The main cause behind this change in prices is the government mentality, which appears to believe that government power is above the natural forces of economics. Producers are mainly driven by profitability but government interaction has caused a distortion in such figures. The government has ignored the simple concept of comparative advantage, which would have led to improved economical growth and overall welfare. Eventually, this hypothetical more prosperous economy would have implied greater prices, but government policies have been aimed at the short-term benefits for consumers.

As soon as an increase in prices was seen in the international market, the governments first concern was to stop its influence on the domestic inflation and the negative effect on the purchasing power of urban wages. Blinded by this objective, they have single handily reduced the comparative advantage of cattle raising in Argentina. Consumption increased as prices decreased and remained stable from 2005 to 2009 (short term) but it significantly dropped between 2010 and 2012 (long term), as prices rose. In order to generate this increase in consumption, the government reduced all benefits for livestock breeding and converted the activity into a constant concern as the unpredictability of the government has paralyzed investor activity. Domestic market prices are below any sustainable profitability level primarily due to inflation in the cost of domestic inputs, maximum prices of meat and an exchange rate policy oriented towards a devaluation rate below the domestic inflation. In the long run, this situation is expected to improve as cattle stock was reduced to the point of scarcity. This reduction has affected employment levels in the cattle-raising sector. Concluding, the government has generated inflation and unemployment, stagflation in the cattle sector.

The effects of government intervention in the cattle industry were clearly reflected in the interviews presented along the paper. Beside this interview, a deeper understanding could have been developed if two interviews of cattle producers would have been compared. In addition, it would have been interesting to analyse how the actual sellers of meat have responded to the change in supply and their point of view on the subject ever since the Kirchner government.

It is important to consider the lack of transparency of the Argentinean government when it comes to economical data and statistics. In a few words, this study was an attempt to formulate a theoretical point of view on why the meat industry has been so dependent on government policy and politics. After all, this seems to be the only reason why this industry is not currently thriving in the international market.

References:

- 1. Arelovich, H. M., Bravo, R. D., & Martinez, M. F. (n.d.). Development, characteristics, and trends for beef cattle production in Argentina. *Animal Frontiers*. Retrieved May 9, 2013, from http://animalfrontiers.org/content/1/2/37.full
- 2. Consorcio de Exportaciones de Carnes Argentina (Exportaciones de Carnes bovinas Serie Histórica 1970 2011). Retrived from http://www.abc-consorcio.com.ar/
- 3. Hal R. Varian (1987). *Intermediate Microeconomics*. University of Michigan: W.W. Norton& Company, Inc.
- 4. Jack Hirshleifer (1976). *Price Theory and Applications (2nd ed.)*. Los Angeles, LA (UCLA): Prentice-Hall.
- 5. Jagdish N.Bhagwati (ED). (1981). *International Trade: Selected Readings*. MIT: The MIT Press.
- 6. Miller R.L, Wall N., Myers D., Maunder P. (2000). Economics Explained (revised 3rd ed.). HarperCollins Publishers Limited.
- 7. Richard E. Caves & Ronald W. Jones. (1981). *World Trade and Payments, An introduction (3rd ed.)*. Harvard university & University of Rochester: Little Brown and Company.
- 8. Sistema Integrador de Information Agropecuaria. Ministerio de Agricultura, Ganaderia y Pesca. Presidencia de la Nacion. Retrieved from: http://www.siia.gov.ar/
- 9. Toranzos Torino, Guilermo Nicanor (2009). *La competividad y negociaciones internacionales de la carne bovina Argentina*. Retrieved from Sociedad Rural Argentina.
- 10. Toranzos Torino, Guilermo Nicanor (2010). La producción y comercialización de carne a pasto: una ventaja de diferenciación. Retrieved from Sociedad Rural Argentina.
- 11. Universia Knowledge@Wharton. "Foot-and-mouth Disease: An Economic Problem Attacking Argentina ." *Universia Knowledge@Wharton*. Wharton School, 26 Feb. 2006. Web. 28 July 2013.
 - http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=english&id=11">http://www.wharton.universia.net/index.cfm?fa=viewfeature&language=en

Appendix 1

Calculations for the total cattle sent to the market between 2000 and 2010. This was done with respect to the year 2000.

Year	Base Years	Base values (Two decimal
		places) in millions
2000	0	0
2001	1	0.18
2002	2	3.3
2003	3	7.20
2004	4	8.17
2005	5	8.36
2006	6	9.62
2007	7	10.05
2008	8	8.91
2009	9	5.80
2010	10	2.75

Appendix 2

Calculations of total consumptionbetween 2000 and 2012, this was done with respect to the year 2000.

Year	Base Years	Base values (Two decimal
		places) in kg/habitant
2000	0	0
2001	1	-1.93
2002	2	-5.91
2003	3	-4.38
2004	4	-1.84
2005	5	-3.46
2006	6	-1.14
2007	7	3.6
2008	8	3.41
2009	9	3.07
2010	10	-7.52
2011	11	-9.77
2012	12	-6.19

Appendix 3 – Translation of questions in the interviews

- 1. What are the main risk factors observed in raising livestock?
- 2. How does government intervention today affect the agricultural market?
- **3.** How important are today's relative prices between meat and cereals (especially soybean) in decision making, in terms of how much land area is dedicated to each? What percentage of your business is livestock orientated?
- **4.** How long is your "cattle cycle", from gestation until the bull is sent to slaughter? Do you consider that the situation today is orientated towards the retention of livestock in the fields in order to replenish the cattle stock?
- **5.** How would you rate the health situation of cattle stock? Do you consider that the government helps in this task?
- **6.** Do you think that the public infrastructure of roads, technology consulting and tax pressure levels facilitate farming and stock breeding?

Appendix 4-Interview response obtained from the Ranch Malal Hue

1-¿Cuáles son los principales factores de riesgos que ve actualmente para la actividad ganadera?

El aumento de costos en los insumos de sanidad, verdeos y pasturas y el estacionamiento del precio por la frenada del consumo debido a la misma inflación que aumenta los costos. "Ing. Agr. Enrique Romero, Criador, asesor privado".

Con trabas en la exportación por parte del gobierno, el precio de la carne no va ser competitivo, los precios del mercado interno están por debajo, costándole cada vez más al productor generar carne en forma rentable ya que los costos para lograr esos kilos son cada vez más elevados. Ing. Agr. Franco Ochoa, Encargado producción Estancia Malal Hue"

2-¿Cómo afecta hoy la intervención del Gobierno en el mercado agropecuario?

Al limitar la exportación, los precios se fijan exclusivamente por el mercado interno y este precio pierde valor con respecto a la inflación. (Ing. Agr. Enrique Romero, Criador, asesor privado.)

Veo trabas muy importantes en cuanto a las exportaciones de cereales, caso del trigo y en menor medida de maíz. En la campaña 2012, el gobierno anuncio en el mes de junio una apertura para exportar trigo de 6 millones de toneladas, el anuncio fue realizado cuando gran parte de la siembra a nivel país estaba avanzada. El productor decide la siembra de los cultivos con 3 a 4 meses de anticipación, se analizan muchos factores antes de decidir que cultivos sembrar; lamentablemente hoy se decide sembrar el cultivo más rentable y se descuidan las rotaciones adecuadas para preservar la tierra, esto es debido a una cuestión de precios y trabas que obligan al productor a sembrar lo que el gobierno quiere. En la campaña 2011-2012, quien iba pensar en sembrar trigo si la exportaciones estaban cerradas y el mercado interno no asegura si ibas a poder colocar tu trigo por falta de cupos o por ciertos parámetros de calidad que exigen los molinos muy difíciles de conseguir por el productor según la zona del país donde siembre y por el paquete tecnológico que tiene que utilizar para lograr un cultivo de calidad con un costo que no lo devuelve el precio del cereal. Más importante aún, además de estas trabas, como va a pensar un productor en sembrar trigo si todavía tenía en bolsones o acopio la cosecha del año pasado sin poder vender.

Este año, el gobierno acaba de anunciar en marzo, la apertura de exportaciones por 5-6 millones de toneladas de trigo, esto es algo positivo para el productor ya que puede realizar ventas a futuro colocando anticipadamente su cosecha. En mi opinión personal, creo que el gobierno lanzó este anuncio debido a que en la campaña anterior el productor dejo de sembrar trigo y lo reemplazo por cebada forrajera y cervecera, lo que provoco una caída muy importante en la superficie de trigo. Si bien la apertura de 5-6 millones de toneladas de trigo para exportación es un hecho, el productor tiene cierta desconfianza hacia el gobierno y si bien seguramente aumente la superficie de trigo, se va a seguir sembrando bastante cebada forrajera para exportación, de ser así el gobierno puede llegar a poner trabas en el mercado de cebada.

En el caso del maíz, las trabas a las exportaciones juegan un papel totalmente negativo. El cultivo de maíz tiene un alto costo por hectárea de implantación, siendo un cultivo muy exigente en agua para obtener buenos rindes, si el año viene seco, el productor no salva sus costos. Sumado a esto corre el riesgo de no poder vender su cosecha.

En cuanto a soja, con las retenciones del gobierno, bajan los ingresos en el sector agrario Argentino. "Ing Agr. Franco Ochoa, Encargado producción Estancia Malal Hue"

3-¿Cuán importantes son hoy los precios relativos entre la carne y los cereales (especialmente la soja) para decidir el área dedicada a la ganadería en su actividad agropecuaria? ¿Qué porcentaje de su actividad es ganadera?

Si bien la soja tiene una buena rentabilidad en el corto plazo, el aumento de los insumos de siembra ha hecho que el negocio en campos inferiores y en campos alquilados sea de mucho riesgo. El 70 % de mi actividad es ganadera. "Ing. Agr. Enrique Romero, criador, asesor privado".

Respecto al establecimiento donde yo trabajo, es un campo de excelente calidad en cuanto a fertilidad del suelo (Apto 100 % agricultura), lo que hace que la siembra de soja genere un ingreso mayor que la ganadería caso de cría, en invernada los valores se pueden acercar más a la soja complementando con un encierre a corral para la terminación del novillo.

El 10 % de la actividad en Malal Hue es ganadera. "Ing Agr. Franco Ochoa, Encargado producción Estancia Malal Hue".

4-¿En cuanto tiempo estima su "ciclo ganadero", es decir desde la gestación hasta que el novillo es enviado a faena? Hoy considera que el mercado está en un proceso de retención de vientres para reponer su stock ganadero?

El ciclo es de 9 meses de gestación hasta los 20 meses de venta del novillo o toro en mi caso, es decir 2 años y 5 meses. "Ing. Agr. Enrique Romero, criador, asesor privado".

Según el consultor privado Víctor Tonelli, en una nota resiente al diario "La Nación", este año va haber mayor oferta de terneros y terneras que en 2012 y menor porcentaje de terneras retenidas para madres.

En cuanto a mi opinión personal, luego de la liquidación de vientres del año 2009, el productor ganadero no logra recuperarse; si bien en 2011-2012 hubo un proceso de retención de vientres, hacia fines de 2012 con menos márgenes para los productores sumado a la seca en muchas zonas del país, el proceso de retención de vientres se desacelero "La reposición del stock ganadero va llevar mucho tiempo". El productor grande, tal vez tenga más posibilidades de mantener un cierto nivel de reposición, pero para los productores pequeños y medianos lo veo muy difícil. "ing. Agr. Franco Ochoa, Encargado producción Estancia Malal Hue".

Según el titular de la Cámara de Industria y comercio de carnes, Miguel Schiariti, aseguró que termino la "retención de vientres" en la Argentina. El porcentaje de hembras faenadas esta en punto de equilibrio. A principios de 2012, se daba un proceso de retención de hembras, pero a medida que transcurrió el año, la faena fue aumentando en virtud de la caída de rentabilidad del sector de cría. De acuerdo con los datos de la Cámara, el sector de cría ganadero perdió el 13 % de rentabilidad y cayo el 21 % en invernada; esto es lo que justifica que se deshagan de las hembras.

5-¿Cómo clasificaría la situación sanitaria del stock ganadero? Considera que el gobierno ayuda en esta tarea?

El productor ganadero de cierta escala (más de 300 cabezas) tiene buena sanidad, se ha ido terminando el productor chico (menos de 100 cabezas). Los chicos son en general empleados de campos que tienen permisos o pequeños productores que no manejan bien su sanidad y tienen una economía de subsistencia. Entiendo que hay algunos planes sanitarios y de pasturas pero en

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Nota B

general mal manejados porque se dan créditos o semillas para pasturas y verdeos pero no se hace un seguimiento para controlar si se usan bien esos recursos. "Ing. Agr. Enrique Romero, criador, asesor privado".

Personalmente veo que lo realizado a nivel país en forma sería y controlada, fue erradicar la fiebre Aftosa por parte del SENASA,realizando un seguimiento muy estricto en cuanto a las vacunaciones. "Ing Agr. Franco Ochoa, Encargado producción Estancia Malal Hue".

6-¿Considera que la infraestructura pública de caminos, asesoramiento tecnológico y niveles de presión tributaria al sector facilitan su actividad agropecuaria?

NO- La infraestructura y presión tributaria son muy negativas. El asesoramiento tecnológico es bueno pero mal implementado. "Ing. Agr. Enrique Romero, criador, asesor privado".

El productor va perdiendo márgenes por los costos que suben junto con la inflación y con la mayor presión tributaria, sobre todo el impuesto inmobiliario y la tasa vial.

La tasa vial es una burla, la recaudación por parte del gobierno no se refleja en arreglos de caminos de tierra vecinales por donde circulan los camiones con la producción, maquinarias, etc. Las rutas que van hacia los puertos, están siendo destruidas por los camiones y el gobierno no se preocupa por arreglarlas.

La tecnología e investigación es muy buena por parte de instituciones que dependen del gobierno como INTA, donde se investiga y transmite información vía Internet, publicaciones y jornadas a campo o dentro de la institución.

Si bien hay productores que tienen la posibilidad de acercarse a estas instituciones o informarse por otros medios, hay muchos que carecen de los recursos para acceder a la información. El gobierno tendría que asesorar tecnológicamente al productor en forma más directa. "Ing Agr. Franco Ochoa, Encargado producción Estancia Malal Hue".