

The High Cost of Basic Foods in Panama Causes Social Unrest.

Reyes Arturo Valverde Batista

Profesor Tiempo Completo de la Facultad de Economía de la Universidad de Panamá.

E-mail: ecoartuval@yahoo.com

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Abstract

69% of the studied population considers that the regularization of 22 products of the Panamanian market basket has not been an effective measure to reduce the negative impact of inflation in every family's budget. Objective was: study the impact that has on the Panamanian consumer, the high cost of the basic shopping basket, based on the inflation experienced between the year 2003 and the year 2014. The research is descriptive and the same design rests in the hypothetical approach - deductive, which tries to validate the hypothesis raised through the correlation of variables employees, using the method of regression. The data are obtained through the application of 892 surveys in communities to the West of the city of Panama. The results serve for national authorities to take decisions to establish public policies to improve the status of consumers.

Keywords: High cost of the basket Basic, inflation, consumer, loss of the power purchasing, products regulated.

1.0 Introduction

One of the situations that have led economists from around world to perform various investigations, it has been the relationship between the increase of oil and inflation since 1973, since the nationalization of the oil is given by the Arab countries. Considering the reality experienced by citizens worldwide today, surprised to learn that the energy crisis of 1973 was because the price of oil went from \$ 3 to \$.12 over a period of two years (Salazar, 2009), exceeded event between 2003 and 2008, where the passage price of \$.25 to \$.147 about, or nearly six times.

Inflation as economic phenomenon has impact on the high cost of living (the cost of the basket is reflected in 1.7 times more than the rate of inflation overall, clear in the investigated period), considering that since 2003 the increase of the oil barrel shoot prices of most of the products of the basic basket. See Fig 1. For the 2003 the cost of the basket basic was about them B / .184.89 growing in 36.9% for 2008, located in B. 253.04 considering that that year was the maximum price of the barrel of oil.

This condition affects consumers, which in possessing miscellaneous income, have a different result in consumption of around 50 products of the basic basket, understanding that those with lower incomes are located in the approach Hicks (Huertas, 2008) , which according to the budget constraint, they acquire the basket that allows

maximum utility, which in this case is food. The loss of purchasing power of Panamanians has been since 2003 of 43.1%, which means that a dollar of 2003 in 2014¹ only worth about fifty-seven cents.

In order to alleviate the high cost of the basic food basket, the national government formulates and implements Executive Order 165 of July 1, 2014, in which 22 products are regulated or whether in products such as babilla, steak tape bone ground first meat, hock, breast, whole chicken Panama, chop regular pork, rice first (1 and 5 pounds), yellow onions, yams, potatoes and domestic tomatoes, cassava, medium eggs (unit and dozen), milk powder, lentils, macaroni, bread, white bread, beans, yellow processed American cheese, beef sausage and tuna (Lopez, 2014)².

2.0 Objective of the Study

- Diagnose the conditions of inflation, whereas their probable cause.
- Determine the socio-economic conditions of the population studied
- Know those investigated food tastes and preference.
- Infer the results according to the methodology of the regression between the variables studied.

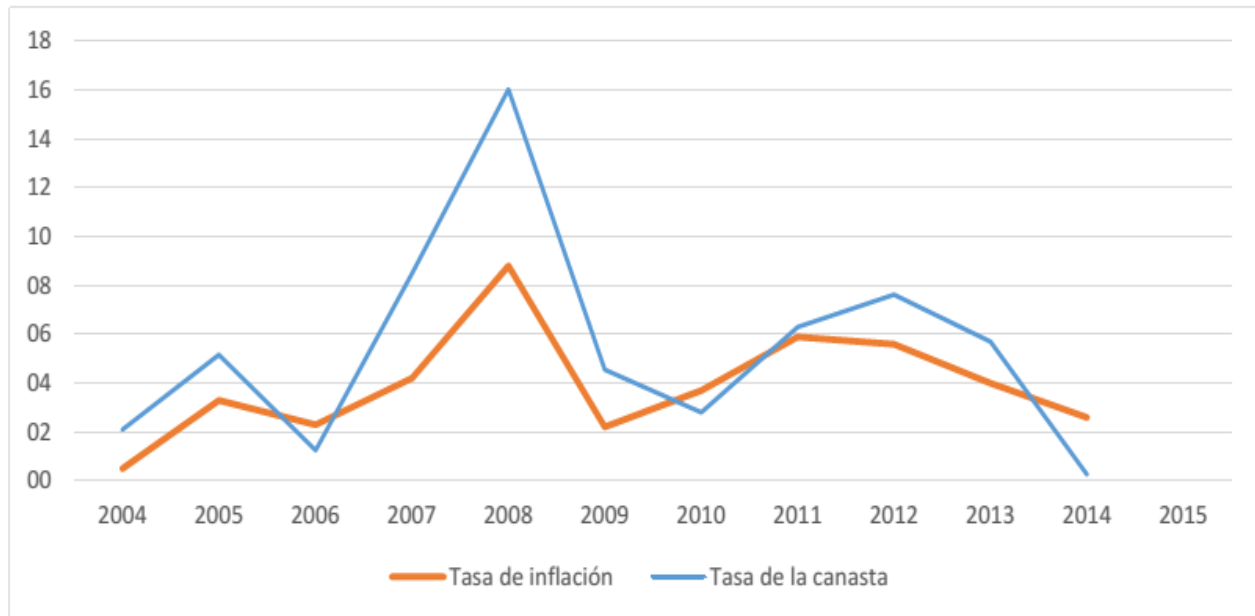
3.0 Methodology

The research is descriptive based on primary source (a questionnaire of 26 questions, of which 14 are closed and 12 open) and secondary information (XI Population Census and VII housing, labor statistics considering the labor market, August 2015 and daily availability of calories, proteins and fats from 1993 to 2013, all developed by the National Institute of Statistics and Census of the Office of the Comptroller General of Colombia).

For its part, the design of it rests on the hypothetical-deductive approach, which tries to validate the hypothesis through the correlation of the variables used by the regression method.

¹Gazette official of 1 of July of 2014.

²Lopez, Angel. 2014 Panamanian Government extends six months more emergency price controls. The press of Panama. Panama.



Source: Ministry of economy and finance

Figure 1. Relationship of the inflation rate and the rate of change of the Panamanian market basket

Table 1: Cost and variation of the basic basket in the period 2003-2014

Year	Cost of the basic basket	Rate of change
2003	184.89	
2004	188.79	2.1
2005	198.53	5.2
2006	201.01	1.2
2007	218.07	8.5
2008	253.04	16.0
2009	264.54	4.5
2010	271.94	2.8
2011	289.06	6.3
2012	311.09	7.6
2013	328.80	5.7
2014	329.66	0.3

Source: Ministry of economy and finance

The margin of error of +/-3% of a universe of 125,090 citizens, where samples were taken 892 64 selected communities³. The collection of the information is gave face to face using 43 surveyors⁴

The result of research in terms of revenue is that the average household income is B / .567.6, considering the five districts, with the village of Barrio Balboa highest with B / . 640.64, followed by Barrio Colon B / . 610.54, Guadeloupe with B / . 578.26, the Coco with B / . 498.86 and Playa Leone with B / . 495. 94.

When comparing the median household income nationally which is B / .576 and obtained in the investigation (see Fig. 2), we can see the close approach, understanding that the range of income was more selected from B / . 401-600 with 35.9% ie 320 selections. This presupposes that consumers of these districts have incomes that will acquire the basic necessities without difficulty.

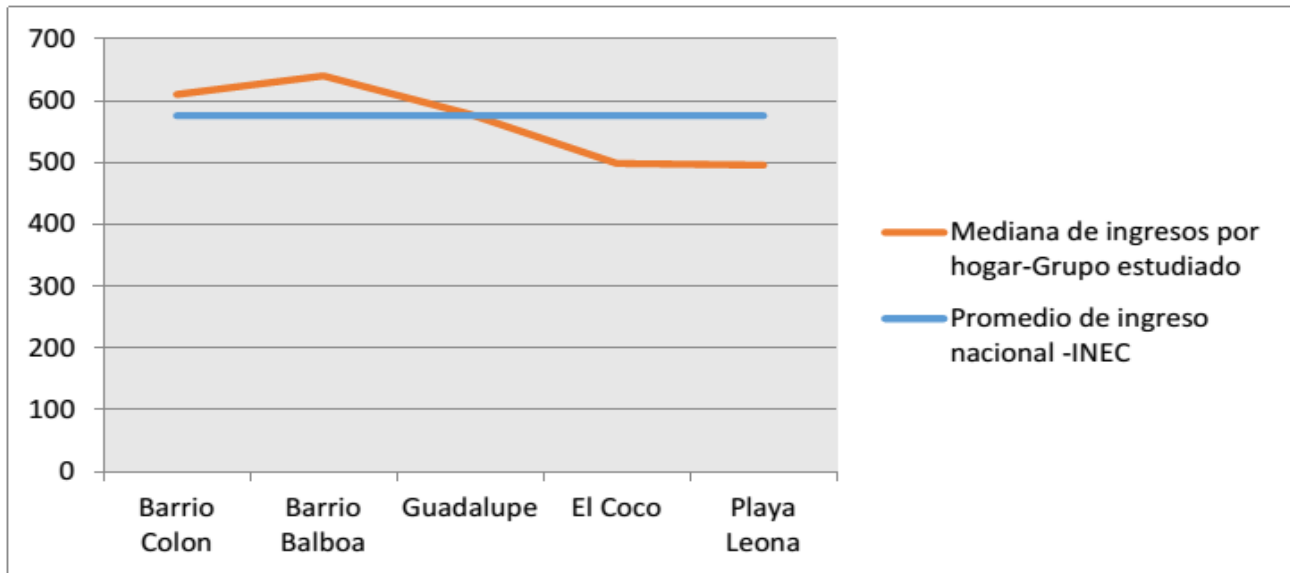
Then with 26.6% are the citizens who derive income from B / .100 and B / .400 (see Table 2) which should replace foods to ensure maximum utility consumption, followed by the segment between B / . 601 to B / . 900 with 24.6%.

When considering the increase in communities west of Panama City, especially in Barrio Balboa and Barrio Colón, it can be said that these new homes have influenced the increase of almost 29% of median income compared to what occurred in the decade last, which she was about B / .442.60 (Valverde, 2013)⁵

³See annex, total population objective.

⁴First year students of the Bachelor of finance and banking of the Faculty of economy.

⁵Valverde Batista, Arturo Reyes. 2013. characterization of the general context of the socio-economic environment of Panama West - approach to external demand of the career in finance and banking. Volume 2, number 1, magazine centers. Panama, pp. 51-65



Source: Developed by the author on the basis of the data obtained from the survey addressed to the selected jurisdictions and data of the INEC.

Figure 2: Comparison of median incomes obtained from research with those obtained at the national level by the INEC in the XI national census of population and housing VII.

Table 2: Levels of income of the population studied

Levels of income B /.	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
100-400	48	21	64	69	35	237
401-600	58	79	59	54	70	320
601-900	41	56	17	40	65	219
901-1000	21	19	13	9	12	74
1001 - more	17	12	7	4	2	42
Total	185	187	160	176	184	892

Source : Developed by the author on the basis of the data obtained from the survey addressed to the selected jurisdictions.

The study population showed that approximately less than one sixth of the same, earns income above the B /. 900, population is also affected by the high cost of living, but with a better budget management.

However, another indicator to be taken into account for the analysis is how many people live at home and thereby determine the conditions of optimal consumption of the population studied. The data express that 50.9% of those

studied are in the range of 4 to 6 people, which complicates the situation of the residents of these selected communities, considering that the average income as finding is B /. 567.6.

Among the districts with the highest participation in this range is Guadalupe with 57.6%, followed Playa Leone with 57.5% (these first two below the national average income) and Barrio Colon with 52.3%, see Table 3.

Table 3: Number of people living per household, considering each township

People Per Household	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
1 to 3	81	105	58	82	65	391
4 to 6	98	76	92	82	106	454
7 to 9	5	5	10	11	13	44
10 more	1	1	0	1	0	3
Total	185	187	160	176	184	892

Source: Prepared by the author based on the data obtained from the survey of the villages of La Chorrera.

better economic situation, as 43.8% of respondents expressed a family of 3 persons maximum. In this range they highlight the districts of Barrio Balboa with 56.1% (the irony

of the economic world, higher income less children to support), followed by the Coco with 46.6% and Barrio Colon with 43.8%.

Finally, 44 households reported having between 7 to 9 people living in the same household, or 4.9%, of which Guadalupe live under this condition 7%, then there are Coco and Playa Leona whose composition in their residents of 6.25%.

Looking at the revenue and keep people, we have to explain how it is financed or who will be responsible for obtaining

the budget for food consumption of basic goods. In these times both members must work to ensure favorable conditions in economic and social terms the family, the data show that, since 88.1% establishes this condition in the sample taken. Looking at table. 4, the village of Barrio Balboa has 178 selections between the two criteria, which is 95.2% of the total in the same, followed Playa Leone with 92.5% and 92.4% Guadalupe.

Table 4: Number of people working at home, considering each township

People who work	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
1	67	81	80	74	106	408
2	76	97	68	73	64	378
3	32	9	12	24	14	91
None	10	0	0	5	0	15
Total	185	187	160	176	184	892

Source: Prepared by the author based on the data obtained from the survey of the selected districts

There is also 91 households selected criteria working up to 3 people per household, or 10.2% of the total, only 1.7% of respondents say that no one at home working, worrying about how difficult this life this times.

The next indicator is important to determine the ability of the population to generate income to meet priority needs,

which is evident with the sample obtained a good education is reflected by having 30.5% with university degrees, percentage very high considering that these stocks are on the outskirts of Panama City, but may be the result of the opening of the Regional University Center of Panama West in 1993 and is undoubtedly its main objective as part of the first house of higher studies the country (Valverde, 2013)⁶.

Table 5: Level study of the population of the five districts investigated

Level of study	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
Primary	35	48	38	22	56	199
Secondary	92	82	87	75	85	421
University	33	57	51	88	43	272
Total	160	187	176	185	184	892

Source: Prepared by the author based on the data obtained from the survey of the selected districts.

Of these 272 selections, 32.3% are of Barrio Colón and 21% are of Barrio Balboa, or more than 50% of university belong to the nearest towns of universities in La Chorrera. Then come the Coco with 18.8%, with 15.8% Guadalupe and finally found it in Playa Leone with 12.1%.

The research shows that the population has mostly high school education or secondary education, with 47.2%, which added to the university states that almost a quarter can generate formal or quality medium to high income. The rest of the population is either primary or 199 people could hardly aspire to perhaps informal jobs or underpaid organizational processes and low ranges.

Rice consumption in the five districts studied reflects a high preference, which is normal to see in every home the food dish where rice is fundamental.

Seeing the table 6, 79.2% of respondents say this, to accompany rice chicken is used, which has a preference of 10.2%, then comes the red meat with 5%, for fourth place preference It is the bread with 1.4% and fifth milk has 1.2%. It is a fact that Panamanians consume cereals as a group of

food (rice and bread), considering that they are intended to satisfy our need to feed at a lower cost that consuming higher quality foods.

Were evaluated with respondents a total of 13 generic products, considering the data of the basic food basket provided by the Ministry of Economy and Finance⁷ and by looking at fig. 3, we found their respective participation in the consumer preferences of the communities selected.

5.0 Result and Discussion

The citizens surveyed reveal that 47% measures, government regulations and processes, make expensive product prices (see Table 7).

⁶Valverde Batista, Arturo Reyes. 2013. analysis of the student population of sixth year of schools in West Panama to determine its aspiration to university degrees. Volume 2 number 1, magazine centers. Panama. pp.19-50.

⁷On the basis of the report of the direction of economic and Social analysis of the MEF. 2015 average caloric cost of the basic family shopping basket of food in the districts of Panama and San Miguelito: years 2003-2014.

In recent years the Government of Panama Martinelli ⁸ raised the minimum wage in three processes, starting in 2009 with an increase between ⁹ and 30% ¹⁰; and subsequently increases in basic food basket of 2.8% for 2010 and 6.3% for 2011 were recorded. In dollar terms, Zone 2¹¹

could be increased to \$ 31 and Zone 1 the increase could reach up to \$ 95, while the increase of the basket was \$ 24.52 until December 2011, which is assumes that the measure if it affects, especially citizens who did not receive adjustments to the companies that pay above the minimum wage.

Table 6: Products that are consumed in La Chorrera

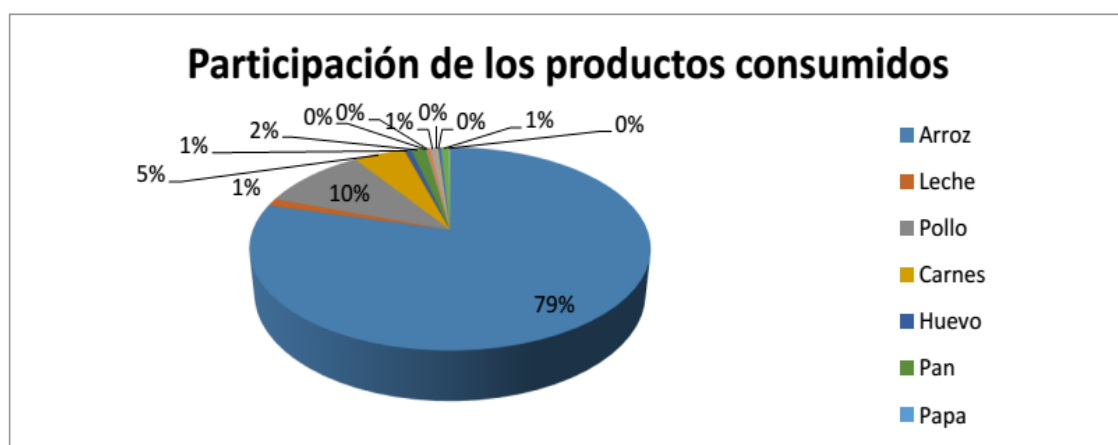
Most consumed products	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
Rice	145	140	139	132	176	732
Milk	3	1	5	2	0	11
Chicken	14	29	17	26	8	94
Red Meat	5	13	18	10	0	46
Egg	1	2		3		6
Bread	8	2		3		13
Potato	1					1
Pasta	3					3
Legume	5		1			6
Jamonilla			1			1
Fruit			3			3
Vegetable stew			7			7
Seafood			1			1
Total	185	187	192	176	184	924

Source: Prepared by the author based on the data obtained from the survey of the selected districts.

Table 7: Factors affecting prices of basic food basket in Panama

People Per Household	Barrio Colon	Barrio Balboa	Leone Beach	Coconut	Guadalupe	Total
1 to 3	73	78	82	113	76	422
4 to 6	44	19	17	18	22	120
7 to 9	51	76	42	25	77	271
10 more	17	14	19	20	9	79
Total	185	187	160	176	184	892

Source: Prepared by the author based on the data obtained from the survey of the selected districts.



Source: Prepared by the author based on the data obtained from the survey of the villages of La Chorrera.

Figure 3: Share of consumption of products by the inhabitants of the five districts investigated.

You can also say that those Panamanians who are not part of the minimum wage (there are on average 250 000 Panamanians within the range of the minimum wage), leaving affected product that there is no economic policy general increase of wages in Panama and therefore these

increases in food basket merman them pocket without counting that the costs of services and products that are not covered in items staples also rise. For 2011, the second process of increasing the minimum wage to workers in the private sector, which is set between 15 and 18% is given and

also in March 2011 had already made an adjustment to public servants for the amount of \$ 50¹¹. For this period, taking reference data MEF, the impact on the cost of food was higher, setting the inflation rate for 2012 at 7.62% and for 2013 at 5.69%, resulting in US \$ 39.74 increase from the 2011; Whereas the increase in wages was absolutely between 52 and 74 dollars, you stay very little to buy other goods or services needed to improve their living standards. By 2013 the third process of raising the minimum wage, which is set between 13 and 27%, placing Panama according Martinelli, with the highest minimum wage in Latin America¹² is presented.

However, apparently with the fall in the price of a barrel of oil at the end of 2014, the increase in staple products were just in the order of 0.26, according to the MEF.

Another measure by population creates distortion in the markets is the regulation of 22 products from July 2014, as it has discouraged domestic producers to continue production of those products, raising the costs of unregulated products and thus affecting most of the population in the country. In general terms, 69% of respondents reject or do not consider it useful to apply the same, or nearly 7 in 10 of the surveyed considered unacceptable to maintain the measure.

But the decisions of both governments are promoted by the rise in oil since 2008 and that it has identified the relevant variables. For this purpose the data are obtained Index Mundi website, which is an economic and Ministry of Economy and Finance of Panama magazine, in order to

confirm or not the hypothesis raised work for this purpose. Below the data are presented:

The correlations of three variables (see Table 8), a multiple correlation coefficient of 0.87 is obtained, also an R² of 0.7620 and R² adjusted to 0.7025, which establishes a relationship between all variables used in the analysis and reveals the following:

$$\text{The function } y = -24.0545 - 0.0023X + 1.7086X^2 \\ (0.0335) \quad (0.3505)$$

According to the results the hypothesis where the increase in the price of a barrel of oil have influenced the overall inflation that has hit Panama since 2003 and therefore accepts also the costs of basic necessities have suffered hikes constantly.

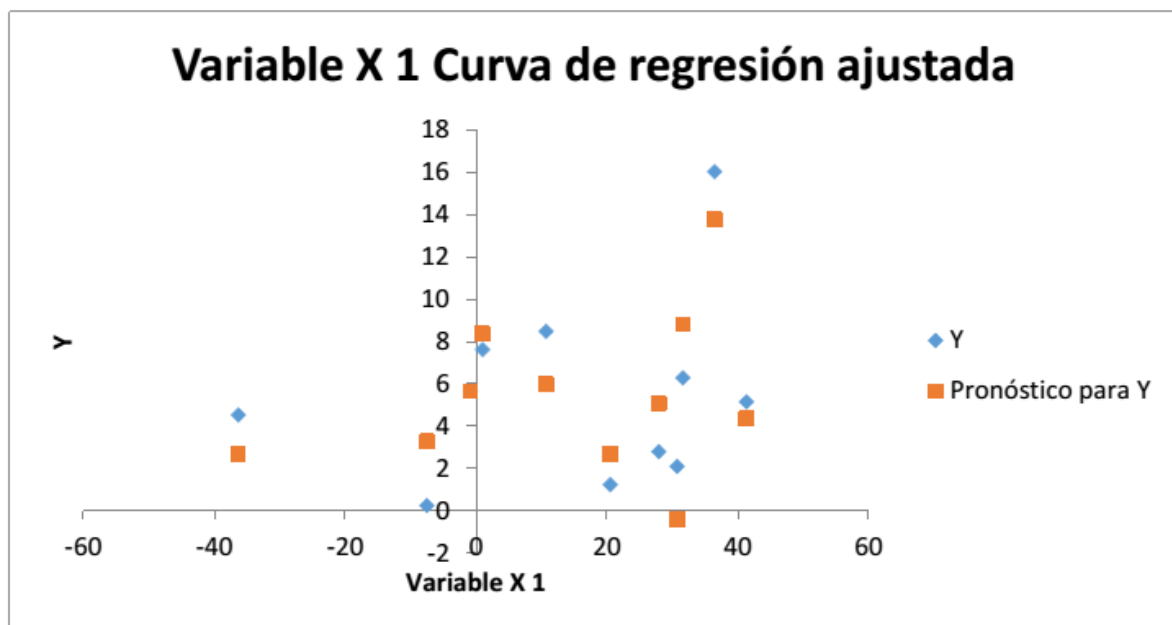
⁸President of Panama from 2009 to 2014.

⁹In December 2009 President Martinelli announced the increase in the minimum wage between 31 to 95 dollars depending on the area. This is part of the international news "Martinelli raises the minimum wage in Panama without an agreement with the trade unions" <http://www.laprensa.com.ni/2009/12/21/internacionales/11049-martinelli-eleva-salario-minimo-en-panama-sin-acuerdo-con-los-sindicatos>

¹⁰Citizens in Panama are classified to increase you the minimum wage, this area includes the communities studied, but many of those investigated derive their income in zone 1 for its proximity to the city of Panama.

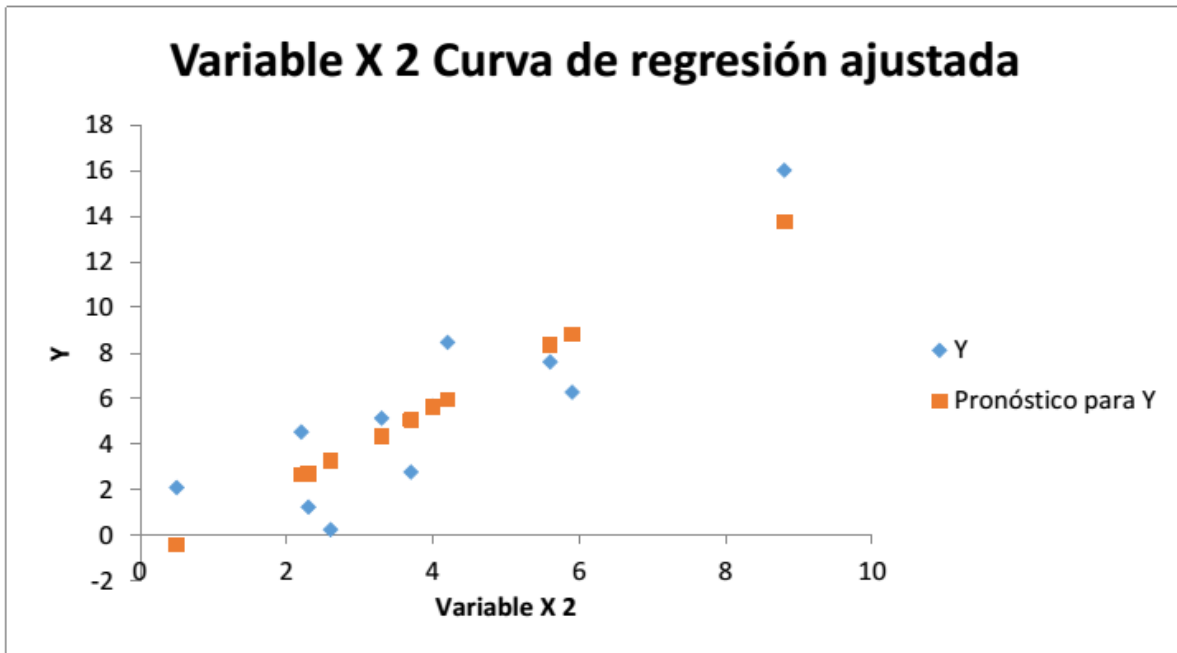
¹¹Based on the news of Europapress "Panama raises the minimum wage between 15% and 18% for 2012" <http://www.europapress.es/economia/laboral-00346/noticia-economia-panama-eleva-salario-minimo-15-18-2012-20111229111604.html>

¹²Based on the news of the nation "Martinelli raises the minimum wage in Panama between 13% and 27%" http://www.nacion.com/mundo/centroamerica/Panama-Ricardo_Martinelli-aumento_salarial_0_1387461398.html



Source: Prepared by the author based on the data obtained from the economic magazine IndexMundi and the Ministry of Economy and Finance.

Figure 4: Curve of regression adjusted of the variable X 1.



Source: Prepared by the author based on the data obtained from the economic magazine IndexMundi and the Ministry of Economy and Finance.

Figure 5: Set the variable regression curve X 2

Table 8: Relationship between the price of a barrel of oil, inflation generated in the period and the cost of the basic basket Panama

Year	Rate of inflation	Cost of the basic basket - \$	Rate	Oil barrel price	Rate
2003		184.89		28.89	
2004	0.5	188.79	2.1	37.8	30.7
2005	3.3	198.53	5.2	53.4	41.3
2006	2.3	201.01	1.2	64.3	20.5
2007	4.2	218.07	8.5	71.1	10.7
2008	8.8	253.04	16.0	97.0	36.4
2009	2.2	264.54	4.5	61.8	-36.3
2010	3.7	271.94	2.8	79.0	27.9
2011	5.6	289.06	6.3	104.0	31.6
2012	5.6	311.09	7.6	105.0	1.0
2013	4.0	328.8	5.7	104.1	-0.9
2014	2.6	329.66	0.3	96.3	-7.5

Source: Prepared by the author based on IndexMundi and MEF of Panama.

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Annex

The study population sample

District	Corregimiento	District	Sample
La Chorrera	Barrio Balboa	Barriada Don Isaac	6
		Barriada El Mañoral	9
		Barriada La Seda	8
		Barriada Martin Sanchez	6
		Barriada Nicolás Solano	5
		Barriada Revolución	12
		Barriada San Antonio N° 2	3
		Barriada San Antonio N° 3	3
		Barriada San Pancho	5
		Barriada Santos Jorge	6
		Barriada Villa Verde	1
		Buena Vista (Principal)	6
		Buena Vista N° 1	3
		El Harino	10
		El Hatillo	13
		La Chorrera	8
		La Rivera	1
		La Tulihueca	15
		Las Albertas	4
		Las Palmitas	8
		Las Torres o Villa del Carmen	1
		Los Chorritos N° 1	5
		Los Guayabitos	17
		Naos o San Nicolás	4
		Paraíso	3
		Peñescal	1
		Residencial Cope	1
	Residencial La Mata de Coco	1	
	San Antonio	11	
	San Nicolás	8	
	Santa Clara	3	
	Barrio Colon	Mastranto	9
		Matadero	10
	Nuevo Limón	4	
	Fuente del Chase	8	
	El Limón	8	
	Maribel	9	
	Revolución	13	
	Trapichito	13	

		Valle Dorado	10
		San Mateo	10
		Campesino	21
		Maria Leticia	11
		Buena Vista	9
		Monte Limar	13
		Caballeriza	6
		Pasito de la vaca	11
		Nuevo chorro	10
		La industrial	10
Coconut	El Coco	100	
	Santa Librada	53	
	Potrero Grande	16	
	Sector el Coco		
	Bello Horizonte	7	
Guadalupe	Altos de San Francisco	67	
	Nueva generación	59	
	Rincón Solano	58	
Leone Beach	The Mitra	40	
	Santa Elena	37	
	Villa Milagro	17	
	La miraculous	29	
	19 de April	15	
	La 24	11	
	Los pinos	11	
Total		892	