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**What drives strong opinions
On the President?
The case of Gloria Macapagal-Arroyo**

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Abstract

The presidential satisfaction ratings released by the Social Weather Station (SWS) every quarter gauges the public's opinion on the president's performance. This paper explains what drives the opinions of respondents who are very satisfied or very dissatisfied with the president. The responses taken from the SWS survey during the third quarter of 2002 are analyzed with the use of survey probit models. The results reveal that regions, education, and expectations of future economic performance determine being very satisfied or being very dissatisfied with the president.

Table of Contents

1.	Introduction.....	6
2.	Contextual Background.....	8
3.	Methodological Framework.....	10
	A. Presidential Satisfaction Function.....	10
	B. Estimation Method.....	11
	C. Data Set and Variables.....	12
	D. Estimation Technique.....	15
4.	Results.....	16
	A. Results for Very Satisfied.....	16
	B. Results for Very Dissatisfied	18
5.	Conclusion.....	21
6.	Bibliography.....	22

List of Tables

1.	Description of Variables	15
2.	Descriptive Statistics	16
3.	Results for Very Satisfied	17
4.	Results for Very Dissatisfied	19

List of Figures

1.	SWS Net Satisfaction Rating on GMA 2001-02	10
2.	SWS Ratings of GMA Very Satisfied vs. Very Dissatisfied.....	10
3.	Growth Rate of Macroeconomic Indicators11

What drives strong opinions on the President?

The Case of Gloria Macapagal-Arroyo

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1. Introduction

The presidential satisfaction ratings released by the Social Weather Station every quarter is one of the most followed social indicators in the country. It is an important indicator on how content, and to some extent, how confident the people are with the performance of the president. A positive net satisfaction rating means the public is generally contented with the president's job, while a negative net satisfaction rating implies the opposite. SWS explains the rating through political, economic, and social events that have transpired at the time the poll was taken.

Economists and political scientists have tried to explain what determines the people's satisfaction on the president. Studies mostly deal with the case of the United States where the Gallup Poll regularly conducts monthly approval surveys of the president. The pioneer article on the topic published in 1970 ignited a discussion that continues up to the present. Scholars argue that both economic and political factors and the length of time the president has been in office affect the way the public evaluates the president's performance.

The pioneering study of Mueller (1970) proposed that four variables affect presidential ratings. These four are economic slumps, coalition of minorities, rally-round-the -flags events, and wars. His results showed an asymmetric relationship between the economy and the ratings. An economic slump harms a president's popularity but an improving economy does not seem to improve ratings. Kenski's paper (1977), on the other hand illustrated that food price increases are associated with declining popularity ratings. Separate regressions for a number of presidents done revealed that Democratic presidents are unaffected by unemployment ratings, unlike Republican presidents whose popularity suffer due to joblessness.

Frey and Schneider (1978) examined the impact of the economic situation and the popularity of the president. Their economic indicators were lagged inflation, unemployment rate, and growth of personal consumption. They found out that a one-percentage point rise in the inflation rate reduces popularity by one half to one percentage point. A one percentage point increase in unemployment decreases popularity by around four percent. Popularity increases by a mere seven-tenths of a percentage point when personal consumption increases by one percent according to the study.

Smyth and Dua (1988) constructed the public's indifference curve between inflation and unemployment in relation to utility in the president. They found out that when both variables are high, modest reductions significantly improve the presidential ratings. However, when these indicators are at low levels, it takes larger and larger reductions to further increase ratings. Chappell (1990) jointly estimated a presidential vote function and presidential approval ratings function for post-war presidents. His results pointed that both GDP growth and inflation matter for both voters and poll respondents, but unemployment seems to have weak effects. Poll respondents are more concerned with inflation and less concerned with GDP growth than voters are. Chappell concluded that voters look at long-term economic performance, while poll respondents consider the current state of the economy.

The most recent study of Smyth and Dua (2003) compared the popularity of Richard Nixon and Bill Clinton after the two were hit with controversies. Their study revealed that the extent the two president's ratings suffered was determined by the macroeconomic condition of the time. They estimated a quadratic social preference function and found out that the effect of the Watergate controversy to Nixon was more damaging than the effect of the Monica Lewinsky scandal to Clinton. They explained that the decline in Nixon's popularity from 58 percent to 24 percent after the Watergate scandal was largely due to economic factors. The scandal only accounted for ten points of the loss, while inflation accounted for twice as much. Bill Clinton's ratings on the other hand, rose from 63 percent to 73 percent after the House vote to impeach him and remained in the 57th percentile thereafter. The findings of Smyth and Dua showed that the good economic conditions in 1998 to the early part of 1999 sustained the president's rating during the impeachment and Senate trial.

These studies show the public's evaluation of the president highly depend on aggregate economic indicators such as inflation and unemployment. This of course implies that the president's policies affect the macroeconomy, which in turn affect people's welfare. When the economy suffers a downturn and there is a reduction in welfare, the public penalizes the president by giving a poor rating.

This paper examines presidential satisfaction ratings in the Philippines. Every quarter, the SWS conducts surveys on political, economic and social issues including presidential satisfaction. Unlike in the Gallup poll where individuals are asked whether or not they approve of the way the president handles his job; SWS respondents can rate the president using a five-point scale. Respondents are asked whether they are very satisfied, somewhat satisfied, neutral, somewhat dissatisfied, or very dissatisfied with the president's performance. This paper is particularly interested in examining the responses of those who say that they are very satisfied or very dissatisfied with the president.

The paper aims to establish the factors that determine the responses of individuals with intense opinions on presidential performance. Who among the population are most opinionated about the way the president does his or her job? Are these opinions based on some welfare enhancing or reducing experience such as a change in income? Do

expectations of the economy's future performance explain these people's responses? These are the questions that the paper intends to answer.

This study utilizes a probit model to determine who among the public is likely to give Gloria Macapagal-Arroyo a rating of very satisfied against all other responses and a rating of very dissatisfied against all other responses in the third quarter of 2002. It examines whether individual characteristics significantly affect responses. The study also checks if changes in income and perceptions of the economy have an effect on these two extreme ratings. At the end of the day, the paper must establish the variables that explain this type of responses.

The succeeding parts of the paper are organized as follows: Section II gives a contextual background of the particular rating to be analyzed; Section III discusses the methodological framework; Section IV presents the results; and Section V concludes the paper.

2. Contextual Background

This section gives a brief background on the presidential satisfaction rating in the third quarter of 2002 and the economic conditions in the second quarter of 2002. This is for the purpose of giving the readers a review of the conditions that might have influenced the rating of the president during the given period. The discussion on the economic situation is based on the previous quarter since information about the economy is lagged by one quarter, and people's expectations are usually formed given the information presently available.

A. Presidential rating

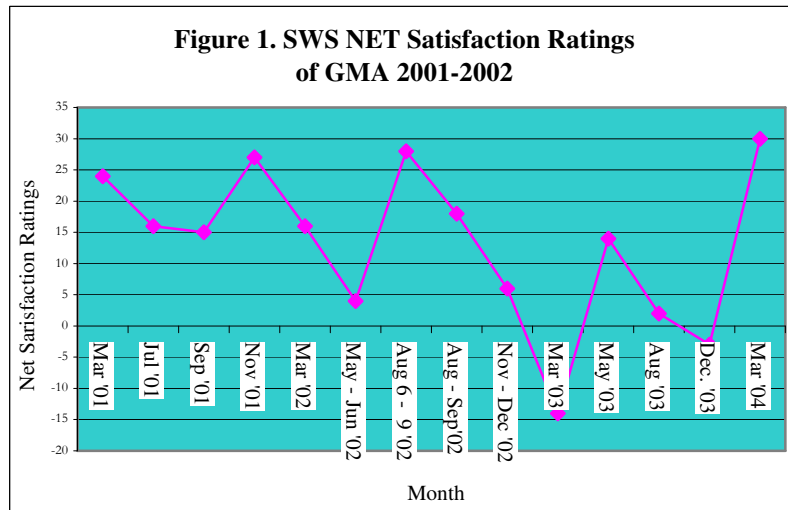
The SWS third quarter survey for 2002 conducted from August 24 to September 8 revealed that 10 percent of the respondents said they were very satisfied with Gloria Macapagal-Arroyo's performance, while 38 percent said they were somewhat satisfied, 21 percent said they were undecided, 20 percent said they were somewhat dissatisfied and 11% said they were very dissatisfied. The rest either said that they were somewhat satisfied, neutral, or somewhat dissatisfied. The media release by SWS stated that the net satisfaction rating¹ of the president at +18 was moderately favorable.

This quarter's result is deemed normal by SWS. The net satisfaction rating is lower than +30 (Mar 2004) and +28 (August 2002, special post State of the Nation Address survey) which were Arroyo's highest, but also nowhere near her all time low of -14 (March 2003). Figure 2.1 illustrates the trend of GMA's ratings over time. It should also be noted that this quarter is the seventh quarter out of GMA's fourteen quarters in her

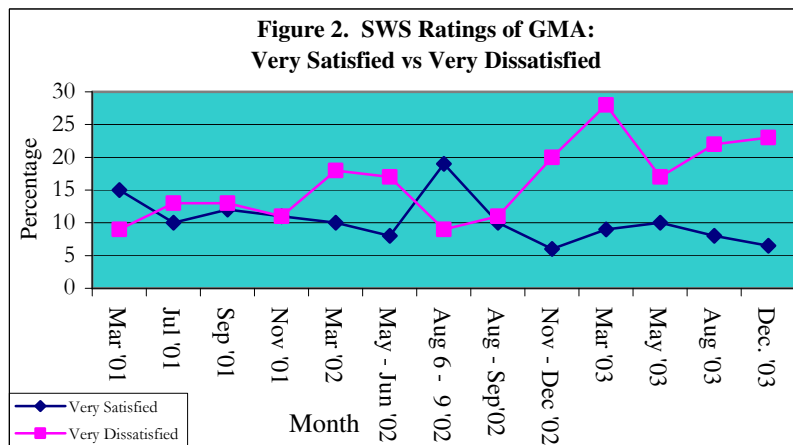
¹ Net satisfaction rating is computed as the percentage of respondents who were satisfied and somewhat satisfied minus the percentage of respondents who were dissatisfied and somewhat dissatisfied.

first term of office. This is an ideal quarter to analyze since "honeymoon effects" have been washed out by this time, and the May 2004 election was considerably far off.

During this period, the percentage of respondents who said they were very satisfied and very dissatisfied was not abnormally high or low compared to other quarters. The difference between the number of individuals who said they were very satisfied with the president and those who said they were very dissatisfied was a mere one percent. Figure 2.2 presents the percentage of respondents who gave extreme ratings in different ratings.



Source: SWS



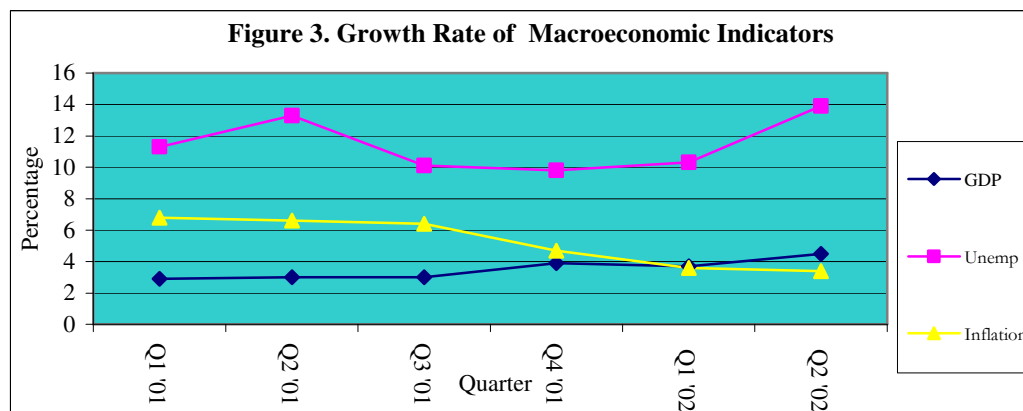
Source: SWS

The issues that dominated the newspapers according to the SWS media release during the time the poll was taken were the resignations of the Raul Roco (secretary of the Department of Education) and Rene Banez (commissioner of the Bureau of Internal Revenues). There were also reports of renewed Abu Sayaf activities and deportations of Filipinos from Sabah. In a favorable light, the news of the killing of the Pentagon Gang

leader came out just as the survey was starting, and the PIATCO case started dominating the headlines towards the end of the poll.

B. Economic situation

The economy, according to the Asia Economic Monitor, performed strongly during the first half of 2002, and despite a global economic slowdown grew at 4.5 percent (year-on-year) in the second quarter which was above the expectations of both the market and the government. Unemployment however rose to 13.9 percent in the said quarter from 10.1 percent in the first quarter. The inflation rate was at 3.4 percent on the average during the second quarter, fell to 2.6 percent in July, and rose to 2.9 percent in August and September. Figure 2.3 illustrates the trend in the quarterly growth rates of GDP, unemployment, and inflation.



Source: Asia Economic Monitor

The East Asia Update reported that agriculture sector grew at 3.5 percent and the industrial sector at 2.9 percent during the first half of the year. Trade increased by 20 percent in the same period due largely to the economic growth in other developing East Asian countries. Personal consumption also grew, but government spending was stagnant. On the fiscal side, the budget deficit continued to be a problem. The government exceeded its full year deficit target as of July that year.

There are other notable developments reported in the Asia Economic Monitor such as the slight depreciation of the peso against the dollar during the first half of 2002 because of the inflow of foreign portfolio investments and overseas workers' remittances. The stock market achieved some gains in the first quarter but these were reversed in the succeeding months. Overall, the performance of the economy was mixed with some indicators improving and others remaining stagnant or even deteriorating.

News reports of the economy's performance came out during the months of August and September. Although the articles highlighted the economic gains, doubts were also raised on the sustainability of the growth. The Asian Development Bank (ADB) commented that the economy faced challenges and vulnerabilities from the fiscal and banking sectors and threats of the El Nino weather pattern. The public's expectation

of future economic performance based on these pieces of information could go either way. Those who are confident in the government might expect the economy to improve, while those who don't might expect things to deteriorate.

3. Methodological framework

A. Presidential satisfaction function

A utility function in the performance of the president must be specified before an econometric model can be constructed. Suppose that,

$$\begin{aligned} \text{VS} &= 1 \text{ if the respondent gives a rating of very satisfied, } u > u^0 \\ &= 0 \text{ if the respondent does otherwise, } u \leq u^0 \end{aligned}$$

on the other hand,

$$\begin{aligned} \text{VD} &= 1 \text{ if the respondent gives a rating of very dissatisfied, } u < u^1 \\ &= 0 \text{ if the respondent does otherwise, } u \geq u^1 \end{aligned}$$

where utility is defined over goods and services,

$$U(X_1, X_2, X_3, \dots, X_n)$$

and the ability to consume these goods and services are affected by the president's policies,

$$X_i(P_1, P_2, P_3, \dots, P_n)$$

which could be economic in nature such as taxes and subsidies or political such as stance on terrorism, etc.

B. Estimation method

Two sets of regressions are estimated: one set is for those respondents who said they were very satisfied with the president, and another set is for those who said they were very dissatisfied with the president. In the first set of regressions, the right hand side variable takes a value of one if the respondent gives a rating of satisfied and zero otherwise. The dependent variable is regressed against several independent variables which are assumed to explain the individuals' responses. On the other hand, the right hand side variable in the second set of regressions takes a value of one if the respondent gives a dissatisfied rating and zero otherwise. The dependent variable is regressed against the same independent variables included in the first set of regressions.

This type of estimation requires the use of probit models. The succeeding discussion is a general description of the probit model which follows that of Madalla (2001). Assume the regression model

$$y_{i*} = \beta_0 + \sum_{j=1}^k \beta_j X_{ij} + u_i \quad (1)$$

where y_{i*} is not observed. However what is observable is a dummy variable y_i defined by

$$\begin{aligned} y_i &= 1 \text{ if } y_{i*} > 0 \\ &= 0 \text{ otherwise} \end{aligned} \quad (2)$$

From equation (1), multiplying y_{i*} by any positive integer does not change y_i . If y_i is observable, then the β 's can only be estimated up to a possible multiple, and thus it can be assumed that the variance of u_i is equal to one. The scale of y_{i*} is now fixed. The following equation can be derived from (1) and (2)

$$\begin{aligned} P_i &= \text{Prob}(y_i = 1) = \text{Prob}[u_i > (\beta_0 + \sum_{j=1}^k \beta_j X_{ij})] \\ &= 1 - F[-(\beta_0 + \sum_{j=1}^k \beta_j X_{ij})] \end{aligned}$$

where F is the cumulative distribution function of u .

If the distribution of u is symmetric, since $1 - F(-Z) = F(Z)$, then,

$$P_i = F(\beta_0 + \sum_{j=1}^k \beta_j X_{ij}) \quad (3)$$

The observed y_i are realizations of a binomial process with probabilities given by equation (3) and varying from different trials (depending on x_{ij}), then the following likelihood function can be written

$$L = \prod_{y_i=1} P_i \prod_{y_i=0} (1 - P_i) \quad (4)$$

The functional form for equation (3) is

$$F(Z_i) = \int_{-\infty}^{Z_i \sigma} \frac{1}{\sqrt{2\pi}} \exp\left(-\frac{t^2}{2}\right) dt$$

Maximum likelihood functions as equation (4) for a probit model is estimated by non-linear estimation methods. In the case of this study, a probit model for survey data is used to estimate the regressions.

C. Data set and variables

This paper makes use of the third quarter quarterly survey of the SWS on various issues including presidential satisfaction. The poll includes 1,200 respondents nationwide, drawing 400 participants each from the National Capital Region (NCR), the rest of Luzon, Visayas, and Mindanao. The municipalities are the primary sampling units for NCR and the provinces for the rest of the regions.

The dependent variable is a qualitative response (either satisfied or dissatisfied) given by individuals who evaluated the president's performance in the said period. This takes a value of one if the respondent gives a rating of very satisfied (very dissatisfied) and zero if the respondent gives a rating of somewhat satisfied, neutral, somewhat dissatisfied, or dissatisfied (satisfied, somewhat satisfied, neutral, or somewhat dissatisfied). Those who refused to answer or gave an answer of "do not know" were dropped from the sample, slightly reducing the observations to 1,197.

There are several independent variables included in the regression. The respondents' demographic characteristics such as place of residence by region, type of location (either urban or not), age, sex, marital status, socioeconomic class, and educational attainment. The model estimates if people in Luzon, Visayas, and Mindanao as compared to those in the NCR tend to be very satisfied (very dissatisfied) with the president. The estimates examine the likelihood of residents of urban areas giving extreme ratings against residents of rural areas. It checks if married individuals compared to unmarried ones are more likely to say that they are very satisfied (very dissatisfied) with the president, and if the same is true for male respondents as compared to female respondents. The regression examines if compared to the poorest class, people in higher income classes tend to give a very satisfied (very dissatisfied) rating. In the same light, it sees if individuals with higher educational attainment as against those who only had elementary education or less, more likely to rate the president very satisfied (very dissatisfied).

The model also controls for previous experiences and expectations of respondents. It investigates whether changes in income has a significant effect in the people's responses. Do individuals whose incomes decreased or remained the same during the time the survey was conducted from around the same time last year more likely to be very satisfied (very dissatisfied) with the president? Are those respondents who said they expect economy conditions to worsen or remain the same in the next twelve months more likely give a rating of very satisfied (very dissatisfied) as against those who expect the economy to improve? These variables are included to check if the public's responses are affected by previous welfare enhancing or reducing experiences

and economic expectations. Table 3.1 gives details on how the different variables are measured, while table 3.2 presents the descriptive statistics.

Table 1. Description of Variables

Variable Name	Description
VS (VD)	This variable takes a value of one if the respondent gives a rating of very satisfied (very dissatisfied), zero otherwise.
<i>Demographic Characteristics</i>	
Luzon	This variable takes the value of one if respondent lives in Luzon and zero otherwise.
Visayas	This variable takes the value of one if respondent lives in Visayas and zero otherwise.
Mindanao	This variable takes the value of one if respondent lives in Mindanao and zero otherwise.
Urban	This variable takes the value of one if respondent lives in an urban area and zero otherwise.
Age	This variable is the respondent' age.
Male	This variable takes the value of one if respondent is male and zero otherwise.
Married	This variable takes the value of one if respondent is married and zero otherwise.
Class AB	This variable takes the value o one if the respondent is from class AB and zero otherwise.
Class C	This variable takes the value o one if the respondent is from class C and zero otherwise.
Class D	This variable takes the value o one if the respondent is from class D and zero otherwise.
HS	This variable takes a value of one if respondent finished high school only and zero otherwise.
Some College	This variable takes a value of one if respondent had some college education and zero otherwise.
College	This variable takes a value of one if respondent had has a college degree and zero otherwise.
<i>Changes in Income</i>	
Lower Income	This variable takes a value of one if the respondents says their household income is higher when the survey was taken compared to around the same time last year and zero otherwise.
Same Income	This variable takes a value of one if the respondents says that their household income is the same when the survey was taken compared to around the same time last year and zero otherwise.
<i>Indicators for Economic Expectations</i>	
Worse Economy	This variable takes a value of one if the respondent says he/she expects the economy to worsen in the next twelve months and zero otherwise.
Same Economy	This variable takes a value of one if the respondent says he/she expects the economy to remain the same in the next twelve months and zero otherwise.
<i>Interaction Terms</i>	
Luzon_Urban	This variable takes a value of one if the respondent lives in an urban area in the Luzon region and zero otherwise.
Visayas_Urban	This variable takes a value of one if the respondent lives in an urban area in the Visayas region and zero otherwise.
Mindanao_Urban	This variable takes a value of one if the respondent lives in an urban area in the Mindanao region and zero otherwise.

Table 2. Descriptive Statistics				
Variable	No of Observations	Mean	Min	Max
very satisfied	1197	0.100875	0	1
very dissatisfied	1197	0.1079798	0	1
Luzon	1197	0.4233483	0	1
Visayas	1197	0.1994782	0	1
Mindanao	1197	0.2278071	0	1
urban	1197	0.5085285	0	1
Luzon_urban	1197	0.1834509	0	1
Visayas_urban	1197	0.1527776	0	1
Mindanao_urban	1197	0.229336	0	1
age	1197	46.85278	18	90
male	1197	0.5003336	0	1
married	1197	0.7992975	0	1
class ab	1197	0.0206638	0	1
class c	1197	0.0677102	0	1
class d	1197	0.6761857	0	1
high school	1197	0.3635777	0	1
some college	1197	0.0888486	0	1
college	1197	0.1237285	0	1
lower income	1197	0.5972372	0	1
same income	1197	0.3215646	0	1
worse economy	1197	0.4151118	0	1
same economy	1197	0.3128423	0	1

D. Estimation technique

There are two sets of equations: one set has the variable very satisfied as the dependent variable, and another set has the variable very dissatisfied as the dependent variable. There are three models for each set of equations. The first model includes the demographic characteristics and the indicators for income changes. The second model contains the demographic characteristics, indicators for income changes, and economic expectations. The third model's right hand side variable consists of the demographic characteristics, indicators for income changes, economic expectations, and the interaction terms. There are three regressions per set all in all. This estimation technique is done in order to test for the robustness of the specifications. Ideally, there should be no changes in the signs of the coefficients and the significance of the variables across the different models.

4. Results

A. Results for very satisfied rating

The results of the regressions for the set of equations with very satisfied as the dependent variable turn out to be robust as seen in table 4.1. All three estimations yield almost the same outcomes in terms of the signs of the coefficients and the significance of the variables. In most cases, there were slight variations in the in the coefficients. Mindanao consistently comes out significant at the 1 percent level in all three models. Variables Visayas, age, and college are significant at the 5 percent level across all specifications. In addition, models two and three yield significant outcomes for the both indicators of economic expectations. The rest of the variables turn out to be insignificant.

Table 3. Results for Very Satisfied

Variable	<i>Model 1</i>			<i>Model 2</i>			<i>Model 3</i>		
	Coefficient	T-Stat	dF/dx	Coefficient	T-Stat	dF/dx	Coefficient	T-Stat	dF/dx
Contant	-1.5581	-4.30		-1.4040	-3.74		-1.5532	-4.33	
Luzon	-0.0032	-0.02	-0.0005	-0.0203	-0.11	-0.0030	0.2106	1.03	0.0319
Visayas	0.3498	2.06**	0.0613	0.3596	2.11**	0.0621	0.4783	1.97**	0.0861
Mindanao	0.7291	3.59*	0.1441	0.7465	3.71*	0.1461	0.8962	5.10*	0.1831
urban	-0.1684	-1.06	-0.0256	-0.1671	-1.05	-0.0249			
age	0.0114	2.56**	0.0017	0.0111	2.54**	0.0017	0.0111	2.55**	0.0016
male	-0.0369	-0.34	-0.0056	-0.0403	-0.36	-0.0060	0.0342	-0.31	-0.0051
married	0.1040	0.73	0.0151	0.1196	0.85	0.0169	0.1052	0.74	0.0149
class ab	0.4611	1.42	0.0931	0.4713	1.47	0.0942	0.4834	1.49	0.0967
class c	0.1772	0.80	0.0298	0.1791	0.80	0.0297	0.1999	0.87	0.0333
class d	-0.1871	-1.42	-0.0297	-0.1859	-1.41	-0.0290	0.1898	-1.43	-0.0294
high school	-0.1953	-1.49	-0.0286	-0.1969	-1.5	-0.0282	0.2011	-1.53	-0.0286
some college	-0.3371	-1.46	-0.0420	-0.3178	-1.34	-0.0392	0.3221	-1.37	-0.0393
college	-0.4171	-2.22**	-0.0507	-0.4387	2.33**	-0.0517	0.4491	-2.39**	-0.0521
lower income	-0.3712	-1.78	-0.0594	-0.3156	-1.51	-0.0492	0.3368	-1.61	-0.0523
same income	-0.3096	-1.41	-0.0436	-0.2635	-1.19	-0.0368	0.2789	-1.26	-0.0385
worse economy				-0.2837	-2.16**	-0.0409	0.2777	-2.12**	-0.0398
same economy				-0.3107	-2.17**	-0.0427	-0.3031	-2.12**	-0.0414
Luzon_urban							-0.3287	-1.22	-0.0419
Visayas_urban							-0.0890	-0.38	-0.0126
Mindanao_urban							0.0984	0.36	0.0155
Number of Observations	1197			1197			1197		
F-Statistic	5.05	(15, 1182)		4.6100	(17, 1180)		4.04	(19, 1178)	

Note: * indicates significance at the 1% level, ** indicates significance at the 5% level, and *** indicates significance at the 10% level

The results of the first model show that respondents in Visayas and Mindanao are more likely to be very satisfied with the president than those from NCR. People in the Visayas are more likely to give a very satisfied response by 6.1 percent and those in Mindanao by 14.4 percent as against respondents in NCR. Age is significant and has a positive coefficient, and in fact the probability of being very satisfied with presidential performance increases by 0.17 percent as age increases. Attaining a college degree contributes negatively to the likelihood of giving a very satisfied rating as indicated by its negative coefficient. A respondent with a tertiary degree is 5.0 percent less likely to say that he or she is very satisfied in the way the president does her job compared to someone with only elementary education or even less.

The second model controls for the economic expectations of the respondents in addition to demographic characteristics. The same variables turn out to be significant with very negligible changes in their marginal effects. Both indicators for economic expectations are significant and have negative coefficients. Individuals who expect the economy to worsen in the next twelve months are less likely to rate the president as very satisfied by 4.0 percent as against those who said that they expect the economy to improve. Expecting the economy to stay the same diminishes the probability of being very satisfied with the president by 4.3 percent.

The outcomes of the third model where interaction terms for the region and urban variables are included are almost the same as compared to the two models. The same variables come out as significant, but the interaction terms prove not to have any explanatory powers over the dependent variable. However, after controlling for the interaction terms, the marginal effects of Visayas and Mindanao increase considerably compared to the first and second estimations. Respondents in Visayas are more likely to say they are very satisfied by 8.6 percent and respondents in Mindanao by 18.3 percent as against those in NCR. The marginal effects of the rest of the significant variables do not register considerable changes.

The results obtained from the three models reveal that region, age, college degree, and economic expectations have robust explanatory powers over the likelihood of giving the president a very satisfied rating. There are differences in the way individuals in Visayas and Mindanao evaluate presidential performance as compared to those in NCR. However, within the regions, living in an urban area does not contribute in any way to being very satisfied with the president as compared to living in a rural area. It appears that the regions largely drive the responses since urban and the interaction terms between regions and urban are not significant.

Several characteristics appear not to have any significance over eliciting a very satisfied response. Being male does not affect a respondent's likelihood to be highly satisfied, and so it seems gender bias does not play a role in presidential ratings. The variables for socioeconomic class are all insignificant, implying that Arroyo does not have a following based on class. The results would have probably been different if the ratings of Joseph Estrada, who is widely believed to be a class phenomenon, were analyzed. A person with a college degree is less likely to be very satisfied with the

president's performance. After investing in human capital accumulation, educated people probably want to make sure that good opportunities are available to them and thus, expect more from the administration. These opportunities are highly dependent on the economy's performance, which in turn is greatly affected by the president's actions and decisions.

Changes in income within the previous year do not matter when giving a very satisfied rating. However, expectations of how the economy will be in the next twelve months matter. This outcome could mean several things. Filipinos probably do not consider changes that transpired in the last twelve months in their current evaluation of presidential performance. Quarterly rating might be highly dependent on recent economic developments. It could also be that respondents do not reward or punish the president on past events since there's nothing she can do about them anymore, but expectations determine satisfaction since the president still has control of future economic performance up to some extent. Individuals are less likely to give a response of very satisfied if they think the president is not implementing the right policies to improve the economy.

Generally, individual level characteristics such as age, education, and expectations ascertain the likelihood of being very satisfied with the president. The regions are the only group variable that drive satisfaction. The public's satisfaction on Arroyo is highly determined at the personal level and is not determined by collective factors such as gender or socioeconomic class.

B. Results for very dissatisfied rating

The outcomes of the estimations for the set with very dissatisfied as dependent variable are relatively robust as seen in table 4.2. Variables for Luzon, some college education, and pessimistic expectations of economic performance strongly explain extreme dissatisfaction in the president. Both Luzon and some college education are consistently significant at the 5 percent level across all specifications. Pessimistic economic expectations come out as significant in equations two and three. College education is significant in the first model at the 5 percent level, but this dropped to the 10 percent level in the second and third models. Secondary education is weakly significant at the 10 percent level in the first two specifications. The variations in the coefficients of the variables are minimal and their signs remain unchanged across all estimations.

The first model reveals that respondents in Luzon are 8.0 percent less likely to give a very dissatisfied answer as compared to respondents in the NCR. Those who had some college education tend to say that they are very dissatisfied as indicated by its positive coefficient as compared to those who only had elementary education or less. In fact, an individual reaching college level is 9.4 percent more likely to rate the president as dissatisfied. Individuals with a college degree tend to give a very dissatisfied rating by 7.6 percent as against individuals who only have elementary education or even less.

Table 4. Results for Very Dissatisfied

Variable	Model 1			Model 2			Model 3		
	Coefficient	T-Stat	dF/dx	Coefficient	T-Stat	dF/dx	Coefficient	T-Stat	dF/dx
Contant	-1.2507	-3.86		-1.3439	-4.05		-1.3406	-4.28	
Luzon	-0.4848	-2.88**	-0.0802	-0.4613	-2.71**	-0.0752	-0.3948	-2.03**	-0.0645
Visayas	-0.1821	-1.27	-0.0292	-0.1947	-1.34	-0.0306	-0.3046	-1.2	-0.0457
Mindanao	-0.0214	-0.11	-0.0037	-0.0422	-0.22	-0.0070	-0.0639	-0.4	-0.0106
urban	-0.0006	0	-0.0001	-0.0008	-0.01	-0.0001			
age	-0.0049	-1.34	-0.0008	-0.0046	-1.27	-0.0008	-0.0045	-1.24	-0.0008
male	0.1150	1.08	0.0198	0.0900	0.85	0.0153	0.0935	0.88	0.0158
married	-0.1725	-1.34	-0.0318	-0.1801	-1.41	-0.0328	-0.1900	-1.48	-0.0346
class ab	-0.2787	-0.58	-0.0402	-0.1919	-0.4	-0.0288	-0.1945	-0.41	-0.0291
class c	-0.0383	-0.19	-0.0065	-0.0550	-0.27	-0.0090	-0.0398	-0.19	-0.0066
class d	0.1217	0.95	0.0204	0.1102	0.86	0.0182	0.1131	0.89	0.0187
high school	0.2253	1.76***	0.0405	0.2176	1.68***	0.0384	0.2084	1.62	0.0366
some college	0.4381	2.43**	0.0940	0.4030	2.25**	0.0839	0.4043	2.25**	0.0841
college	0.3743	1.92**	0.0768	0.3432	1.78***	0.0685	0.3358	1.74***	0.0667
lower income	0.3351	1.75	0.0556	0.2664	1.37	0.0438	0.2530	1.29	0.0415
same income	0.2199	1.09	0.0399	0.1992	0.97	0.0354	0.1898	0.91	0.0336
worse economy				0.3314	2.50**	0.0585	0.3381	2.55**	0.0596
same economy				0.0376	0.25	0.0064	0.0464	0.31	0.0079
Luzon_urban							-0.1431	-0.62	-0.0228
Visayas_urban							0.1421	0.57	0.0256
Mindanao_urban							0.2170	0.74	0.0419
Number of Observations	1197			1197			1197		
F-Statistic	2.80	(15, 1182)		2.73	(17, 118)		2.5	(19, 1178)	

Note: * indicates significance at the 1% level, ** indicates significance at the 5% level, and *** indicates significance at the 10% level

The estimation for the second model controls for the economic expectations of the respondents. The same variables turn out to be significant, although the variable for college education is only significant at the 10 percent level this time. There are very slight differences in the value of the coefficients and their marginal effects. The indicator for pessimistic economic expectations turns out to be significant at the 5 percent level. People who expect the economy to worsen in the next twelve months are more likely to say they are very dissatisfied with presidential performance by 5.9 percent as against those who expect the economy to improve. Compared to anticipating better economic conditions, it appears that anticipating no changes does not contribute to the probability of giving a very dissatisfied response.

The results of the third model, which include interaction terms for the region and urban variables, yield minor differences in the values of the coefficients and their marginal effects. The same variables are still significant except for high school. The interaction terms do not come out as significant. The marginal effect of Luzon declines to 6.5 percent when the interaction terms are controlled for in the third model as compared to 8.0 percent and 7.5 percent in the first and second specifications.

In general, place of residence, education, and pessimistic expectations of the economy determine the likelihood of being very dissatisfied with the president. Respondents in Luzon are less likely to give a dissatisfied rating as compared to those in the NCR. However, within Luzon, living in an urban or rural area does not contribute to

extreme dissatisfaction in presidential performance. Once again, this type of response is largely driven by regional differences.

Certain characteristics such as age, marital status, and gender appear not to have any explanatory powers over giving a very dissatisfied response. Compared to female respondents, male respondents are not likely to be more or less dissatisfied with the president. Again, gender bias does not explain this type of rating. Being married does not influence giving a very dissatisfied rating. Age also has no significant relationship to extreme dissatisfaction in the president, unlike in the case of a very satisfied response where age has a positive contribution.

Socioeconomic class does not influence being very dissatisfied with the president. This means that being rich or poor does not determine high dissatisfaction in the president's performance. Again, this shows that Arroyo's ratings are not based on class factors. The education variables explain a very dissatisfied rating although with varying levels of significance across the models. The indicator for some college education is a robust variable, turning out to be consistently significant in all three estimations. This implies that respondents who reached the tertiary level are more likely to be very dissatisfied with the way the president does her job as against those respondents with only elementary education or less. This reinforces the finding that those individuals who invested more in human capital tend to be more critical of the president. They are aware that their opportunities depend on the economy, which in turn, is affected by the president's performance.

Changes in income do not determine a very dissatisfied rating. This implies that people do not consider income changes that occur in the past year in their present evaluation of the president's performance. It could also be the case that changes in income are not associated with the way the president performs her job. Respondents may also find it useless to take into consideration previous income changes when rating the president since nothing can be done about it anymore. However, future economic performance matters to respondents since this is highly dependent on the president's actions. A bleak picture of the economy in the next twelve months contributes positively to a very dissatisfied response. Expecting the same economic conditions though do not affect extreme dissatisfaction in any way.

Generally, personal characteristics such as educational attainment and economic expectations determine a very dissatisfied rating. The only group variable that matters is the variable for Luzon. A respondent's age, gender, marital status, or socioeconomic class do not significantly affect a very dissatisfied response. Thus, giving a very dissatisfied rating rests largely on individual and not group factors.

5. Conclusions

The findings of this paper reveal that regions, educational attainment, and economic expectations largely drive strong opinions on the performance of the president.

Respondents in Luzon, Visayas, and Mindanao tend to be less critical of the president as against those in the NCR. Individuals living in Visayas and Mindanao are more likely to give a very satisfied rating, while those living in Luzon are less likely to give a very dissatisfied rating. In the case of giving a very satisfied response, age contributes positively to its likelihood. Highly educated individuals as compared to those who only have elementary education or less tend to be stricter when evaluating the president. As the results show, respondents with college degrees are less likely to give a response of very satisfied, while respondents with some college education are more likely to give a response of very dissatisfied. Finally, expectations of future economic conditions strongly explain extreme satisfaction and dissatisfaction on the president. Expecting the economy to worsen or stay the same in the next twelve months lessens the likelihood of being very satisfied with presidential performance. Although expecting economic conditions to remain the same do not affect the probability of giving a very dissatisfied rating, expecting negative changes increases the likelihood of doing so.

These results pave the way for understanding how Filipinos rate their president. In the case of Arroyo, it appears that extreme ratings are formed largely at the individual level, and collective characteristics do not matter except for regional groupings. This paper reveals that strong opinions on the performance of the president are from highly educated respondents with less optimistic expectations of future economic conditions. These characteristics together with region of origin determine very satisfied and very dissatisfied responses.

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