

Is Economic Crisis Reducing Support for Markets and Democracy in Latin America? Some Evidence from the Economics of Happiness

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Abstract

The severe economic crisis facing several countries in the region has led many observers to predict a backlash against market policies and even against democracy in the region. An economic crisis of such proportions should also, in theory, have negative effects on subjective well being. Our analysis, based on the 2002 Latinobarometro survey, yields only some of the expected results. We find that subjective well being has decreased, but only marginally. Satisfaction with market policies and with the way democracy is working has decreased among all groups except the very wealthy. In contrast, support for democracy as a system of government has increased, suggesting that respondents are increasingly distinguishing between democracy as system of government, and the manner in which particular governments are performing. We also find evidence of increased support for redistributive taxation among the wealthy.

JEL Codes: D63 (welfare economics - equity, justice, inequality); D84 (information and uncertainty, expectations); I31 (general welfare; basic needs; quality of life); J62 (mobility, unemployment, intergenerational mobility)

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Introduction

Long gone is the mid-nineties optimism about Latin America's turn to the market and establishment of democratic government. Instead the 21st century has opened with news accounts of one crisis after another, beginning with Argentina's economic collapse in 2001, and now followed by threats of defaults in Uruguay and Brazil, by fears of a populist backlash in a much broader set of countries, and by weak growth performance even in the strongest economies: Chile, Latin America's tiger, is slated to grow at only 2.5% in 2003 and unemployment – at 9.5% - is higher than it has been in two decades.¹

Nor have the region's age-old problems gone away, and its weak public institutions are ill equipped to solve them. It has the highest inequality in the world, relatively weak social indicators, and high rates of poverty, violence, crime, and corruption. Progress has been made in some countries in the past decade in improving some of these problems. In others they have gotten worse and, most recently, are being exacerbated by the current crisis. During financial market crises, for example, wealthy consumers who hold assets abroad are much more protected than those at low and middle income levels, as the latter have no alternatives to fragile domestic banking systems. It is common knowledge that when such crises result in poor macroeconomic performance and in particular high inflation, the poor are least able to protect themselves.

What are the effects of all this on a region already suffering from reform fatigue and a number of pressing social and economic problems? Will declining public support for market policies translate into support for populists or other radical alternatives? The fairly novel literature on the economics of happiness suggests that macroeconomic performance has direct effects on individual well being.² It also suggests that there may be a virtuous circle, linking higher levels of well being with greater support for market policies and democracy.³ In this

article we explore the effects of severe macroeconomic crisis on individual well being and on public support for market policies and for democracy.

In this paper we attempt to shed light on some of these questions, based on an analysis of data from the Latinobarometro survey for the years 2000-2002. The Latinobarometro is a region-wide public opinion survey, carried out in 17 countries in Latin America, with approximately 1000 respondents in each country. The samples are nationally representative with the exception of Brazil and Paraguay.⁴ While recognizing the limitations of survey data, which include the effects of exogenous national events on individual responses and attitudes at the time of survey, and also accepting the limits that come from working with cross-section rather than panel data, we feel that these data provide a useful insight into the effects of the recent crises in the region on individual well being and on public attitudes about markets and democracy.⁵ While we do not have panel data, we do examine trends both across time at the region-wide level (controlling for country-specific traits via country dummies), and between crisis and non-crisis countries for the year 2002. The survey questions used and summary data for the variables are available in Appendix A and Table 1 respectively.

There is a rich literature on democratisation and economic reform in Latin America, as well as some excellent recent work on public opinion trends in countries undertaking economic reforms.⁶ While there is much in those literatures that can deepen our understanding of recent trends, in this paper we attempt to contribute to the already rich body of analysis of the relationship between democracy and development through the fairly novel framework provided by the nascent literature on the economics of happiness.

The Economics of Happiness and the Crisis in Latin America

We focus on individual well being – and the economics of happiness – for several reasons. First, individuals' perceived well being can have important effects on their decisions about consumption versus savings and investments, on their political attitudes and behavior, and on their behavior in the labor market.⁷ Secondly, the economics of happiness highlights a number of non-income determinants of well being – such as security, relative income differences, and health – that are very relevant to the Latin American context. Despite significant progress on macroeconomic reform in the region, high levels of insecurity and inequality remain prevalent, as does inadequate and uneven provision of social services.

The work on the economics of happiness contributes to a more general effort in the economics profession to develop, analyse, and utilise measures of well being which are broader than simple income criteria. While income measures are of critical importance, incorporating non-income criteria often result in remarkably different assessments of welfare, and therefore very different policy implications.⁸ Since the early work of Richard Easterlin, research on the economics of happiness has highlighted a paradox that challenges standard economic assumptions: as countries grow wealthier over time, overall reported happiness levels do not increase.⁹ Within countries, while wealthier individuals are happier than poor ones, once basic needs are met, more income does not necessarily result in increased happiness.¹⁰

Most studies of well being highlight the importance of non-income determinants of well being, such as health, marital status, and job security and satisfaction, as well as the importance of relative income differences. A number of authors have also found that economic insecurity – such as precarious employment situations and high inflation – have marked negative effects on happiness.¹¹ The developing and transition economies – at least those for which we have data

and where per capita income levels are beyond the point of destitution – demonstrate very similar characteristics in terms of the determinants of subjective well being. Graham and Pettinato find that the determinants of happiness in Latin America closely resemble those in the United States and Europe. They also find that happier individuals in both Latin America and Russia are more supportive of markets and democracy than the average.¹²

Given the effects of insecurity on happiness, as well as the correlation between happiness and attitudes about markets and democracy, it seems reasonable to assume that the severe economic crisis could have negative effects on happiness in Latin America, which could in turn influence both attitudes and economic and political behavior. We turn to these questions in the remainder of this paper.

Effects of the Crisis on Subjective Well-Being

While ‘crisis’ is a difficult term to define, we think that it is accurate to describe Latin America’s situation in 2002 as an economic crisis, given that most countries in the region experienced negative growth in the year 2002, and in many cases the drop was severe. For some countries, there were hints of a coming downturn as early as the year 2000. [Table 2] We define those countries that reported negative growth in GDP per capita in 2002 (based on ECLAC data) as crisis countries.¹³ Given the literature cited above on macroeconomic conditions and happiness, it is plausible to assume that adverse economic conditions have had negative impacts on personal well being in the crisis countries.

While we find some evidence of decreased levels of well being in the region according to some measures, such as reported happiness, other proxies for well being, such as individuals’ expectations for the future, suggest a persistence of optimism, at least in some countries. These

mixed findings may be a result of the difficulty of comparing happiness levels across samples and years, which is rife with methodological problems.¹⁴ Yet another part of the story may be people's ability to adapt to crisis, as well as to distinguish between short-term economic downturns and the longer term outlook. We explore both of those issues in turn.

Mean happiness levels in crisis countries have gone down in 2002 as compared to 2001, whereas those in non-crisis countries have increased slightly.¹⁵ What is more striking, though, are the sharp changes in some of the crisis countries, which no doubt drive the aggregate results. In Argentina, there was a 9.7 point drop in the percent of respondents that answered above neutral happiness. In several Central American countries, the drops were even higher. In contrast, happiness levels increased in Brazil.¹⁶

Caution is clearly necessary with any sort of assessment of subjective well being – much less comparisons across samples – as there is no way to avoid at least some measurement error when working with survey data based on subjective assessments. This is in part reflected by the generally low R-squares that econometric analysis of this data yields.¹⁷ That said, the high degree of consistency in the patterns that researchers find when exploring the determinants of subjective well being across large samples and time provides validation for the results at the aggregate if not at the level of the individual.¹⁸

We adapted the standard ordered logit model of happiness – with happiness as the dependent variable and with the usual socioeconomic and individual characteristics as controls - to examine the effects of crisis on happiness. In order to compare the results between crisis and non-crisis countries in general, we created a dummy variable with a value of 1 for countries whose GDP per capita was negative in the year 2002. [Table 3] Although it appears as though being in a crisis country is positively linked to happiness, this effect was present in 2000 and

2001 as well, suggesting that factors exogenous to this model mean that those countries as a group have a significantly higher level of happiness. Interestingly, the magnitude of the crisis dummy has reduced over the years, suggesting that the gap in the level of happiness between crisis and non-crisis countries is reducing, and that the crisis is having a small adverse impact on personal well-being in those countries.¹⁹

In most countries and regions for which we have happiness data, there is a quadratic relationship between age and happiness – a U-shaped curve with the low point on the happiness curve being in the middle age years. In Latin America in 2002, we find a remarkable departure from our very consistent findings in the years 1998, 2000, and 2001: a major increase in the low point on the standard U-shaped age and happiness curve. In the United States and Europe, this point tends to be in the early forties for the average respondent. For Latin America, for the years 2000 and 2001, the low point on the curve was 50.8 and 46.8 years, respectively (an average of 48.8 years). In Russia, for 1996 and 2000, the low point was 50.4 and 49.4 years of age, respectively (an average of 49.9 years).²⁰ In 2002 in Latin America, the turning point on the age curve was 61.5 years, a difference of over 10 years. This implies that there is a prolonging of the point in the life cycle at which the average respondent reaches his/her lowest level of happiness prior to its increasing.

As always, it is possible that at least some of this change is error driven.²¹ Accepting some margin for error, people are reporting happiness at an older age in 2002 in Latin America than they did in previous years, and also at an older age than the average for Russia, which is already an outlier by international standards. This may, among other things, reflect the increased uncertainty faced by those on fixed or limited incomes such as pensioners.

We also find some other differences between 2002 and earlier years, although they are less stark than our age findings. While in previous years, men were happier than women in the region (which is the reverse of the United States, for example, where women are happier than men), for the year 2002 there was no difference between the genders. In the past, we interpreted the difference as possibly reflecting unequal gender rights. This obviously cannot have changed in just one year. It is possible that the crisis and the related insecurity have disproportionate effects on the perceived well being of men. Another notable difference is that retirees were less happy than other respondents in the year 2002, while in the past they were no significant differences. This may reflect the increasing insecurity about economic conditions in the region that markedly affects retirees, particularly those with individual accounts whose returns fluctuate with returns on investments both at home and abroad.

These declines in happiness may well be temporary, and there is substantial evidence that most individuals eventually adapt to what psychologists call homeostasis, or a ‘normal’ (for each individual) level of happiness, even after major negative life changing events, such as spinal cord injuries.²² Yet there far less evidence to guide us on how and how quickly individuals’ subjective well being recovers to ‘normal’ levels in the event of major national crises.²³ Most available evidence suggests that less happiness is bad for individual economic performance, as well as for support for the market and for satisfaction with democracy. Earlier research in the region by Graham and Pettinato, for example, finds that happier people are, on average, more supportive of both markets and democracy. While it is difficult to establish the direction of causality, to the extent that there is a virtuous circle, it is likely to be diminished by less happiness.

Prospects of Upward Mobility

A proxy for gauging the effects of happiness on individual behavior is to examine the effects on people's economic expectations for the future, both for themselves and for their children. Earlier research by Graham and Pettinato in the region shows that happier people also have higher expectations for their own and their children's future. Work by a number of authors suggests that individuals' expectations about future mobility (prospects of upward mobility or POUM) have significant implications for their tolerance for inequality, for example, and their related views about taxation. The higher tolerance for inequality in the United States compared to Europe is often attributed to higher rates of social mobility (real or perceived) in the former.²⁴

When we compare region-wide responses to a question asking individuals if their economic situation will be better or worse twelve months hence in 2000, 2001, and 2002 (POUMshort) we do not find much of a difference. However, the crisis countries again seem to have been affected. The crisis dummy is negative in 2001 and 2002, whereas it was positive in 2000. (The earlier results may reflect the greater happiness/optimism that we find in the crisis countries in general, while the later results reflect the effects of the crisis and the narrowing of the gap in happiness levels between the crisis and non-crisis countries).

We also analyse responses to a question asking if respondents' children would live better than they did. Regionwide, people's aspirations for their children do not change all that much between 2001 and 2002, which is not surprising as these responses tend to reflect hope and determination as much as objective economic conditions (which may be viewed as transient) and the percent of respondents that think their children will do better than they is similar to that in the U.S.²⁵ However, the crisis countries seem to be affected, as both tabs and crisis dummy are negative in 2001 and 2002 as compared to 2000. Indeed, in 2002 for the first time wealth was not

positively linked to having higher prospects of upward mobility, a result which is driven by trends in the crisis countries. (We get an insignificant coefficient on wealth in the 2002 equation when we do not control for being in a crisis country. When we include the crisis dummy, the sign on the dummy is negative and significant, and the wealth coefficient becomes positive and significant).²⁶ [Table 4]

Comparing respondents' evaluations of their own future mobility with their evaluations of their country's prospects yields some interesting results. Respondents were always more enthusiastic about their own prospects rather than the country's, regardless of the year or whether they lived in a crisis country or not. Almost 40% evaluated their prospects better than they did their country's, with another 50% evaluating the two equally. We also found that while respondents' evaluation of their future country's situation mattered to their responses to POUMkids (and was positively and significantly correlated with these responses), it was less important than individual level traits, such as wealth and education, as well as individual's assessments of their own economic situations.

When we regress the responses to the question about children's future on variables gauging individuals' future economic situation, their current economic situation, their past situation, and the country's economic situation, we find that the individual level variables are positive and significant, while the country's situation is not. This suggests that individuals retain some hope for their children's future, regardless of the country's situation. [Table 4]

As our analysis is limited by its basis in cross section rather than panel data, we cannot offer a definitive hypothesis of what these trends might imply for the future economic and political behavior of our respondents. We can, however, extrapolate from other research. Our analysis of panel data from Russia suggests that lower expectations for the future have negative

effects on individual economic performance in future periods, while happier people perform better in the labor market.²⁷ Graham and Pettinato's work on Latin America in 2000 (and in Russia) suggests that the same traits result in more support for markets and for democracy.²⁸ Our own results on the later years' surveys support these findings, with higher prospects of upward mobility being correlated with preference for democracy and with satisfaction with market policies. [Table 4] Thus the decreases in happiness in the region may have some negative spillover effects, but we do not know at this point how significant they will be and how long they will last, particularly as people's innate optimism seems to remain intact despite the crisis. We can, however, explore the relationship of these trends to public support for market policies.

Can Market Policies Be Sustained?

Not surprisingly, there has been recent speculation about a potential backlash against market policies and reforms in Latin America. Evidence seems to be growing – protests against privatisation brought down the cabinets in Peru in July 2002 and Bolivia this month.

Demonstrations against water privatisation paralysed economic activity for days in Ecuador, Bolivia, and Argentina. Brazil, the region's largest economy, has elected Ignacio da Silva (Lula), a former union leader who has used anti-market rhetoric in the past.

Are Latin Americans really turning away from the market? That is certainly a plausible interpretation of the above events. Yet another is that the majority accept basic market principles but increasingly also want governments that can provide decent social services and social insurance. For example, all of the candidates in Brazil – including Lula - tempered their anti-market rhetoric as the election approached. While this was to calm jittery financial markets and

to ensure the sustainability of the \$30 billion IMF bailout, it is also perhaps recognition that being anti-market alone is not a particularly effective message.

To test which one of these interpretations is most accurate, we analysed responses to several questions about the market economy that were in the survey in 2000 and 2002. Specifically, we examined attitudes towards privatisation, satisfaction with the market economy (2002 only), support for the market economy, unemployment, taxation and income distribution, and regional economic integration. We relied on both simple tabulations and regression models to discern the traits that make individuals more or less likely to support distinct policies.

We first looked at privatisation, since it has come under increasing criticism since the turn of the millennium, and deservedly or not is being portrayed negatively in the media.²⁹ The simple story is a clear increase in dissatisfaction with privatisation regionwide. A significantly higher number of respondents disputed the assertion that privatisation had been beneficial for the country in 2002 than in 2000. Comparing crisis and non-crisis countries, we see an even starker picture – in 2000 there was barely any difference between the two groups, whereas in 2002 10% more respondents said they were dissatisfied with privatisation in crisis countries versus non-crisis countries.³⁰

When we examine the characteristics of those who are satisfied with privatisation, we again find some major differences. Whereas in 2000 and 2001 educated respondents were more likely to think privatisation was beneficial to their country, in 2002 satisfaction with privatisation declines with increased education. The relation with wealth has changed as well – while in earlier years satisfaction with privatisation increased linearly with wealth, in 2002 we find a quadratic relationship (when we square the wealth index). Support bottoms out in the lower

middle class - one standard deviation below the mean of the wealth variable – and then increases at higher levels of wealth.³¹

We found similar results pertaining to the middle class in examining a subjective question on whether respondents were satisfied with the way the market economy was working in their country. We find a similar quadratic relationship with wealth, with satisfaction with market policies only at the top of the distribution. Simply put, only the very wealthy are satisfied with how the market is working.³² Educated people are also less likely to be satisfied with how the market is working.

If one accepts that the political support and economic participation of the middle classes is critical to the continuation of market reforms, these findings are worrisome. They are not, however, surprising. Previous work by Birdsall, Graham, and Pettinato (2001) and by Behrman, Birdsall, and Szekely (2001) has noted the mixed effects of market policies on those in the middle of the income distribution.³³ While those at the top of the distribution tend to benefit from the liberalisation of trade and capital flows, and those at the bottom experience positive benefits from the stabilisation of high levels of inflation, those in the middle face much more mixed rewards. Those with higher levels of education (university or higher technical), and private rather than public sector jobs, tend to fare better.³⁴

Prior to the turn to the market, a secondary education was sufficient to guarantee a stable and relatively ‘privileged’ middle class lifestyle – often with a job in the public sector. With the turn to the market, public sector jobs were fewer in number and less desirable. Rewards are now going to workers with higher skills, who are also in short supply, which in turn drives up their marginal returns. Behrman et al find that the ratio of returns to secondary versus primary education has actually fallen in Latin America over the last few years. Not surprisingly, our

results show that public sector workers are, on average, less likely to support market policies than are other respondents. And those respondents with completed secondary school but without higher degrees are disproportionately represented among the unemployed.

While *satisfaction* with privatisation and with the market's performance has decreased, especially amongst the middle class, there is still broad-based support for the market economy in general. There was no change during the period in the responses to a question that asked whether the market economy is best for the country. In both 2000 and 2001, support for the market was strongly and significantly linked to wealth, virtually regardless of the regression specifications (in other words regardless of what other variables we controlled for). However, in 2002 there is no link with wealth, suggesting that support – which as was noted has not dropped – is now spread over the income ladder. We also find that age is negatively correlated with support for market policies (without a quadratic effect), while those that place themselves on the right of the political scale are more supportive. [Table 5]

The inclusion of our crisis dummy in our equations provides further support for these results. Being in a crisis country in 2002 did not significantly affect support for the market, yet those in crisis countries were much more likely to be dissatisfied with how the market worked. In addition, in 2000 and 2001 those in crisis countries were less supportive of market policies, while as stated above there is no significant difference in 2002.

We posit that the negative skew that we find on the perceptions of those in the middle is driven – at least in part – by insecurity and by concerns about relative income differences (the gap between themselves and the very wealthy).³⁵ These factors could be driving the gap between respondents' support for market policies, and their satisfaction with how the market is working

more generally. Our analysis of unemployment related questions corroborates the insecurity hypothesis.

Unemployment is viewed to be the most important problem facing the region in 2002 by a large margin, in contrast to 2000 when education problems were perceived as important as unemployment. This is not surprising, given the economic situation and the weak state of social insurance mechanisms in much of the region.³⁶ In fact, the crisis highlights respondents' preoccupation with economic variables – significantly more people viewed unemployment, low salaries, and poverty as the most important problem, and concern for education and health dropped markedly. Further, more people viewed corruption to be the most important problem in 2002 than in 2000, suggesting that even though worries about the economy had increased, corruption was still of paramount concern.

Using a logit regression of a dummy variable for those who perceived unemployment as the most important problem, we find a U-shaped relationship with age (low point of 43 years) and negative relationship with wealth, as expected. However, the coefficient on education is insignificant, which supports our earlier assertion that those with a secondary education and public sector jobs are increasingly vulnerable to economic hardship. We find that those who thought unemployment was the most important problem were less likely to be satisfied with the way the market works than others, yet they were just as likely to think that the market economy was the best for their country.

Another unemployment question reveals a similar story. In the year 2000, 46% of respondents opted for the most extreme response – very concerned - to a question about how worried they were about losing their job. In the year 2002 58% did. And while 13% of respondents were not at all concerned about fear of unemployment in 2000, in 2002 only 9%

were not at all concerned. When we regress the fear of unemployment variable on a number of control variables, we again find a U-shaped age relationship, with younger people more concerned about losing their jobs, and the low point of the age curve being 40 years of age. Those who were most worried about losing their jobs were now less likely to be satisfied with the market and to support the market economy in general. Concerns about employment insecurity seem to turn respondents' dissatisfaction with the way the market is functioning into opposition to the market economy itself

Views on Taxation and Income Distribution

We also find evidence of insecurity in our analysis of a question that asks if lower taxes are preferable even if welfare and other state services suffer. A high score on this variable (LOWTAX – see appendix) means that respondents are willing to give up state services for lower taxes. When we regress a number of control variables on our low tax variable, we find that wealth is negatively correlated with favoring lower taxes, as are years of education. When we square the wealth index, to see if there is a turning up at the very top of the distribution, we still get a negative coefficient. While the very wealthiest people in the region are not included in the survey, nor does our wealth index adequately capture the assets of the very wealthy, we still find these results surprising. That these results are not spurious is confirmed by other findings - being a private employee is positively correlated with favoring low taxes, as is placing oneself to the right on the political scale. While it would be difficult to believe that the wealthy have suddenly turned altruistic, it is more likely that economic and financial insecurity is beginning to hurt even the very wealthy, to the point where social services and insurance become important to them.³⁷

Related to taxation, we examined a variable gauging the fairness of the income distribution. In the past, those respondents that favored redistribution and/or thought that the income distribution in their country was unfair were less wealthy, on average, than those that did not.³⁸ The distribution variable asks respondents if they think that the distribution of income in their society is fair (EQUIDIST – see appendix). Not surprisingly for Latin America, only 13% of the sample thinks that the distribution of income is fair or very fair, and those in our crisis set of countries were less likely to think that the distribution was fair, in both 2001 and 2002.³⁹

When we regress this variable on a number of independent variables, the most notable finding is that our income variable – a wealth index – is insignificant, which is remarkably different from trends in the past. When we square our wealth variable, to see if there is a quadratic, we still fail to see a correlation. This suggests that there is now broad-based acceptance of what objective measures have always exhibited – that the income distribution in Latin America is highly skewed. Whether this translates into support for redistribution is of course another matter – we find that those who believe taxes should be lower regardless of the trade-off are more likely to think that the distribution of income is fair, as are those with higher expectations for their children’s future, and those who trust others. Older people are also more likely to respond that the distribution of income is fair, and a U-shaped age relationship is seen, with the turning point being age 54. Years of education, meanwhile, are negatively correlated with believing that the distribution is fair.

We also tried to capture attitudes about free trade. In the absence of a straightforward question about free trade, we relied on a question about support for regional economic integration as a proxy. In contrast to our distribution variable, we get a more standard result: wealthier, more educated people favor free trade (e.g. regional economic integration).

This contradicts the standard story in much of the literature. This is one of skilled workers in the developed economies favoring free trade while unskilled ones oppose it. In contrast, in the developing economies, skilled rather than unskilled workers are assumed to oppose free trade, presumably because skilled workers work in protected industries, while unskilled labor, which is the resource that is most abundant and stands to gain from trade, will be in favor.⁴⁰ Yet these assumptions are based on a very small set of developing economies that have not yet liberalised their trade regimes. In Latin America, which has opened up substantially, it is fairly evident that skilled rather than unskilled workers have benefited most from the opening to free trade and the liberalisation of capital flows; thus wealthier and more educated respondents favor free trade. Of course the story is muddied by the phrasing of the question, which is about trade integration among countries at similar levels of development, but it is unlikely that the average respondent is considering these nuances.

Rather surprisingly, unemployed respondents in Latin America are more likely to favor free trade – or trade integration - than are others, presumably as they think it will increase employment opportunities. This is probably not a view that would be shared by unemployed respondents in the advanced industrial economies. Those respondents that scored higher on our pro-market question were more likely to favor free trade, as were those that favored lower taxes, and those that used the internet. (For the first time, this year's survey has information on access to and usage of the Internet). Those that thought the distribution of income was fair were less likely to favor free trade. Political scale, meanwhile, had very strong effects, with those who place themselves on the right of the spectrum more likely to favor free trade. Indeed, when we include the political scale variable in the regressions, all of the other variables that gauge perceptions about distribution are rendered insignificant.

Increased Support for Democracy

These trends have potential implications for governance and support for democracy in a region where democratic institutions are fairly new and fragile. A surprising and positive trend – particularly given the severity of the economic crisis – is that the percentage of Latin Americans that favor democracy over any other system of government, which fell from 2000 to 2001, increased in 2002 and recovered to its 2000 levels, despite deteriorating economic conditions. The percent of those that would accept an authoritarian government ‘under certain circumstances’ has decreased.

Trends vary by country. Most remarkable given the extent of the crisis in Argentina, is that more Argentines prefer democracy to any other system of government this year than last, which is a very significant vote of confidence for democracy, under the most difficult economic circumstances imaginable. The same pattern is seen in the crisis countries as a group. While those living in crisis countries preferred democracy less than the average in 2000, in 2001 and 2002 they actually preferred democracy more. [See Table 6] Still, there are also worrisome and negative trends in some countries, such as Brazil and Colombia.⁴¹

A positive trend is that Latin Americans seem to be moving in the direction of the advanced industrial democracies in terms of distinguishing between the poor performance of governments and the system of governance.⁴² While they are generally supportive of democratic government, they are much more critical of the performance of their own governments – and political parties – in terms of issues like corruption. We find a marked difference – as we have in the past – between the determinants of respondents’ satisfaction with the way democracy is working and with their preference for democracy over any other system of government.⁴³

When we explore the determinants of preference for democracy over any other system of government, we find that both wealth and education is positive and significant. Happier people are also more likely to prefer democracy to any other system. This is an important departure from our year 2000 analysis, in which there was no significant link between happiness and preference for democracy (there was a link between happiness and satisfaction with democracy in 2000). One caveat is that we cannot determine the direction of causality, as happier people may assess whatever system of government they happen to live in more positively, as they assess things more positively in general. Yet the *change* in attitudes runs in the same direction as other trends in support for democracy as a system of government.

When we look at the determinants of satisfaction with democracy, they are slightly different. [Table 7] In sharp contrast to 2001, wealthier people are NOT more satisfied with democracy than others in 2002. The coefficient on wealth is actually negative, although not significant. In our year 2000 and 2001 analysis, there was a strong and consistent positive correlation between wealth and satisfaction with democracy. The year 2002 finding is in keeping with many of our others, where we find that the wealthy and middle class are now more critical of the system in general than they were in the past. More educated people are less satisfied, on average, with how democracy is working than others, which is consistent with past findings. Self employed and unemployed people are less satisfied with how democracy is working, while those that favor market policies are more satisfied, on average. As in the case of PRODEMO, happier people were more satisfied with democracy on average than were other respondents.

In an additional exercise, we explored the determinants of satisfaction with democracy by pooling the 2000, 2001 and 2002 data sets and including year dummies. As expected, happier people were, on average, more likely to be satisfied with democracy. Those with more years of

education, the unemployed and the self-employed were less likely to be satisfied. We find no significant wealth effect. The sign on both the year 2001 and 2002 dummies, meanwhile, is negative and significant. In contrast, the sign on the year 2002 dummy on a similar regression with preferring democracy to any other system as the dependent variable was positive and significant, while for the 2001 dummy it is negative and significant.⁴⁴ This supports our interpretation that respondents are increasingly distinguishing between the system and how it is working, a distinction that may be all the more significant due to the deep economic crisis.

Attitudes about Corruption

The Latinobarometro also includes several questions about corruption. In general, respondents in the region think corruption is a major problem, with a large majority of respondents in all countries thinking that corruption is increasing as a problem, and with respondents in Argentina leading the pack. When we compare the year 2000 responses about concern for corruption and those for 2002, we find a great deal of similarity in responses, which is not surprising given the already high level of concern for corruption in the year 2000. Less than 5% of respondents either year believed that it had fallen.

Corruption features strongly in respondents' criticisms of democracy and the market. When we include a dummy for those that have seen or been victim to a corrupt act in our democracy regressions, we find that having been a victim is negatively correlated with satisfaction with democracy, while there is no significant correlation with preference for democracy.⁴⁵ Again, this is in keeping with the thesis that respondents are better able to distinguish between how democracy is performing and the system itself. When we include the

corruption dummy in our pro-market regressions, we find that those that have known an act of corruption are much less favorable to the market than are others.

We also looked at the determinants of responses for those that think corruption has increased and those that have witnessed a corrupt act. We find that men are more likely to have witnessed a corrupt act than women; that wealthier and more educated people were more likely (which makes sense as the poor are least able to pay bribes and therefore to be solicited for one). When we look at responses about whether there was more or less corruption, we find that women were more likely than men to believe that corruption had increased, as were those who believed that taxes should be low regardless of the tradeoffs.⁴⁶

We tried to explore the links between all of these variables and propensity to political activism and willingness to join in riots. When we explore the determinants of willingness to take part in political activities, based on a question that asked respondents if they ever had or would participate in an authorised demonstration; occupy land or buildings; and/or participate in a riot, we find that there is, not surprisingly, a negative age trend, with younger people more likely to participate until approximately middle age (36 years). The coefficient on wealth is insignificant, which is surprising given it is commonly assumed that deprived individuals are much more likely to be dissatisfied with their situation and therefore to protest.

There are two possible interpretations. One is that there are changing attitudes among the wealthy. Another is that upwardly mobile respondents in the middle and lower middle class are more likely to be dissatisfied than are the very poor.⁴⁷ This is in part because those in the middle are more likely to have more information about how the very wealthy live and therefore more concerned about relative income differences, and in part because the very poor tend to have less

free time – for example to participate in politics (and therefore very high opportunity costs of time, something which is not typically recognised).⁴⁸

More educated people are more likely to take part in political activism, as are those that lean to the left, and those that use the Internet. Rather surprisingly, there is no significant link between views about the distribution of income and political activism, though this may be because almost everyone believes the distribution of income is unfair. People that had known an act of corruption were more likely to take part in political activism. Happier people and those with high expectations for future mobility for themselves and their children, and those that preferred democracy to any other system were LESS likely to take part in political activism, which is certainly an intuitive finding.

We get few significant findings on the determinants of those willing to participate in riots, but in part this may reflect fears about answering that question honestly. We do find a negative correlation between high expectations of future mobility and willingness to participate in riots, as in the case of high expectations for future mobility and political activism.

There is certainly a link between the Internet and political activism, which supports our own earlier hypotheses that global information plays a role as people assess their relative positions. When we look at the determinants of Internet use, we find, not surprisingly, that there is a strong correlation with wealth and education levels, and with age (being young). Self employed and unemployed people were much more likely than others to use the internet (looking for jobs, no doubt). And students and those that lean to the left were also more likely than others to use the Internet, again not a great surprise.⁴⁹

Conclusion

Given the extent and severity of the crisis in Latin America and the myriad predictions of a looming backlash against reform, our results give us room for very cautious optimism. There was a decrease in subjective well being in the region, and that decline was largely driven by responses in the crisis countries. Given the strong links between positive assessments of well being and support for markets and democracy, the decline is cause for some concern. That said, most respondents made a distinction between the performance of particular governments and that of democracy as a system of government. Support for the latter actually increased in the context of economic crisis – and indeed was higher than average in the crisis countries - which is a very positive sign. We also find that respondents are making a distinction between support for market policies and satisfaction with the way the market is working. That distinction holds for the crisis countries. While there is no significant difference between generic support for market policies in the crisis and non-crisis countries, there is clearly less satisfaction with how the market is working in the former set of countries.

There was a notable decline in satisfaction with market policies in the region, a decline that was most marked among middle income respondents. The strong links that we have previously found between wealth levels and support for market policies were much less evident in the 2002 survey. There was also a marked decline in support for privatisation across the board. In related analysis, we find that corruption features strongly in respondents' criticisms of democracy and the market, with wealthier and more informed people (those that use the internet) more likely to think corruption was a serious problem. Those that had witnessed a corrupt act also expressed more willingness to take part in political activism.

We found a new and rather surprising positive link between wealth and support for taxation for social services. In addition, wealthier people are now not more likely to believe that the distribution of income is unfair. This suggests that either wealthy respondents are feeling more vulnerable and would like better government services to fall back on and/or that their diminished faith in market policies is translating into more support for a government role in furthering societal objectives more generally. Given the strong need for fiscally sustainable domestic social contracts in the region, we view this as a positive sign.

Finally, as in previous years, those with high expectations for their own and their children's future were also more likely to be supportive of markets and democracy. Yet expectations for the future were significantly lower in the crisis than in the non-crisis countries. Sustaining positive expectations for the future among a broad base of respondents will become more difficult if the economic crisis in the region broadens and deepens. This in turn could have implications for people's attitudes about the market and democracy, and their willingness to work hard to save for and invest in the future.

¹ 'Latin America and the Caribbean: Economic Growth Likely to Fall 0.8% in 2002', *CEPAL News*, Vol. XXII, No.8, August 2002.

² Rafael di Tella, Robert MacCulloch, and Andrew Oswald. 'The Macroeconomics of Happiness.' Discussion paper series 19, Oxford University Centre for Economic Performance, 1997.

³ Carol Graham and Stefano Pettinato. 'Happiness, Markets, and Democracy: Latin America in Comparative Perspective', *Journal of Happiness Studies*, vol. 2 (2001), pp. 237-268.

⁴ The surveys are conducted annually by a prestigious research firm in each country, and the survey is coordinated and produced by Latinobarometro, a non-profit organisation based in Santiago de Chile and directed by Marta Lagos (www.latinobarometro.org). The first survey was carried out in 1995 and covered 8 countries. Funding began with a grant from the European Community and is now from multiple sources. Access to data is by purchase, with a four-year lag for public release. One of the authors has collaborated closely with the survey team for several years and therefore has access to the data. While the sample size tends to be slightly larger for larger countries, the data are not weighted by country population. To attempt to get around this, we analyse the data both as a region-wide sample without country dummies, and then separately with country dummies to account for any country specific traits.

⁵ For a critique of the use of survey data in economic analysis, see Marianne Bertrand and Sendhil Mullainathan. 'Do People Mean What They Say? Implications for Subjective Survey Data.' *American Economic Review* vol. 91 (2001), pp. 67-72. Despite these often legitimate criticisms, economists are increasingly utilizing survey data – and therefore expressed rather than revealed preferences – as an analytical tool.

⁶ On the politics of reform, see, among others, Kurt Weyland. *The Politics of Market Reform in Fragile Democracies: Argentina, Brazil, Peru, and Venezuela*, (Princeton, 2002); Stephen Haggard and Robert Kaufman, *The Political Economy of Democratic Transitions*, (Princeton, 1995). On opinion polls, see Susan Stokes, *Mandates and Democracy*, (Cambridge, 2001), and *Public Support for Market Reforms in New Democracies*. (Cambridge, 2001).

⁷ While research on happiness has traditionally been the realm of psychologists, in the past few years economists have begun to analyse subjective well being and its relation to objective economic conditions and individual economic behavior. Most notably, the 2002 Nobel Prize in Economics was awarded to a psychologist, Daniel Kahneman, for his path breaking work on the psychological determinants of economic decision-making. For a summary of the work on happiness by psychologists, and for the validation that they find between the way in which individuals answer happiness surveys and psychological measures of happiness, see Diener and Biswas-Diener (1999).

⁸ Bill Nordhaus, meanwhile, has led a major effort to incorporate environmental and other criteria into national income accounts. See William Nordhaus, 'The Future of Environmental and Augmented National Accounts: An Overview', *Survey of Current Business* vol. 79 (November 1999), pp. 45-9.

⁹ R. Easterlin, 'Does Economic Growth Improve the Human Lot?', in P.A. David et al (eds.) *Nations and Households in Economic Growth*, (New York, 1974); David Blanchflower and Andrew Oswald, 'Well Being Over Time in Britain and the USA', Mimeo, Warwick University, 1999; Ed Diener and Robert Biswas-Diener, 'Income and Subjective Well-Being: Will Money Make Us Happy?', Mimeo, University of Illinois, 1999.

¹⁰ The evidence here is a bit mixed, with a few studies finding a marginal increase in happiness as countries grow wealthier, but most finding no increase at all. Ed Diener, Ed Sandvik, Larry Seidlitz, and Marissa Diener, 'The Relationship Between Income and Subjective Well-Being: Relative or Absolute?', *Social Indicators Research* vol. 28 (1993), pp. 195-223; Blanchflower and Oswald (1999); Bruno Frey et al., *Happiness and Economics: How the*

Economy and Institutions Affect Human Well-Being, (Princeton, NJ, 2002); C. Graham et al., *Happiness and Hardship: Opportunity and Insecurity in New Market Economies*, (Washington, DC, 2002)..

¹¹ Rafael di Tella, Robert MacCulloch, and Andrew Oswald, 'The Macroeconomics of Happiness.' Discussion paper series 19, Oxford University Centre for Economic Performance, 1997; Carol Graham and Stefano Pettinato, 'Happiness, Markets, and Democracy: Latin America in Comparative Perspective', *Journal of Happiness Studies* vol. 2 (2001), pp. 237-268.

12 See Graham et al., *Happiness and Hardship*. An important related question is whether happiness has causal effects on income. Studies by psychologists Diener and Biswas-Diener in the United States and Australia find that more cheerful people earn more in future periods. More recently, using panel data from Russia, Graham, Eggers, and Sukhtankar find that happier people earn more income in future periods. They also find that respondents with negative perceptions – such as high fear of unemployment – earn less money on average in future periods. This suggests that fluctuations in well being levels can have significant effects on individuals' labor market performance. Carol Graham, Andrew Eggers, and Sandip Sukhtankar, 'Does Happiness Pay? An Exploration Based on Panel Data from Russia', *Journal of Economic Behavior and Organisation*, forthcoming.

13 By this definition, Argentina, Bolivia, Colombia, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Uruguay and Venezuela were crisis countries, and Brazil, Chile, Costa Rica, Ecuador, El Salvador and Peru were non-crisis countries.

14 See, for example, Richard Easterlin, 'Is Reported Happiness Five Years Ago Comparable to Present Happiness? A Cautionary Note', *Journal of Happiness Studies* vol. 3 (2002), pp. 193-8.

¹⁵ Simple tabs cannot be compared directly with the year 2000 since the scale responses used were different.

¹⁶ The survey was taken in April 2002, well before investors' jitters about the October 2002 elections resulted in a huge increase in the risk premium on Brazil's bonds, which in turn increased the likelihood of a default and created considerable uncertainty about economic conditions in the future.

¹⁷ See Easterlin (2002) and Bertrand and Mullainathan (2001).

¹⁸ Psychologists also find that responses to these surveys are 'validated' fairly consistently by psychological measures of happiness, such as respondents smiling more. See, for example, Ed Diener, 'Subjective Well Being', *Psychological Bulletin* vol. 95 (1984), pp. 542-75. An additional methodological difficulty in making comparisons is the placement of the question in the Latinobarometro survey. In the year 2002, the happiness question was the first question in the survey, where it should be to get an answer that is unbiased by previous questions. However in 2001, as in previous years, it was further down in the survey, in this case after a number of questions about unemployment and discrimination. This could bias answers downwards in earlier years, and reduces the accuracy of comparisons. In addition to the ordering biases, in 2000 the offered responses were different, making comparison of simple tabulations impossible. Not very satisfied, satisfied, fairly satisfied, or very satisfied in 2000, as opposed to not at all happy, not very happy, quite happy, or very happy in 2001 and 2002. While the words happy or satisfied have been shown to be interchangeable – with a correlation coefficient of 0.95 - the different categories are not. See, for example, Diener and Biswas-Diener (1999).

¹⁹ Coefficients cannot be compared in ordered logit models as they refer to marginal probabilities. However, we ran the same model with an OLS regression, and after confirming that the results were no different from the ordered logit results, compared the coefficients on the crisis dummy in the OLS regression. Results available from the authors.

²⁰ See Graham, Eggers, and Sukhtankar (2003).

²¹ This includes extremely unusual increases in the age level in Ecuador, and unusual increases in happiness levels in Panama. Nevertheless, the 95% confidence interval for the inflection point was 54-69 years, indicating a significant

change over previous years. A bootstrap technique was used to determine this interval; results available from the authors.

²² Robert Cummins and Helen Nistico, 'Maintaining Life Satisfaction: The Role of Positive Cognitive Bias', *Journal of Happiness Studies* vol. 3 (2002), pp. 37-69.

²³ There is some work on subjective well being in Australia after the events of September 11. See Robert Cummins, 'September 11 – One Year On: Data from the Australian Unity Well Being Index', Mimeo, Deakin University, Deakin, Australia, 2002. Mean happiness scores actually increased in the six-month period after September 11. But given that the events occurred in a distant country, there may have been the opposite of a national crisis effect, such as 'what a relief that such problems are so far away'. In any event, this does not answer the question of the effects of such a crisis within one's own country.

²⁴ Roland Benabou and Efe Ok.. 'Social Mobility and the Demand for Redistribution: The POUM Hypothesis', NBER Working Paper No. 6795, 1998; A. de Toqueville, ed., *Democracy in America*, (New York, 1969); Alberto Alesina, Rafael di Tella, and Robert MacCulloch, 'Inequality and Happiness: Are Europeans and Americans Different?', NBER Working Paper No. 8198, 2001.

²⁵ In the year 2000, 57% of US respondents (in the GSS survey) thought their children would live better than they, while 58% of those in the Latinobarometro survey thought so. See Carol Graham, 'Crafting Sustainable Social Contracts in Latin America: Political Economy, Public Attitudes, and Social Policy', Paper prepared for the Inter-American Development Bank Meeting on Social Policy, Santiago, Chile, 2002.

²⁶ The sign on education also flips from positive and significant (at the 10% level), to negative but insignificant.

²⁷ Graham, Eggers, and Sukhtankar (2002).

²⁸ Graham et al., *Happiness and Hardship*.

²⁹ For an assessment of the distributive impact of privatisation in the region, see David McKenzie and Dilip Mookherjee, 'The Distributive Impact of Privatisation in Latin America: Evidence from Four Countries', Mimeo, Inter-American Development Bank, 2003.

³⁰ We tested the significance of these results with a Chi-squared test; they are significant at the 1% level.

³¹ We have tried to limit the number of tables; these results are available from the authors.

³² The results on SATMARKET are only significant when we treat the entire sample as a regionwide sample, without country dummies. With the dummies the results are in the same direction but insignificant.

³³ Nancy Birdsall, Carol Graham, and Stefano Pettinato, 'Stuck in the Tunnel: Has Globalisation Muddled the Middle Class?', Centre on Social and Economic Dynamics Working Paper Series No. 13, The Brookings Institution, Washington, DC, 2001, and Jere Behrman, Nancy Birdsall, and Miguel Szekely, 'Economic Policy and Wage Differentials in Latin America', Mimeo, Carnegie Endowment for International Peace, Washington, DC, 2001.

³⁴ Behrman, Birdsall, and Szekely (2001) find that the effects of trade on wage differentials are insignificant, while those of financial market liberalisation and a variable that proxies for the effects of technological were the primary drivers - although the effects last only for a few years. It is unlikely that public opinion polls would be able to capture these subtle distinctions.

³⁵ Graham et al., *Happiness and Hardship*.

³⁶ One exception is Chile, where social insurance systems are fairly well developed and an unemployment insurance scheme was introduced in December 2001. Another is Costa Rica, although the state of public services has deteriorated slightly in the past decade or so.

³⁷ Again, to limit the number of tables, we have not included these results. They are available on request. As an additional check on these results, we split the sample into those who were likely to pay taxes (PAYTAX) and those who were not, under the assumption that those who were likely to be paying taxes would be less likely to support more taxes than those who were not. With the same regression as for LOWTAX, but only with the subset of the sample that is more likely to actually be paying taxes, the coefficient on wealth is still negative and significant. We thank Eduardo Aninat for suggesting making a sub-set of those who were likely to pay taxes.

³⁸ Carol Graham and Stefano Pettinato, 'Frustrated Achievers: Winners, Losers, and Subjective Well Being in New Market Economies', *Journal of Development Studies* vol. 38 (April 2002), pp. 100-140 and Graham (2002).

³⁹ Regression results available from the authors.

⁴⁰ See K. O'Rourke et al., 'The Determinants of Individual Trade Policy Preferences: International Survey Evidence', in S. Collins et al. (eds.), *Brookings Trade Forum*, (Washington, DC, 2001).

⁴¹ See also 'The Latinobarometro Poll: Democracy Clings on in a Cold Climate', *The Economist*, August 15, 2002.

⁴² Author's discussions with Marta Lagos, Director, Latinobarometro, on the difference between the results of the Euro- and Latinobarometro polls, Santiago, Chile, May 2002.

⁴³ For past years, see Graham et al., *Happiness and Hardship*.

⁴⁴ Results are available from the authors.

⁴⁵ Asking people about their perceptions of corruption in general tends to be far less accurate than asking them this pointed question. We thank Shang-Jin Wei of Brookings for this insight and his help phrasing the question.

⁴⁶ Tabled results available from the authors.

⁴⁷ For recent evidence on this from the region, see Graham et al., *Happiness and Hardship*. For classic work on the topic, see S. Huntington, *Political Order in Changing Societies*, (New Haven, CT, 1968), and Albert Hirschman, 'Changing Tolerance for Income Inequality in the Course of Economic Development', *Quarterly Journal of Economics* vol. 87 (1973), pp. 544-66. When we split the wealth variable into thirds and include dummies for either the top two or bottom two thirds as independent variables in place of the wealth index, we find that the those in the top third of the distribution are more likely than those in the lower two to take part in political activism. Given that the wealth index does not capture the assets of the very wealthy, this most likely reflects more of a propensity to protest among the middle and upper middle classes than among the poor and very poor. Results available from authors.

⁴⁸ Standard economic assumptions, which are based on earnings potential, attribute very low opportunity costs to the poors' time. This ignores the tremendous time constraints on very poor households. Consider, for example, the time preferences of a single head of household who works as a domestic servant and must commute on several buses to a job in the wealthy part of town, works very long hours, and has children at home. Simple tasks, such as getting water from a stand pipe or from barrels that then needs to be boiled, also take more time than average. Time for joining in protests – or even finding out about them – is rare. In addition, the very poor tend to be most isolated from social networks and neighborhood organisations, perhaps due to the same constraints. See C. Graham, *Safety Nets, Politics, and the Poor: Transitions to Market Economies*, (Washington, DC, 1994).

⁴⁹ In recent work, Robert MacCulloch and Silvia Pezzini examine the relationship between political freedom, economic growth, and preferences for revolution, based on data for 61 countries. They find that controlling for personal traits, more freedom and growth both reduce support for revolution. Our analysis finds that - in addition to those that prefer democracy to any other system of government - respondents that describe themselves as devout or having faith are much less likely to express support for or have participated in disruptive political activities or riots. Robert MacCulloch and Silvia Pezzini, 'The Role of Freedom, Growth, and Religion in the Taste for Revolution', Mimeo, Princeton University and London School of Economics, 2002.

Appendix A

Variable	Explanation
wealthindex	Index of durables and other items owned by household (0-11)
education	Years of education of respondent (1-16)
happy	Generally speaking, would you say that you are very happy, quite happy, not very happy, not at all happy? (4-1)*
POUMshort	In the next 12 months do you think that your economic situation and that of your family will improve, stay the same, or get worse compared to the way it is now? (5-1)*
POUMkids	Do you believe your children will live better, the same, or worse than how you live today? (3-1)
POUMentitle	How much time would you need to get the standard of living you think you entitle? Never-already have it (1-7)
PPM	Do you consider your economic situation and that of your family to be better, the same, or worse than 12 months ago? (5-1)*
crisis	0 if Brazil, Chile, Costa Rica, Ecuador, El Salvador and Peru, 1 otherwise
futurecountryecon	In the next 12 months do you think that, in general, the economic situation of your country will improve, stay the same, or get worse compared to the way it is now? (5-1)*
curreconsit	In general, how would you describe your present economic situation and that of your family? Very bad-Very good (1-5)
currcountryecon	In general, how would you describe the present economic situation of the country? Very bad-Very good (1-5)
pastcountryecon	Do you consider the current economic situation of the country to be better, the same, or worse than 12 months ago? (5-1)*
satmkt	In general, would you say that you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the way the market economy works in the country? (4-1)
mrkt	The market economy is the best for the country. Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree? (4-1)
prodemo	Index of statements preferring democracy over authoritarian government (1-3)
satdemo	In general, would you say that you are very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the way democracy works in the country? (4-1)
polyscale	In politics, people normally speak of "left" and "right." On a scale where 0 is left and 10 is right, where do you place yourself?
equitdistrib	How fair do you think the distribution of income is in the country? Very fair-Very unfair (4-1)
lowtax	Taxes should be low as possible, even if welfare spending suffers. Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree? (4-1)
privatisation	The privatization of state companies has been beneficial to the country. Do you strongly agree, somewhat agree, somewhat disagree or strongly disagree? (4-1)
fearunemp	How concerned would you say you are that you will be left without work or unemployed during the next 12 months? Very concerned-not at all concerned (1-4)
internet use	1 if surfs the web
corruption	1 if known an act of corruption in the past 12 months
political activism	Index based on willingness to perform certain protest actions (0-10)

* Scale used in 2000 survey not comparable with 2001 and 2002 surveys.

Table 1: Summary Statistics

Variable	2002			2001			2000		
	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
age	18,526	38.75	16.08	18,135	38.55	16.01	18,125	38.38	15.65
age squared	18,526	1,760.13	1,450.77	18,135	1,741.97	1,429.28	18,125	1,717.74	1,391.65
male	18,526	0.49	0.50	18,135	0.49	0.50	18,125	0.49	0.50
married	18,526	0.57	0.50	18,135	0.56	0.50	18,125	0.57	0.50
wealthindex	17,782	5.89	2.56	17,524	6.06	2.55	17,139	6.42	2.42
education	18,525	8.61	4.54	18,135	8.70	4.52	18,092	10.01	4.50
unemployed	18,526	0.09	0.28	18,135	0.07	0.26	18,125	0.06	0.24
self-employed	18,526	0.30	0.46	18,135	0.30	0.46	18,125	0.28	0.45
public employee	18,526	0.09	0.28	18,135	0.09	0.28	18,125	0.10	0.30
private employee	18,526	0.16	0.36	18,135	0.17	0.38	18,125	0.17	0.38
student	18,526	0.09	0.28	18,135	0.09	0.28	18,125	0.11	0.31
retired	18,526	0.07	0.26	18,135	0.07	0.25	18,125	0.07	0.26
housewife	18,526	0.21	0.41	18,135	0.21	0.41	18,125	0.20	0.40
happy	18,382	2.85	0.87	18,012	2.91	0.85	17,986	2.37	1.04 *
POUMshort	16,832	3.23	1.01	16,564	3.15	1.06	16,379	2.25	0.72
POUMkids	16,058	2.30	0.82	15,954	2.34	0.80	16,109	2.43	0.75
POUMentitle	16,194	4.03	1.69	--	--	--	--	--	--
PPM	18,274	2.89	0.95	17,911	2.83	1.01	17,919	1.93	0.67 *
crisis	18,526	0.64	0.48	18,135	0.65	0.48	18,125	0.65	0.48
futurecountryecon	16,766	2.82	1.09	16,650	2.72	1.12	16,392	2.02	0.78 *
curreconsit	18,433	2.93	0.80	18,026	2.86	0.82	18,031	3.00	0.79
currcountryecon	18,414	2.31	0.90	18,010	2.21	0.91	18,051	2.44	0.90
pastcountryecon	18,244	2.46	1.04	17,955	2.40	1.08	17,864	1.74	0.68 *
satmkt	17,305	2.04	0.82	--	--	--	--	--	--
mrkt	15,427	2.81	0.86	16,414	2.54	0.97	15,447	2.78	0.89
prodemo	16,563	2.47	0.77	16,029	2.33	0.81	17,124	2.45	0.78
satdemo	17,234	2.22	0.89	16,371	2.09	0.84	17,552	2.31	0.91
polscale	13,396	5.81	3.01	14,236	5.87	2.81	14,628	5.33	2.66
equitdistrib	17,519	1.82	0.71	17,388	1.76	0.69	--	--	--
lowtax	16,679	2.81	0.90	--	--	--	--	--	--
privatisation	16,792	2.15	0.92	16,754	2.12	0.93	16,736	2.28	0.92
fearunemp	13,282	1.71	0.99	15,067	1.83	1.01	14,887	1.95	1.06
internet use	18,245	0.21	0.41	--	--	--	--	--	--
corruption	18,000	0.29	0.45	17,798	0.27	0.45	--	--	--
political activism	17,527	0.89	1.51	--	--	--	--	--	--

* Scale used in 2000 survey not comparable with 2001 and 2002 surveys.

Table 2: Selected Economic Indicators in Latinobarometro Countries

	Growth in GDP per capita, 2002 (1)	Growth in GDP per capita, 2001 (2)	Growth in GDP per capita, 2000 (3)	Growth in GDP per cap, 1992-2001 (4)	Unemployment, 2001 (5)	Projected Poverty Headcount, 2002 (6)
Argentina	-12.1	-5.6	-2.0	1.3	17.4 ^a	30.3
Bolivia	-0.2	-0.9	0.1	1.0	8.5 ^b	61.2
Brazil	0.2	0.2	2.6	1.3	6.2 ^b	36.9
Chile	0.6	1.6	3.1	4.0	9.1 ^c	20
Colombia	-0.1	-0.4	0.4	0.5	18.2 ^b	54.9
Costa Rica	0.7	-1.2	-0.1	2.2	5.8 ^a	21.7
Ecuador	1.6	4.1	0.4	-0.1	10.4 ^a	60.2
El Salvador	0.4	0.0	0.1	2.2	7.0 ^a	49.9
Guatemala	-0.7	-0.3	0.7	1.3	na	60.4
Honduras	-0.6	0.1	2.1	0.4	6.3 ^a	79.1
Mexico	-0.3	-1.9	5.2	1.3	2.5 ^a	42.3
Nicaragua	-2.1	0.3	3.6	1.1	10.7 ^c	67.4
Panama	-1.1	-1.1	1.0	1.9	16.9 ^a	30.8
Paraguay	-5.4	-0.1	-3.1	-0.9	10.8 ^a	61.8
Peru	2.9	-1.4	1.4	2.0	9.3 ^b	49
Uruguay	-11.1	-4.1	-2.6	1.6	15.3 ^a	11.4
Venezuela	-8.7	1.0	1.8	-0.5	13.4 ^c	48.5
Overall	-1.9	-1.2	2.2			

Notes:

The overall figure also includes Cuba, Haiti, and the Dominican Republic in all three years.

a Urban areas

b Selected major urban centers

c Nationwide total

Sources:

ECLAC, www.eclac.org

columns 1-3 Preliminary Overview of the Economies of Latin America and the Caribbean, 2002

columns 4-6 Economic Survey of Latin America and the Caribbean, 2001-2002

Table 3: Standard Happiness Model

	2002		2001		2000			
	Coefficient	Z stat	Coefficient	Z stat	Coefficient	Z stat		
Age	-0.0436	-8.14	-0.0440	-8.29	-0.0359	-6.68	-0.0163	-2.92
Age Squared	0.0004	5.97	0.0003	5.37	0.0004	5.99	0.0001	2.06
Male	0.0029	0.09	0.0034	0.11	0.1299	4.13	0.0355	1.13
Married	0.1830	5.77	0.1329	4.23	0.0407	1.29	0.1069	3.34
Wealth Index	0.1039	14.65	0.1469	24.04	0.1113	18.28	0.1663	25.55
Education	0.0230	5.67	-0.0105	-2.90	-0.0214	-5.97	-0.0265	-7.12
Employment categories								
Unemployed	-0.3490	-5.79	-0.2626	-4.42	-0.4464	-6.99	-0.3064	-4.58
Self-employed	-0.0742	-1.65	-0.1006	-2.26	-0.1616	-3.64	-0.1112	-2.47
Public employee	-0.0373	-0.61	0.0074	0.12	0.1253	2.08	0.0413	0.7
Private employee	-0.0245	-0.47	0.0267	0.52	-0.0584	-1.16	0.0921	1.83
Student	0.0434	0.65	-0.0972	-1.48	-0.0245	-0.37	-0.0118	-0.19
Retired	-0.1762	-2.46	-0.1423	-2.02	-0.1264	-1.76	-0.0525	-0.74
Crisis	--	--	0.0666	2.31	0.2879	9.85	0.3331	11.47
# of observations	17645		17645		17410		16980	
Pseudo R ²	0.0469		0.0227		0.0143		0.0204	

For all estimations, unless noted otherwise:

Ordered logit estimations with dependent variable noted in title or column.

Unless Crisis dummy used, country dummies included in estimation but not shown; excluded country is Uruguay.

To check for country-induced heteroskedasticity, we reproduced all regressions using White's robust standard errors, but found identical results.

Comparison category for employment dummies is housewife/husband.

All categorical variables ordered from 'bad' or 'negative' responses to 'good' or positive' ones. See Appendix for details.

Table 4: POUMkids estimations

	2002		2001		2000			
	Coefficient	Z stat	Coefficient	Z stat	Coefficient	Z stat		
Age	-0.0364	-4.94	-0.0387	-5.84	-0.0197	-2.97	-0.0197	-2.97
Age Squared	0.0003	3.83	0.0004	4.83	0.0002	2.10	0.0002	2.10
Male	0.0681	1.63	0.0339	0.87	-0.0063	-0.16	-0.0063	-0.16
Married	0.0344	0.81	0.0388	0.99	0.1273	3.29	0.1273	3.29
Wealth Index	0.0002	0.02	0.0225	2.94	0.0616	7.93	0.0616	7.93
Education	-0.0059	-1.11	-0.0042	-0.92	0.0083	1.88	0.0083	1.88
Employment categories								
Unemployed	-0.2352	-2.94	-0.2130	-2.89	0.0379	0.48	0.0379	0.48
Self-employed	-0.0512	-0.83	-0.0844	-1.53	-0.0442	-0.80	-0.0442	-0.80
Public employee	-0.0091	-0.12	-0.0780	-1.07	-0.0391	-0.53	-0.0391	-0.53
Private employee	0.0101	0.15	0.0165	0.26	-0.0028	-0.04	-0.0028	-0.04
Student	-0.0614	-0.69	-0.1323	-1.60	0.0071	0.08	0.0071	0.08
Retired	-0.0292	-0.30	0.0059	0.07	-0.0018	-0.02	-0.0018	-0.02
Happy	0.1192	5.08	0.0985	4.64	0.1666	7.82	0.1666	7.82
Family economic situation								
Future	0.4799	20.54	0.4896	22.87	0.4027	20.23	0.4027	20.23
Current	0.1029	3.58	0.1026	3.93	0.0564	2.21	0.0564	2.21
Past	0.0673	2.81	0.0679	3.09	0.1084	5.22	0.1084	5.22
Country's economic situation								
Future	0.1835	8.69	0.2272	11.89	0.1900	10.20	0.1900	10.20
Current	0.0182	0.73	-0.0009	-0.04	0.0776	3.54	0.0776	3.54
Past	0.0007	0.03	0.0225	1.14	0.0871	4.57	0.0871	4.57
Crisis	--	--	-0.1970	-5.34	-0.1548	-4.17	-0.1548	-4.17
Prodemo	0.0719	2.99	--	--	--	--	--	--
Satmkt	0.0891	3.38	--	--	--	--	--	--
# of observations	11748		13316		13417		12962	
Pseudo R ²	0.0834		0.0724		0.772		0.0859	

Table 5: Satisfaction with and Support for Market Policies

	Market Satisfaction		Support for market policies					
	2002		2002		2001		2000	
	Coefficient	Z stat	Coefficient	Z stat	Coefficient	Z stat	Coefficient	Z stat
Age	-0.0098	-8.33	-0.0083	-6.56	0.0035	1.13	-0.0016	-1.22
Male	0.1110	3.41	0.1001	2.88	0.1048	3.26	0.1104	3.22
Married	-0.0977	-3.08	0.0014	0.04	0.0289	0.92	-0.0336	-0.98
Wealth Index	0.0240	3.84	-0.0078	-1.17	0.0151	2.45	0.0285	4.05
Education	-0.0557	-14.71	-0.0284	-6.99	-0.0043	-1.17	0.0027	0.66
Employment categories								
Unemployed	-0.1981	-3.2	-0.0431	-0.65	-0.0657	-1.03	-0.0139	-0.19
Self-employed	-0.0412	-0.89	-0.0127	-0.25	0.0396	0.87	0.0182	0.36
Public employee	0.2175	3.54	-0.0058	-0.09	-0.0634	-1.05	-0.0334	-0.52
Private employee	0.0275	0.52	-0.0310	-0.54	-0.0085	-0.16	-0.0298	-0.53
Student	0.0855	1.29	-0.0595	-0.84	-0.0657	-0.99	-0.0384	-0.57
Retired	0.0021	0.03	0.0609	0.77	-0.1138	-1.52	-0.0665	-0.85
Crisis	-0.3391	-11.26	-0.0091	-0.28	-0.1017	-3.34	-0.1287	-4.03
# of observations	16626		14817		15889		14556	
Pseudo R ²	0.0104		0.003		0.0015		0.0016	

Table 6: Preference for Democracy

	2002		2001		2000	
	Coefficient	Z Stat	Coefficient	Z Stat	Coefficient	Z Stat
Age	0.0204	3.26	0.0179	2.94	0.0216	3.32
Age squared	-0.0002	-2.26	-0.0001	-1.24	-0.0001	-1.95
Male	0.0358	0.97	0.1523	4.35	0.0618	1.72
Married	0.0149	0.41	-0.0321	-0.92	0.0029	0.08
Wealth Index	0.0260	3.70	0.0676	10.05	0.0030	0.4
Education	0.0211	4.92	0.0451	11.25	0.0360	8.44
Employment categories						
Unemployed	0.0116	0.17	0.0763	1.07	0.0435	0.58
Self-employed	0.0415	0.80	-0.0211	-0.42	-0.0534	-1.05
Public employee	0.0308	0.44	0.0872	1.31	0.1029	1.51
Private employee	0.0613	1.04	-0.0143	-0.25	0.0742	1.29
Student	0.1434	1.88	0.0134	0.18	0.2990	4.14
Retired	0.2639	3.06	0.1790	2.14	0.2678	3.12
Crisis	0.1963	5.84	0.1657	5.04	-0.0821	-2.46
# of observations	15894		15489		16176	
Pseudo R ²	0.0055		0.0164		0.0068	

Table 7: Satisfaction with Democracy

	2002		2001		2000	
	Coefficient	Z Stat	Coefficient	Z Stat	Coefficient	Z Stat
Age	0.0069	1.24	-0.0181	-3.14	-0.0092	-1.58
Age squared	-0.0001	-1.80	0.0002	2.54	0.0001	2.22
Male	0.0617	1.91	0.0943	2.84	0.0142	0.44
Married	-0.0646	-1.99	0.0095	0.28	-0.0048	-0.14
Wealth Index	-0.0018	-0.30	0.0202	3.16	0.0740	11.19
Education	-0.0346	-9.19	-0.0170	-4.47	-0.0191	-4.95
Employment categories						
Unemployed	-0.3170	-5.14	-0.2784	-4.15	-0.2123	-3.08
Self-employed	-0.1524	-3.29	-0.1082	-2.27	-0.2621	-5.63
Public employee	0.0539	0.89	0.0323	0.51	0.0617	1.02
Private employee	-0.0477	-0.91	-0.0098	-0.18	-0.0583	-1.13
Student	-0.0908	-1.36	-0.2215	-3.18	-0.2119	-3.28
Retired	0.2936	3.99	0.2897	3.75	0.0390	0.53
Crisis	-0.2013	-6.73	0.0353	1.14	0.2995	9.96
# of observations	16536		15814		16562	
Pseudo R ²	0.005		0.0028		0.0093	