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by

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Abstract:

This paper addresses the possibility of a correlation between inflation and investment for countries with inflation below 20%. The existing literature typically finds no correlation below this level of inflation. By instrumenting with an extensive set of political stability and regime variables I have shown that within a lower range of inflation rates, between 5% and 9%, this correlation is positive, highly significant, and shows no signs of reverse causality.

JEL Classification: E0, E5

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Introduction

The Mundell-Tobin effect states that an increase in inflation causes an increase in capital investment, and in turn, an increase in growth. In contrast to Mundell [1963, 1965] and Tobin [1965], another line of thought argues that high inflation can lead to high inflation variability, and this variability decreases investment and growth. Demetriades [1989] cites many authors who have found a positive relation between inflation variability and the level of inflation, while Davis and Kanago [1996] cite many authors who have found support for the negative relation between inflation uncertainty and growth. Aizenman and Marion [1993] even investigate what they call *inflation surprises* and its negative impact on investment. Empirical support for a negative relationship specifically between investment and inflation that is not channeled through inflation variability can be seen in Greene and Villanueva [1991], Fischer [1993], and Barro [1996]. However, this evidence for a negative inflation and investment (or growth) relationship is tenuous. As Temple [2000] observes, the relationship does not hold for countries with low inflation (typically below 15 or 20%), and for higher rates, the correlation is mostly influenced by the existence of a few outliers [Kirshner, 2001].

In recent work, authors have argued that the lack of a correlation between inflation and investment in low inflation countries reflects the fact that inflation itself is an endogenous variable. To overcome this problem, one can use instrumental variables for current inflation. One strand of literature uses variables such as lagged inflation, central bank independence, or a limited set of political stability and/or regime characteristics [Barro, 1996; Cukeirman et al., 1993]. Using political variables as instruments makes sense if inflation is primarily driven by monetary policy, and/or political instability. In this paper, I also use political variables as instruments, but extend the list to include a more extensive set of political stability and regime

variables gathered from the political science literature.

As potential instruments, I consider a set of 39 political variables on 76 countries spanning 15 years. I then regress the natural log of the investment to GDP ratio on the estimates of the natural log of inflation attained from the instruments both before and after the data is cropped. The cropping of the data is critical in this study to determine a set of countries where there exists either a positive or negative bivariate relationship. It must be mentioned at this point that the author's purpose of this study is not to explore the inflation/investment nexus in the same way other studies have--studies that have found no relationship. In fact, empirically the literature has become stagnate on this particular topic; but common sense will tell anyone that investment behavior in a country with 2% inflation should be different from investment behavior in a country with 15% inflation. This hypothesis is further supported when considering the vast amounts of literature that positively correlate inflation with inflation variability. In essence, it is not my objective to be necessarily "proper" in my data exploration and estimation; but to explore the data more deeply to extract areas of significant correlations in order to get the existing literature over this perpetual 'hump'.

In each regression I show that politics explains a large portion of inflation and this politically influenced inflation explains a large portion of the variation in investment. Finally, I find that there exists a positive non-linear bivariate relationship between investment and inflation up to approximately 9% inflation. It is this significant influence of inflation on investment within this *low* range of inflation rates that has been lacking in previous cross-country studies. Ahmed and Rogers [2000] also find a positive relationship between inflation and investment for a time series study of the United States; however, it is in cross-country studies where this relationship has not previously been found. Thus the Mundell-Tobin effect *may* be valid for low inflations,

and for high inflations, the costs of inflation may dominate.

The paper is organized as follows; section 1 reviews the current literature on the relationship between politics and inflation. Section 2 describes the data. Section 3 estimates the inflation/politics relationship. Section 4 displays plots of estimated inflation on investment and builds a priori reasoning as to what the empirical results should be. Section 5 estimates the investment/inflation relationship and checks for feedback from investment to the inflation instrument, while section 6 is the conclusion.

1. Inflation and Politics

Many have tried to overcome the difficulty of dealing with the endogeneity issue when evaluating the impact of inflation on investment and growth. As stated by Barro [1998], ". . . an inverse relation between growth and inflation would arise if an exogenous slowing of the growth rate tended to generate higher inflation. This increase in inflation could result if monetary authorities reacted to economic slowdowns with expansionary policies. Moreover, if the path of monetary aggregates did not change, then the equality between money supply and demand at each point in time implies that a reduction in the growth rate of output would tend automatically to raise the inflation rate."

Several ways of correcting for this endogeneity bias include using as instruments a measure of central bank independence (the most commonly used determinant of inflation), lagged inflation, institutional factors such as historical or contemporaneous colonial status, whether a country is ruled under a democracy or dictatorship, and political stability indices such as the number of attempted coups or riots. With the exception of lagged inflation, all of the

above potential determinants of inflation are political in nature. In the search for determinants of inflation, this seems to be the most logical course to take. Kirshner [2001] states that ". . . all monetary phenomena are fundamentally political." He also states that the most commonly used determinant of inflation–central bank independence (CBI)–"represents a political outcome" that in turn affects growth. It is more likely that CBI is a function of either a regime variable (such as whether a government is ruled under a democracy or a dictatorship), a legislative variable (such as whether a government is a parliamentary democracy or a presidential democracy), or a stability variable (such as the number of times a government head has been overthrown). My view is further supported by Banaian and Luksetich [2001] who state that measures of CBI ". . . may simply be proxies for political and economic freedoms that are more important checks of political manipulations of the economic system."

It seems that measuring inflation via CBI aggregates the institutional and stability effects and could reduce the correlation between CBI and investment. Even though some economists have used other political measures as noted above, the set of measures seems to be limited in scope. The political science literature, as Kirshner recognizes, has generated a much more expansive set of these measures that should be utilized in economics. The data set that I use is described below.

2. The Data

I use a data set compiled by Przeworski, Alvarez, Cheibub, and Limongi (PACL) and evaluated in their book *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. The set includes 6 regime variables, and 33 stability and political transition variables. A variable for inflation is also in their data set, but is acquired from the IMF

[1994, CD-ROM] and is defined as the annual rate of growth of the consumer price index.

PACL's data set covers 135 countries yearly from 1950 to 1990 for some countries, with most covering fewer years. I modify the data as follows. First, to eliminate possible serial correlation in the residuals, I use 5-year intervals rather than yearly. Second, it seems to make little sense to run regressions with political stability indices that measure such things as riots and coups, or a regular change-over of presidents using unbalanced panels. In such a case some countries will unduly influence the results if their political variables are allowed to vary over a longer period of time than other countries; quasi-balanced panels should provide uniform results. My data set covers 76 countries at five year intervals with all data beginning in 1970 and typically ending in 1985 (the appendix lists these countries). The average number of observations per country is 3.9. The investment to GDP ratio has been obtained from the Penn World Tables version 5.6 [Heston, et al., 2002]. I do realize that the time dimension of the political data set limits this study's ability to determine the effects of inflation on investment during the 1990's. I would argue that evaluating data prior to 1990 is actually desirable.

It is well-known that growth in the decade of the 90's was largely driven by a wealth effect due to stock and real estate markets worldwide. This effect had an unsystematic impact on the variability of prices during this decade [Martin and Rowthorn, 2004; Guo, 2004]. For policy purposes in estimating the impact of inflation on investment in the future, since the inflation in the stock market has arguably subsided, I suggest it is more useful to use data prior to 1990 rather than after that date.

3. Inflation and Politics: The Estimates

I first estimate a within regression where I include all 33 stability and political transition

variables using a process of elimination based on statistical insignificance. I then include each regime variable one at a time keeping the one that is significant. Taking the model to this parsimonious form is mostly due to the fact that leaving in all variables, even if most variables are statistically insignificant, will influence the estimated values of inflation and may artificially influence investment in later regressions. To correct for heteroskedasticity and heterogeneity in the conditional variance, I use a feasible generalized least squares (FGLS) regression method. The heterogeneous part was the inclusion of the region of Oceania in the auxiliary regression that determined the weights. The estimates from the final model are below.

Table 1: Instrument Regression

The dependent variable is the natural log of inflation	Estimate	P-value	T-statistic
Institutions	0.281	0.011 **	2.55
Age	0.024	0.001 **	3.40
Democracy to Dictator	1.418	0.000 **	5.03
Percent Democracies	3.807	0.000 **	4.79
Openness	0.009	0.000 **	4.08
Transitions to Democracy	1.152	0.000 **	3.98
Age Squared	-0.0001	0.034 **	-2.13
Transitions Squared	-0.064	0.000 **	-3.72
Number of observations:	293		
Adjusted R^2	0.832		
Avg # obs per country	3.9		
F-test on fixed effects	F(77,213) = 3.53	P-value = 0.000	

FGLS regression with the region of Oceania in the auxiliary regression.
The dependent variable is the natural log of inflation.
** indicates significance at 5%.

The statistically significant independent variables are (i) Institutions, (ii) Age, (iii) Democracy to Dictator, (iv) Percent Democracies, (v) Openness, and (vi) Transitions to Democracy. The squared terms have no a priori implication for inclusion in the regression; they simply corrected the original failing of the Respecification Error Test (RESET) developed by Ramsey [1969]. It can easily be shown that if the residuals are a function of quadratic

determinants used to model the mean (sometimes known as omitted variables), the estimators will be biased [Spanos, 1986; Patterson, 2000]. Below I state the definitions of these variables, the implications of the coefficient estimates, and possible explanations for these estimates. It must be warned that the explanations given for the estimated influence of the political variables on inflation are highly subjective and incomplete. Research on the political economy of inflation is beyond the scope of this paper.

(i) **Institutions**: Classification of political regimes in which democracies are distinguished by the type of executive. This variable is coded 0 if dictatorship, 1 if parliamentary democracy, 2 if mixed democracy, 3 if presidential democracy. Transition years are coded as the regime that emerges in that year.

The positive coefficient on Institutions implies that as a country becomes more democratic, inflation increases. One explanation may be that democracies are breeding places for special interest groups who make competing demands for shares of the economy, and together these shares are greater than the economy's total product. This excess demand may be inflation generating [Hirsch, 1978].

(ii) **Age:** Age in years of the current regime.

This correlation is positive over the observation range and implies that the longer a current regime is in power, the higher the inflation of that country. The reason for this positive influence may be that the longer a regime is in power, the more vulnerable it may feel and the government may not be able to resist from caving in to social pressures and will increase the money supply to boost short term output [Kirshner, 2001].

(iii) **Democracy to Dictator:** Dummy variable coded 1 for a year in which a dictatorship

follows a democracy, 0 otherwise.

The positive coefficient on Democracy to Dictator implies that there is higher inflation in the years following a transition from a democracy to a dictatorship. Given that (i) implies that a democracy has higher inflation than a dictatorship, the reason for this positive correlation may seem a puzzle. Arguably in such a regime change there may be a decrease in output and a transitory increase in inflation. It could also be argued that prices rise due to the uncertainty surrounding the policy of the dictator, or that the dictator increased the stock of money by decree to quickly generate revenue.

(iv) **Percent Democracies:** Percentage of democratic regimes in the current year (other than the regime under consideration) in the world.

The positive coefficient on Percent Democracies implies that the greater the percentage of democracies in the world, the higher is inflation in the country under consideration, and as democracies have higher inflation rates as shown in (i), this phenomena may simply be representative of spillover effects from the democratic countries.

(v) **Openness:** The sum of exports and imports divided by GDP.

Openness implies that the more a country is involved in trade, the higher the inflation in that country. My explanation for this result is simply descriptive and is based on previous results. If dictatorships have lower inflation, as indicated by the positive relation of Institutions, and if dictatorships are less open than democracies, then we would expect a positive relationship between openness and inflation. On the other hand, at first glance, this result does contradict the general conclusion reached by Romer [1993].

Romer's conclusion is based on the theory that countries with coordinated monetary policies act as a single, less open economy. A less open economy reduces the harm of real

depreciation caused by surprise monetary expansion and raises inflation. Romer's empirical work shows a statistically significant negative relationship between openness and inflation for a broad set of countries. Once mean heterogeneity is controlled for and separate regressions run for different regions and developed nations, this correlation disappears. In fact, when taking into consideration the standard errors of the parameters, a 95% confidence interval would actually include sizeable positive values of the parameters. Given that my data set differs from Romer's, a positive relationship in this case may not totally be in conflict with previous studies.

(vi) **Transitions to Democracy:** The sum of past transitions to democracy in a country.

The correlation is positive over the observation range and could be explained with the same stability-type argument as in (iii). This result could also hinge on a time horizon argument following a political business cycle rationale [Nordhaus, 1975; Allen, 1986]. In essence, governments with short time horizons may increase the money stock in the short run to increase the likelihood of re-election [Kirshner, 2001].

In general, democratic governments have higher inflation as well as countries that practice more liberal trade policies. Extreme regime transitioning from democratic to authoritarian rule adds to inflationary pressures on the one hand; but countries with regimes that stay in power for extended periods and countries whose governmental regimes transition frequently also adds to inflation.

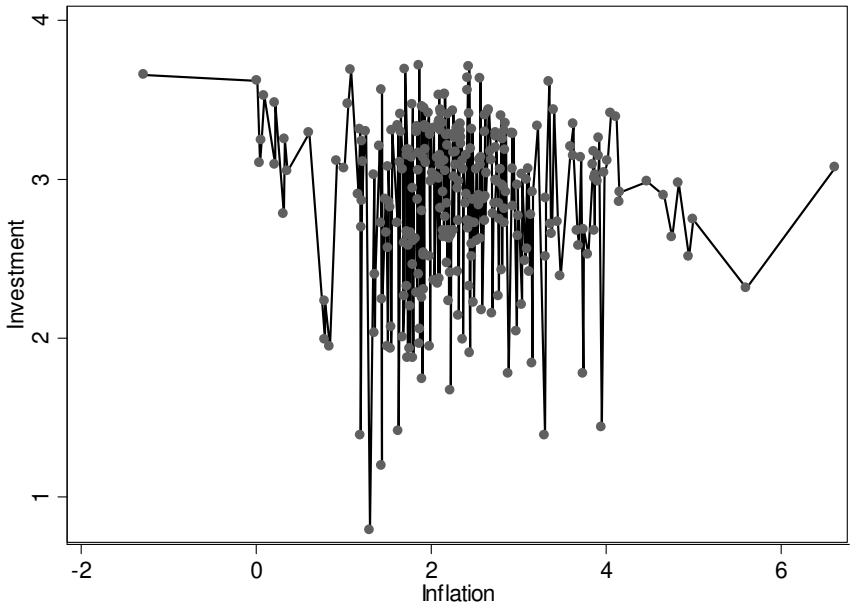
It is important to recognize that these six political variables, including the fixed effects, account for over 83% of the variation in inflation. When I run a standard regression on only the political variables not including the fixed effects, the adjusted R^2 is still 0.78. We must be cautious with this result because the calculation of the adjusted R^2 assumes a constant mean, yet the implication here remains that the political variables explain a good portion of the variation in

inflation. This is important because it is these estimates of inflation that I use below for the instrument in the investment regressions.

4. Investment and Inflation: The Initial Plot

As noted in the previous section, over 83% of inflation can be explained by governmental characteristics and country specific effects. This implies that the endogeneity problem between inflation and investment can be remedied by estimating the natural log of the investment to GDP ratio on the estimates of the natural log of inflation attained from the above regression (of course, formal testing is still needed to determine whether the instrument is truly exogenous and will be addressed in the next section). As a preliminary exercise, I explore this relationship graphically. Figure A plots the natural log of the investment to GDP ratio on the estimated natural log of inflation from the regression in Table 1.

Figure A: Uncropped Panel Data



A general pattern emerges where there is a slight negative correlation on the front and back of the figure, with the center seeming to have a quadratic form. Dropping the countries with observations that could be deemed as outliers makes these features stand out, and also avoids the criticisms made earlier.

The determination of which observations can be considered as outliers is purely subjective on my part. Davies and Gather [1993] even state that there is no precise definition for an outlier. They go on to state that the ". . . outlier identification problem is not to determine which, if any, observations are contaminants but rather to specify those observations that lie in a particular region." In the context of this paper the region under consideration is the region within which the observations could obviously be driving a particular result in both a panel and a time-averaged cross-section plot. It is important to remember that the purpose of this study is to search the data for systematic components that were overlooked by previous authors. The results below can only tell the story of the inflation/investment relationship within the resulting group of countries that have inflation rates within a particular range. Figure B is the cropped panel data while Figure C is a plot of the same countries as in B but averaged over time to reduce any likely business cycle effects.

Figure B: Cropped Panel Data

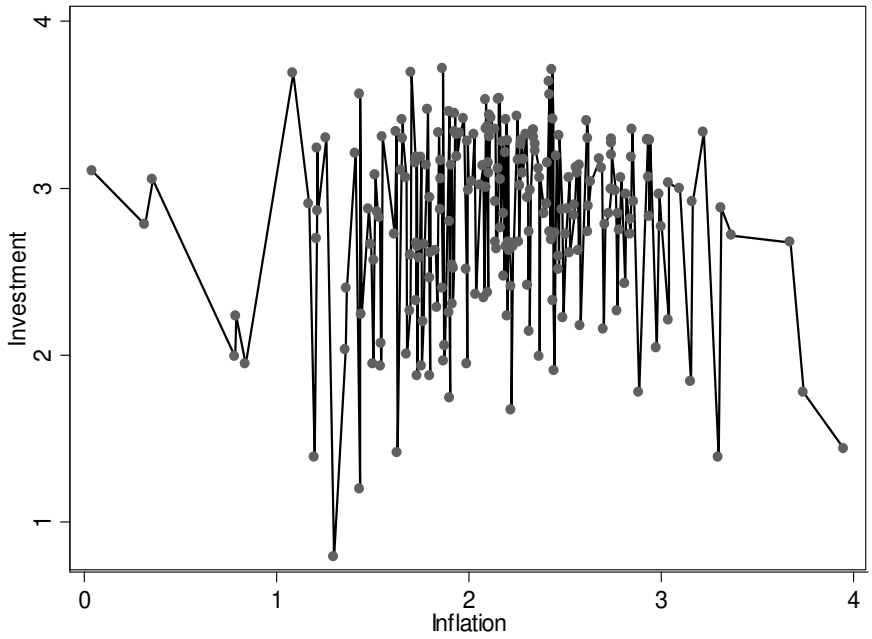
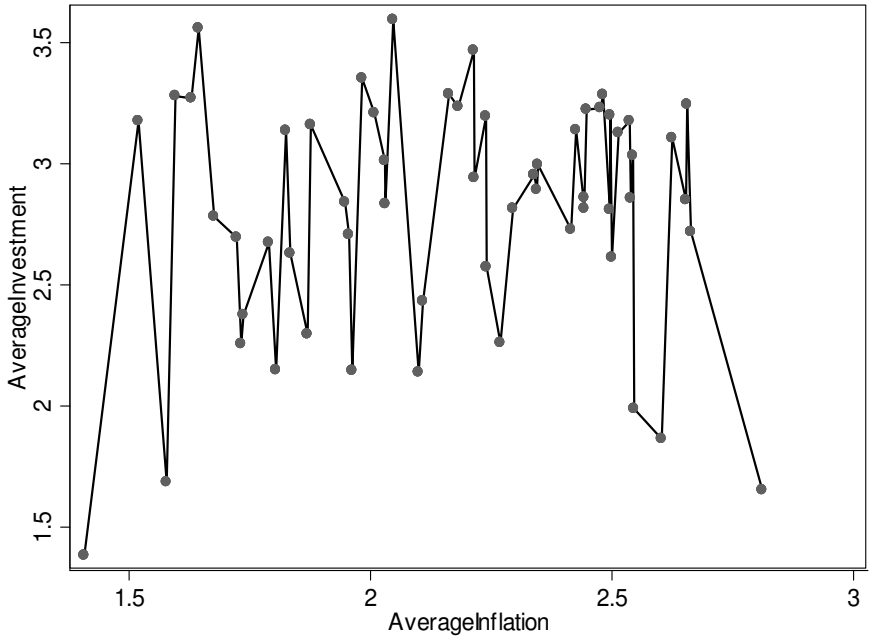


Figure C: Cropped Cross-Section Data



In Figure B, we see that an obvious non linear pattern emerges where there is an inflation rate (or range of inflation) that maximizes investment. Figure C supports the claim that the non-linear pattern is maintained even over a 15 year span. This is probably the most exciting discovery for several reasons. The first is that business cycles in the 1970's and 1980's were much shorter than recently; the 15 year average probably does a sufficient job in eliminating these effects. Second, the contemporaneous observations from Figure B may be capturing feedback from investment to many of the political variables that make up the CPI variable. Consequently, by averaging over longer periods, it seems a reasonable conclusion that many of these effects would decrease in significance. To support these claims, I next extend my analysis econometrically.

5. Investment and Inflation: The Estimates

The first regression I run is a simple one of the natural log of the investment to GDP ratio on the estimated natural log of inflation using the data that constructed Figure A. I do not use a within regression method as I did with inflation because with country-specific effects captured in the inflation estimates, it is not needed--I do include regional effects that are common to the literature (i.e., North America, South America, Africa, Europe, Oceania, and Asia).

Table 1: Estimates of uncropped data

	Panel Model		Cross-section Model	
Variables	Coefficients	P-values	Coefficients	P-values
Inflation	-0.038	0.176	-0.043	0.480
North America	-0.202	0.034 **	-0.212	0.215
Oceania	0.306	0.063 *	0.299	0.314
Europe	0.317	0.000 **	0.314	0.055 *
Africa	-0.489	0.000 **	-0.500	0.004 **
Asia	-0.029	0.759	-0.036	0.834
Constant	3.020	0.000 **	3.039	0.000 **
No. of Obs.	293		76	
Adjusted R^2	0.327		0.364	

The dependent variable is the natural log of the investment to GDP ratio.
South America is the control group.
* indicates significance at 10%
**indicates significance at 5%

What we find above is the typical negative correlation that other authors get when regressing investment on inflation (Barro [1996] gets an estimate of -0.059 when using lagged inflation as an instrument, and -0.044 when using prior colonial status as an instrument). Viewing Figure A once more, and taking into consideration the estimates above, it is reasonable to assume that the 'front' and 'back' observations are negatively correlated with investment, and therefore, I drop the corresponding countries from the data set and proceed to respecify the model (this model is estimating Figures B and C). I correct the misspecification of this model by checking for possible non-linearities in the data, and also perform FGLS regressions to account for heterogeneity in the conditional variance as I did above for the inflation regression (the regions of Africa and Oceania were included in the auxiliary regression of the FGLS system for

the panel model; no regional heterogeneity was found in the cross-section case). The results are below.

Table 2: Estimates of cropped data

	Panel Model		Cross-section Model	
Variables	1	2	3	4
Inflation	0.495 ** (0.000)	2.190 ** (0.000)	0.061 (0.759)	5.880 ** (0.009)
Inflation Squared		-0.599 ** (0.000)		-1.371 ** (0.008)
North America	-2.237 (0.493)	-4.756 ** (0.001)	-0.321 * (0.063)	-0.358 * (0.058)
Oceania	33.113 ** (0.000)	20.463 ** (0.000)	0.262 ** (0.042)	0.209 * (0.058)
Europe	6.599 ** (0.030)	3.259 ** (0.001)	0.262 ** (0.013)	0.283 ** (0.022)
Africa	-14.641 ** (0.000)	-13.110 ** (0.000)	-0.520 ** (0.003)	-0.487 ** (0.003)
Asia	0.752 (0.808)	-3.313 ** (0.009)	-0.183 (0.186)	-0.221 (0.188)
Constant	24.055 ** (0.000)	17.067 ** (0.000)	2.839 ** (0.000)	-3.162 (0.178)
No. of Obs.	225	225	58	58
Adjusted R^2	0.789	0.954	0.418	0.522

The dependent variable is the natural log of the investment to GDP ratio.
South America is the control group.
Estimated using Huber/White robust errors to correct for heteroskedasticity.
* indicates significance at 10%
**indicates significance at 5%

The first thing that should be noticed from table 2 is that adding the squared inflation term greatly improved the fit of the model. According to models 2 and 4, we find that the Mundell-Tobin effect may be a valid explanation for inflation rates from approximately 1 to 6%

and 5% to 9% respectively; after that the relationship reverses. The reversing of this relationship indicates that the costs of inflation must outweigh the benefits from the Mundell-Tobin effect. The results from models 2 and 4 do differ quite dramatically in terms of the function's estimated optimum--6% versus 9%. In light of this dichotomy, several statistical issues should be addressed.

The first issue hinges on the possibility that the political instruments for inflation may not be totally correcting for the endogeneity bias at least in the panel data model where each observation of estimated inflation is matched with a contemporaneous observation of investment. Setting aside the fact that the literature has also used similar forms of the statistically significant political variables as instruments for inflation in one study or another, in deciding whether these variables are truly exogenous I proceed to test the possibility of feedback.

To test whether there remains an endogeneity problem, I ran a Durbin-Wu-Hausmann (DWH) test using the regional effects as instruments for estimated inflation [see Davidson and MacKinnen, 1993, pgs. 237-242]. The first stage of this test is to run a regression of the *estimated* inflation on the regional effects which are known to be exogenous then estimate the residuals. This effectively separates the exogenous part of inflation from the endogenous part--although imperfectly because it assumes that all of the exogenous information can be captured in the exogenous regional effects; having a lack of truly exogenous variables from which to draw, this is the best I can do. I then plug residuals back into the original regression and test their significance.

According to the DWH test, the p-value returned for the null hypothesis of our inflation instrument being truly exogenous was 0.001 and 0.683 for the panel and cross-section models respectively. According to the DWH test, the cross-section model is the more legitimate model.

The feedback from investment to inflation in the panel case can be easily explained as a business cycle phenomena whereby autonomous increases in levels of investment lead to contemporaneous increases in aggregate demand and therefore increases in short-run prices. Whatever the reasoning, the more interesting result remains the longer-run relationship between investment and inflation of which the cross-section model is the legitimate source of this correlation.

A second problem that may be influencing the estimated optimum of inflation's functional form could arise if the parameters themselves are not stable over the observation set. Since I have already controlled for country and regionally-specific fixed effects, an atypical approach to testing this misspecification problem must be taken.

The standard approach used often in time series work would be to run a Hansen [1992] test for parametric stability of both the mean coefficients as well as the conditional variance, however, a coherent ordering of the data would be required. The ordering I chose is by regions. Ordering by regions can expose possible parametric instability in the slope coefficients even if the intercept is allowed to vary by region. The test statistics returned for coefficient stability in the linear and non-linear inflation estimators as well as the conditional variance respectively are 0.095, 0.194, 0.523 for the panel model, and 0.164, 0.096, and 0.254 for the cross-section model. The 5% cutoff for the null hypothesis of stable parameters for these statistics is approximately 0.50 indicating that the null of stable parameters is upheld for all except the conditional variance in the panel case which borderline fails the hypothesis test.

A third bone of contention that may arise is that there could be theoretically omitted variables that are correlated with both investment and inflation. I contend that this is definitely a possibility if (1) we were directly considering inflation where in this study we are actually

considering inflation's instruments--i.e., in essence a completely different variable from inflation itself, or (2) I didn't voice the intention at the outset that the only relevant relationship in the context of this paper is the bivariate relationship between investment and inflation. In fact, I would argue that in every regression run in the history of economics (or, for that matter, any other field that uses non-experimental data) there will always be some variable that could theoretically be considered as an omitted variable. Having said this, at least with regard to the cross-section specification, the model appears to be statistically adequate and adheres to the standard probabilistic assumptions that fall from OLS estimation. To this end, given the stated problems above, the only model I will interpret with any valid inference in order to reduce the arguments of the naysayer will be the cross-sectional model.

6. Conclusion:

The purpose of this paper was to implement a broader set of political stability variables as instruments for inflation. With the limited set of instruments currently in use, a correlation between inflation and investment has been non-existent across low inflation countries.

By using a set of 39 political variables, I have found that 7 can account for nearly 80% of the variation in inflation. While the explanations of the estimates of these variables are speculative, the explanations make intuitive sense. Democratic governments have higher inflation as well as countries that practice more liberal trade policies. Extreme regime transitioning from democratic to authoritarian rule adds to inflationary pressures on the one hand; but on the other hand, countries with regimes that stay in power for extended periods as well as countries whose governmental regimes transition frequently also adds to inflation.

By using estimated inflation determined by these 7 political variables, I plotted the

natural log of the investment to GDP ratio on the estimated natural log of inflation for an initial assessment of the correlation between the two. What I found was that there are obvious non-linear patterns in the data with areas of positive correlation. Econometrically, I have found that for inflation rates from approximately 1 % to 6 % in the contemporaneous panel case, and 5% to 9% in the cross-section case, investment is positively correlated with inflation. Regarding these results a caveat is justified.

We must remember that one of the purposes of this study was to delve more deeply into the standard data in order to search for some sort of statistically significant relationship between inflation and investment in relatively low inflation countries--a relationship that has yet to be found. Whether the reader agrees with the methodology used in this study especially with regard to the 'data mining' that occurred by subjectively dropping the front and back outliers of Figure A, he/she should not negate the fact that among the remaining 58 countries there exists a significant positive correlation from 5% to 9% inflation. While this study cannot say much with regard to the 18 countries that were dropped, or the many countries that were never even included in the data set, if the policymakers of these 58 countries got together to explore common inflation targeting, maybe the proper target should be moderate levels of inflation rather than the current policy of low inflation based on ad hoc or non-existant empirical relationships.

Further areas of research regarding this issue should focus less on developing versus developed country relationships, and correlations that are broad enough to appeal to policy makers from many countries, and focus more on the transitioning areas of positive to negative investment/inflation relationships. From this, research could possibly start to address the structural differences in economies and politics that may generate these transitions.

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Appendix

76 Country List		
ALGERIA	*NICARAGUA	*SINGAPORE
BURKINA FASO	*PANAMA	SRI LANKA
BURUNDI	TRINIDAD&TOBAGO	SYRIA
CAMEROON	U.S.A.	THAILAND
CONGO	*ARGENTINA	AUSTRIA
GABON	*BOLIVIA	BELGIUM
GAMBIA	*BRAZIL	*CZECHOSLOVAKIA
GHANA	*CHILE	DENMARK
IVORY COAST	*COLOMBIA	FINLAND
KENYA	ECUADOR	FRANCE
MOROCCO	PARAGUAY	GREECE
NIGERIA	PERU	*ICELAND
RWANDA	*URUGUAY	IRELAND
SOUTH AFRICA	VENEZUELA	ITALY
TOGO	*CHINA	LUXEMBOURG
TUNISIA	INDIA	NETHERLANDS
ZAMBIA	INDONESIA	NORWAY
ZIMBABWE	IRAN	PORTUGAL
CANADA	*ISRAEL	SPAIN
COSTA RICA	JAPAN	SWEDEN
DOMINICAN REP.	JORDAN	*TURKEY
EL SALVADOR	KOREA, REP.	U.K.
GUATEMALA	*MALAYSIA	*YUGOSLAVIA
HONDURAS	PAKISTAN	AUSTRALIA
*JAMAICA	PHILIPPINES	NEW ZEALAND
*MEXICO		
Note: The asterisk marks those countries that are NOT in the 58 country sample.		