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ECONOMIC REFORMS, DEMOCRACY AND GROWTH IN EASTERN EUROPE AND EURASIA

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Economic Reforms, Democracy and Growth in Eastern Europe and Eurasia

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Abstract: This research analyses the interaction between economic reforms, democratic reforms, and economic growth. One of the salient characteristics of the transition region has been two very distinct patterns between economic and democratic reforms: convergence of the two reform dimensions in the CEE countries and divergence in Eurasia. Nevertheless, results from econometric tests (which attempt to control for possible intervening influences) suggest that economic and democratic reforms are mutually reinforcing throughout the region, even in Eurasia. We also found evidence that: (1) economic reforms have a stronger impact on democratic reforms than the reverse; (2) economic reforms favorably affect economic growth; (3) democratic reforms favorably affect economic growth indirectly (via economic reforms) if not directly; and (4) while the feedback effects from economic growth to reforms are more ambiguous, there is some evidence that economic growth may actually stifle democratic reforms, and/or economic contraction may facilitate democratization.

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Summary. This research focuses on the interaction between economic reforms, democratic reforms, and economic growth in the transition region. Are economic and democratic reforms mutually supportive? Is one reform dimension more important than the other? Does the empirical evidence provide a clue as to the appropriate reform sequencing? Does one set of reforms have a greater beneficial impact on economic growth and performance than the other? Does the interaction between economic and democratic reforms notably vary by sub-region and/or by country?

To attempt to address these questions, we analyze: (1) a cross-country "snapshot" of economic and democratic reforms; (2) country-specific time series of the transition reform paths in economic and democratic reforms in each of the twenty-seven transition countries from 1989-2004; (3) time-series trends aggregated by the three primary sub-regions (the Northern Tier CEE countries, the Southern Tier CEE, and Eurasia); and (4) the relationships econometrically, in part to see how the two-dimensional, two-indicator visuals of the preceding analyses "square" with multi-indicator analyses.

We also consider how economic and democratic reforms might affect economic growth (and vice-verse) in the econometric analyses. To what extent do the two reform dimensions contribute towards economic growth and how, directly and/or indirectly, positively or negatively? Does the performance of the economy feed back towards the pace of reforms and, if so, how?

Both linear and non-linear best-fit trend lines of a 27 country scatterplot provide support for the contention that the two reform dimensions are positively linked. However, time-series trends show two distinct patterns among the countries, differentiated almost exclusively by the familiar CEE-Eurasia "fault line." That is, all the CEE countries show a pattern of economic and democratic reforms advancing together tending towards convergence, while all but one of Eurasian countries (as of 2004) show a trend of reform divergence. The salient exception is Ukraine where the "Orange Revolution" resulted in very recent democratization gains. Even in Georgia (and it's "Rose Revolution" notwithstanding), democratization backsliding continued, at least through the end-2004 (latest data available).

When we tested econometrically (and complemented our findings with the empirical literature) we found evidence that: (1) economic and democratic reforms are mutually reinforcing in the transition region; (2) even in Eurasia (despite economic and democratic reform divergence there); (3) economic reforms may have a stronger impact on democratic reforms than the reverse; (4) economic reforms favorably affect economic growth; (5) democratic reforms favorably affect economic growth indirectly (via economic reforms) if not directly; and (6) while the feedback effects from economic growth to reforms are more ambiguous, there is some evidence that economic growth may actually stifle democratic reforms, and/or economic contraction may facilitate democratization.

Introduction and Methodology. How have economic and democratic reforms interacted in the transition region, and how have both reform dimensions interacted with economic growth? Can we make some generalizations? Is progress on both reform dimensions mutually supportive; do they work hand-in-hand? In addition, is one set of reforms in some sense more important than the other? For example, does the evidence provide a clue as to the proper sequencing of economic and democratic reforms; should one come before the other? Does one set of reforms have a greater beneficial impact on economic growth and performance than the other?

Divergent trends on several dimensions between transition sub-regions continue to characterize the transition. Does the interaction between economic and democratic reforms also notably vary by sub-region and/or by country?

To attempt to address these questions, we do the following. We first look at a cross-country "snapshot" of economic and democratic reforms. Underlying this examination is the assumption that we can draw conclusions over time from cross-country data, and more specifically that countries further along the transition reform path represent the future of countries which are lagging.

Next we look at country-specific time series of the transition reform paths in economic and democratic reforms in each of the twenty-seven transition countries from 1989-2004. Then we look at time-series trends aggregated by the three primary sub-regions: the Northern Tier CEE countries; the Southern Tier CEE; and Eurasia. Finally, we test the relationships econometrically, in part to see how the two-dimensional, two-indicator visuals of the preceding analyses "square" with multi-indicator analyses. Does controlling for other variables significantly change the findings?

We also consider how economic and democratic reforms might affect economic growth (and vice-verse) in the econometric analyses. To what extent do the two reform dimensions contribute towards economic growth and how, directly and/or indirectly, positively or negatively? Does the performance of the economy feed back towards the pace of reforms and, if so, how?

The economic and democratic reform data are drawn from the E&E Bureau's *Monitoring Country Progress* (MCP) system.[1] In this MCP system, we've developed two reform indices: economic reforms consist of nine EBRD indicators; democratic reforms consist of six Freedom House indicators.[2] Most of the control indicators used in the econometric

[1] See *Monitoring Country Progress in Central and Eastern Europe & Eurasia* #9 (April 2005).

[2] The economic reform indicators are: (1) price liberalization; (2) trade and foreign exchange liberalization; (3) small-scale privatization; (4) large-scale privatization; (5) enterprise governance reforms; (6) competition policy; (7) bank reforms; (8) non-bank financial reforms; and (9) infrastructure reforms. The democratic reform indicators are: (1) electoral process; (2) civil society development; (3) independent media; (4) anti-corruption measures; (5) rule of law; and (6) public governance. The economic reform data are from the EBRD's annual *Transition Report*. The democratic reform indicators are drawn from Freedom House's annual *Nations in Tranisit*; these data began in 1996. For democratic reform indicators from 1989-1995, we drew from Freedom House's annual *Freedom in the World*, and used its political rights and civil

analyses are also drawn from the MCP dataset, which in turn draws primarily from World Bank and UN (UNICEF and UNDP) sources.

Findings. (1) We first examine ***cross-country snapshots*** of economic and democratic reforms in 2004, assessing both linear and non-linear "best fit" trend lines. [3]

(a) A ***linear best-fit trend line of a cross-country scatterplot*** provides support for the contention that the two reform dimensions are positively linked; i.e. those countries with the greatest progress in one reform dimension also have made the greatest progress in the other reform dimension; those countries which are lagging the most in economic reforms are also generally lagging the most in democratic reforms (*Figure 1*). Of the three transition sub-regions, the best-fit and fewest outliers are found in the Northern Tier CEE. Of all the transition countries, the primary outliers are Turkmenistan, Kazakhstan, and Kyrgyzstan (in Eurasia), and Montenegro (in the Southern Tier CEE).

(b) A ***nonlinear best-fit trend line of a cross-country scatterplot*** looks very similar to the linear best-fit, and hence provides further support to the contention that both reform dimensions are positively linked and mutually reinforcing (*Figure 2*). However, the data suggest a decidedly different story when one separates the CEE countries from Eurasia (*Figure 3*). In particular, one finds close to a linear fit in the CEE countries, but much more evidence of a nonlinear relationship between economic and democratic reforms in Eurasia. This shows that the Eurasian laggards are relatively farther along on economic reforms than democratization, and that in the case of the Eurasian leaders, particularly Ukraine, progress across both reform dimensions is much more balanced. As will be shown below, one cannot assume that these cross-country data reveal time series trends; that they show a reform path in Eurasia. Such an assumption would lead one to conclude that progress in economic reforms in Eurasia has generally preceded democratic reform progress earlier on in the transition, while the reverse has taken place later on, i.e., with democratic reforms moving forward more than economic reforms in more recent transition years. Time series trends below show just the reverse.

(2) ***Time series trends by sub-regions*** show two distinct patterns. In the Northern Tier and Southern Tier CEE, economic and democratic reforms are generally advancing together (*Figures 4* and *5*). Democratic reforms have been farther along in both sub-regions, though economic reforms are catching up, and in the case of the Southern Tier CEE, convergence has occurred.

The pattern in Eurasia is very different (*Figure 6*). Democratic reforms were farther along than economic reforms in the early part of the transition in Eurasia. However, by the mid-1990s economic reform progress matched democratic reform progress and since

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liberties indices. Both democratic reform series as well as the economic reform indicators were converted to scores, ranging from "1" to "5", where "5" represents the most advanced performance.

[3] The cross-country scatterplots include 29 entities which consist of 27 transition countries but disaggregating one of them, Serbia-Montenegro, into its three primary entities: Serbia; Montenegro; and Kosovo.

then economic reforms have continued to advance while democratic reforms have regressed. Divergence, in other words, in the two reform dimensions has been the salient trend since 1995 in Eurasia.

(3) Regional averages often mask diversity in country experiences. However, in this analysis, there are very few exceptions to the sub-regional trends. An analysis of the ***country-specific trends over time*** reveals the following country classifications into one of two groups. The *Appendix* shows the country-specific charts.

The ***reform convergence countries*** (i.e., those countries where economic and democratic reforms have been advancing together tending towards convergence) includes all the Northern Tier CEE countries (though some of these countries have exhibited little movement forward on democratic reforms in more recent years given their proximity to a "ceiling" in such reforms): Slovenia; Slovakia; Poland; Lithuania; Latvia; Hungary; Estonia; and the Czech Republic (*Appendix Figures 1-8*). This group also includes all the Southern Tier CEE countries, though in some cases the positive relationship between economic and democratic reforms didn't begin until war ended and/or authoritarian leaders left: Serbia and Montenegro (from 2000); Romania; Macedonia; Croatia (from 1999); Bulgaria; Bosnia-Herzegovina (particularly from 1995); and Albania (*Appendix Figures 9-15*). The only country in Eurasia that falls into this group (as of end 2004, latest year of available data), is Ukraine (*Appendix Figure 16*). This is due to the very recent turnaround in democratization stemming from to the "Orange Revolution" in Ukraine.

All the Eurasian countries, except Ukraine, fall into the ***reform divergence*** category**.** This includes, perhaps surprisingly, Georgia (where the "Rose Revolution" took place, pre-dating Ukraine's "Orange Revolution," *Appendix Figure 17*). On balance, Freedom House found that democratic backsliding in 2004 (in media and rule of law) outweighed advances in the electoral process and the fight against corruption in Georgia. In addition, much of the Rose Revolution gains in Georgia have so far occurred in the economic reform domain, fiscal reform a salient example.

The potentially promising change in Kyrgyzstan in 2005 (and its so-called "Tulip Revolution") is not yet captured in the data; i.e. through 2004, reform divergence has characterized Kyrgyzstan's reform path (*Appendix Figure 18*). Moldova and Tajikistan had several years of economic and democratic reforms progressing together, from the mid 1990s to the early 2000s (*Appendix Figures 19* and *20*). However, reform divergence has been the more recent trend in both countries. Reform divergence has been the most evident in Russia; Kazakhstan; Belarus; Azerbaijan; Armenia (and Kyrgyzstan) (*Appendix Figures 21-25*). This general trend is also evident in Uzbekistan, and Turkmenistan, though to a lesser extent. In Turkmenistan and Uzbekistan, democratic reforms can hardly deteriorate further while economic reforms have largely stagnated (*Appendix Figures 26* and 27).

(4) ***Econometric analyses***. In this analysis, we examined the inter-relationship between economic reforms and democratic reforms by running econometric tests. One advantage of this technique is that we are able to employ more observations. We did this by using a "panel design," which combines time series observations (for each country, we had up to 16 years of observations, from 1989-2004) with cross-country observations (up to 27 countries). Another key advantage of this statistical technique is that one can at least attempt to isolate the economic and democratic reform inter-relationship by controlling or holding constant other variables that may have an impact on reforms. Finally, one can also try to test how the two reform dimensions interact to affect other variables, such as economic growth in particular. This we also attempt to do.

We were able to draw from an extensive literature of econometric studies. There are many studies which examine impacts of reforms (mostly economic reforms) on economic growth throughout the world, and a subset which is focused on the transition region. One of the most recent transition region specific studies and perhaps the most rigorous is Falcetti, Lysenko, and Sanfey (March 2005). The study that was the most relevant for our focus on the inter-relationship between economic and democratic reforms was Fidrmuc (2003). Both studies also provide a very nice review of the empirical literature and a review of the theory. We draw on both of these studies extensively.

First set of tests: simple regressions. We proceeded with the econometric tests incrementally by level of sophistication. First, we ran simple regressions, that is, we regressed economic reforms and democratic reforms on each other independent of other possible intervening factors. Among this set of tests, we used a data set of the full sample of 27 countries from 1991-2004 to test the economic and democratic reform relationship: (a) simultaneously (i.e. 378 observations); (b) by converting the data into logarithms, i.e. testing a nonlinear best fit trend; and (c) by lagging the independent variable 2 years.

From these tests we found evidence that suggests a mutually reinforcing relationship exists between the two types of reforms for the transition countries overall. *Table 1* and *Figure 7* show the results from regressing economic reforms on democratic reforms, and democratic reforms on economic reforms. Lagging the independent variable from the dependent variable is a rudimentary way to try to get at causality. In the model where we lagged the independent variable by two years, we found evidence that supported the contention that economic reforms have a greater impact on democratic reforms than the reverse. In other words, the economic reform coefficient was higher than the democratic reform coefficient, 0.735 vs. 0.55, respectively. Both were statistically significant.

Second set of tests: using time as an explanatory variable. The second set of tests included a time indicator as an independent variable (*Table 2* and *Figures 9* and *10*). This indicator is used as a first approximation of possible influences other than the independent reform indicator on the dependent reform variable.[4] We regressed each

[4] The form that this time indicator can take is one of three possibilities: (1) linear: i.e., the value of the first year is a "1", the second a "2" etc; (2) quadratic: i.e., two time indicators are used together, linear (T= 1,2,3….) plus nonlinear (t- squared). This allows for external influences which may increase or decrease

reform indicator on the other with a time indicator for the full sample, and then did the same but using dummy variables to segment the 27 countries into the three sub-regions.

We found a stronger positive relationship between the two reform indicators when time is included; i.e., much higher coefficients and much higher R squares (than in the first set of tests). The economic reform coefficient was higher (1.12) than the democratic reform coefficient (0.518), consistent with the argument that there is a stronger link from economic reforms to democratic reforms than the reverse. Perhaps most striking, we also found a much different result when time is included in the regressions disaggregated by sub-region; namely, positive coefficients for all the independent reform indicators in each of the three sub-regions (not just the Northern Tier CEE group). Moreover, the highest coefficients and strongest relationships were found in the Southern Tier CEE followed by Eurasia and distantly in the Northern Tier CEE. This suggests that the two reforms are mutually reinforcing in all three sub-regions, including Eurasia (notwithstanding the inverse relationships shown in the two-dimensional charts).[5]

Third set of tests: taking stock of other influences and indirect effects. *Table 3* summarizes the specifications of the next set of regressions and *Tables 4-6* and *Figures 11-14* the results. Three basic regressions were developed and tested for four data sets: (1) the full sample of 27 countries; (2) the Northern Tier CEE countries; (3) Southern Tier CEE and (4) Eurasia. Each data set was a panel design, i.e. cross-country observations were combined with annual time series, from 1989-2004.

The three basic regressions were:

(1) *democratic reforms* (at time t) regressed on democratic reforms three years prior (t-3), economic reforms three years prior, economic growth one year prior, GDP per capita in 1990, a dummy variable to account for war years, and a dummy variable for time;

(2) *economic reforms* (at time t) regressed on economic reforms three years prior, democratic reforms three years prior, economic growth one year prior, GDP per capita in 1990, a dummy variable to account for war years, a dummy variable for time; and

(3) *economic growth* regressed on democratic reforms three years prior, economic reforms three years prior, GDP per capita 1990, war, time, education (secondary school enrollment), and macro-economic stability (the inflation rate).

We include a lag of the dependent variable in the case of the economic and democratic reform regressions because of the recognition that progress of such reforms in the past is likely to be a good predictor of today's progress. The historical constraints which led a country to have a given level of reform in recent years are generally still in place and

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over time; and (3) a dummy variable for each year. In this set of regressions, we used the linear time indicator.

[5] The relatively low albeit positive Northern Tier CEE coefficients reflect little change in the democratic reform indicator by mid-1990s, which in turn is a reflection that democratization had approached a "ceiling" by then in most of these countries.

impacting the current level of reform. However, if we see reform gains in a given year, we might expect reforms to continue to move forward over the next few years perhaps because previous constraints have been mitigated or removed.

How long should the independent variables be lagged? We reasoned that reforms might likely take 3 years to disseminate through society and change conditions such that more reforms are enacted. Our regressions are run with this three year lag assumption. Our sense is that the effects of GDP growth on reform occur more quickly and consequently we only lag GDP growth by one year.[6]

GDP per capita in 1990 is included as a proxy for "initial conditions." Initial conditions can impart a significant, though perhaps a diminishing impact over time on the progress of reforms and the pace of economic growth. Another initial and in fact unchanging condition is geography. A country's location can and does have a profound impact on the pace of transition and development. One indicator that has been used for this purpose is the "distance from Brussels;" the farther away from Brussels arguably the greater the obstacles to reform. We tried this indicator in earlier tests, though ultimately went with an arguably more straightforward method of disaggregating the full sample into the three key sub-regions.

Whether a country is at war or peace should obviously play a significant role in whether reforms are moving forward and economic output is expanding. We used a dummy variable to try to capture these dynamics. The value of this indicator was "1" for the years for which a country was at war; "0" otherwise.[7]

A time indicator is used to capture other residual effects on the dependent variable that may not otherwise be explicitly part of the model. In these series of regressions, we measured time by using a dummy variable.[8] As a crude sensitivity analysis (as shown in *Tables 4-6*), we ran regressions with the time indicator and without the time indicator to test the robustness of the results. If the findings changed dramatically between the two specifications (as they sometimes did), little credibility can be given to the reports that stem from either specification.

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[6] It is also possible to empirically test for what might be an appropriate lag. To do this, we put multiple lags (one, two and three years) in the right hand side of the equation and looked for the lag which has the highest statistical significance. These tests were largely inconclusive and suggested that the reforms of multiple lags had influence on current levels. Given the ambiguity of the empirical tests, we based our lags on our reason or intuition.

[7] War observations included: (1) Croatia in 1991 and 1992; (2) Bosnia-Herzegovina in 1992-1995; (3) Serbia and Montenegro in 1991-1995 and 1998-1999; (4) Macedonia in 2001; (5) Georgia in 1989-1993; (6) Azerbaijan, 1991-1994; (7) Armenia, 1991-1994; (8) Moldova in 1991; and (9) Tajikistan, 1992-1996.

[8] Using a yearly dummy for time rather than as a linear or quadratic variable allows for a less rigid assumption regarding those exogenous influences intended to be captured by the time indicator. A linear time indicator assumes that these exogenous influences will be identical year after year. In contrast, a yearly dummy allows the intercept of the regression equation to be different in each year (perhaps rising in good years and then falling in world crisis years) without imposing the assumption that the year-to-year changes are all the same. Thanks to Professor J. Schaffner of the Fletcher School at Tufts University for advice on this econometric matter as well as on a number of others.

The economic growth equation (*Table 6*) included two more explanatory variables than did the two reform equations. We included a human capital indicator (secondary school enrollment), and an indicator intended to capture macro-economic stability or instability. Two indicators in the literature have been commonly used for the latter: fiscal balances or inflation. We used inflation.

We tried to capture the salient findings in four charts (*Figures 11-14*), corresponding to the four samples. In these, we focused on the inter-relationships between the three key indicators: economic reforms, democratic reforms, and economic growth. We assessed one of four possible outcomes for each relationship for each sample: either the relationship was positive, negative, not statistically significant, or ambiguous. The finding of ambiguity resulted when test results were inconsistent, though not all statistically insignificant.

Overall, we found convincing evidence of a positive relationship between economic and democratic reforms. In six of eight results, the relationship was positive and statistically significant (at the 5% level). Another result showed a positive relationship, but the coefficient was low and statistically insignificant. In another sample, the results were mixed in different model formulations, with both positive and negative coefficients, both statistically insignificant.

The results of the interaction between reforms and growth were more ambiguous. There was evidence that economic reforms have contributed to greater economic growth, in the full sample of 27 countries and separately in the Northern Tier CEE countries. However, the results of this relationship are ambiguous in the case of the Southern Tier CEE and Eurasian countries. There is even less evidence that democratic reforms contribute to greater economic growth. The coefficients show a positive influence of democratic reforms on economic growth in the Northern Tier and Southern Tier CEE samples, but the results are statistically insignificant. The results are mixed in the case of Eurasia, and, in the full sample, the results suggest that democratic reforms adversely affect economic growth.

The results of the effect of economic growth on economic reforms are all statistically insignificant or mixed. However, in 3 of the 4 samples in the case of growth's impact on democratic reforms, the relationship is inverse; i.e. the findings suggest that economic growth has had a negative effect on democratization in the full sample, in the Southern Tier CEE and in Eurasia. (The relationship is positive but statistically insignificant in the case of the Northern Tier CEE).

Other Analyses. Our overall findings are complemented primarily by the two previously mentioned studies, Fidrmuc (2003) and Falcetti et. al.(2005). We drew liberally from Fidrmuc's method of analysis. Fidrmuc proceeds in three primary steps. First, economic growth in the transition countries is regressed on economic reforms, initial per capita income, domestic investment, government expenditure, secondary school enrollment, a dummy variable for countries at war, and a "distance from Western Europe" indicator. No lags were used for the independent variables. Second, a democracy indicator was

added to the model, using Freedom House's civil liberties and political rights indices to create that indicator. Third, Fidrmuc tested for determinants of economic and democratic reforms by alternatively regressing each reform index as a dependent variable on a series of lagged independent variables in step-wise fashion. The indicators were similar to our model. Economic reforms, e.g., were regressed on economic reforms lagged, democracy lagged, economic growth lagged, GNP per capita, a war dummy, years of communist rule, distance from Western Europe, and a dummy variable for the Former Soviet Union. The regressions covered 1990-2000.

Figure 15 shows the key results from Fidrmuc (2003). He finds that while democratic reforms contribute to economic reform gains, results from the reverse causation are ambiguous; it's not clear from his test how economic reforms affect democratic reforms. He finds that economic reforms contribute to greater economic growth, but does not find an unambiguous link between democratic reforms and growth. In terms of the feedback from economic growth to reforms, he finds that economic growth has contributed to democratic reform gains, that economic growth impacts adversely on economic reforms.

A key focus of Fidrmuc's research is how democratization affects economic growth, and whether, as some theory posits, democratization gains could retard economic growth by imposing political constraints to moving forward on economic reforms. He concludes that "the results suggest that democracy reinforces progress in economic liberalization, which, in turn, improves growth. Hence, democratization had a positive effect on growth during transition, albeit indirectly, through facilitating economic liberalization."[9]

It is also worth summarizing key parts of the empirical effort by Falcetti, Lysenko, and Sanfey (2005). Their focus is on determinants of economic growth in the transition region, and the effects that economic reforms have on economic growth. It is the most recent empirical study of its kind, and certainly one of the more sophisticated. In particular, they add three key determinants to economic growth: oil exports; external demand (the economic growth in partner trading countries); and "catch-up" (to account for a "bounce-back" effect of output from earlier transition recessions). They also include in the economic growth model: economic reforms lagged; initial conditions (a composite score); macro-economic stability (fiscal balance); and a time trend. They test simultaneously for growth and economic reform. That is, they also run an economic reform equation, regressing it on growth lagged, time, and democratization (Freedom House's civil liberties index only).

Figure 16 highlights the main results for our purposes. Their primary conclusion and finding is that economic reforms and economic growth favorably affect each other. They conclude that "progress in [economic reform] transition in one period can significantly affect growth in the subsequent period, and this growth can act as an immediate spur to further reform."[10] They also find that progress in civil liberties contributes to gains in economic reforms.

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[9] Fidrmuc (2003), p. 583.
[10] Falcetti, Lysenko, and Sanfey (2005), abstract.

Other studies and assessments which examined the democracy-growth linkages in a broader sample of (primarily developing) countries are worth mentioning briefly. Tavares and Wacziarg (2004) find mixed results regarding democratization's impact on economic growth. They attempt to measure four possible links and conclude that the democracy works positively on growth by lowering income inequality and raising educational achievement, yet adversely affects growth by lowering capital accumulation and raising government spending. Rodrik and Wacziarg (2005) find econometric evidence that democracy lowers economic growth volatility.

Finally, what about economic growth's possible influence on democracy? Is there any support for our tentative findings of an inverse relationship "from" economic growth "to" democracy? There are two ways to interpret this finding. One is that an expanding economy somehow contributes to democratic backsliding; the other is that a contracting economy facilitates or at least "sets the stage" for democratic gains. Rodrick and Wacziarg (2005) find evidence of the latter interpretation. They examined trends in 24 countries that experienced sustained gains in democratization and found a common pattern; namely, a sizable contraction in economic output preceded the gains in democratization.

Bueno de Mesquita and Downs (2005) argue that growing evidence exists regarding the first interpretation; namely that economic growth can actually retard democratization, at least in the short run. Citing China and Russia as prime examples, they argue that "authoritarian regimes around the world are showing that they can reap the benefits of economic development while evading any pressure to relax their political control. [Moreover,] the overlap of these trends—economic growth and shrinking political freedom—is more than a historical curiosity. It points to an ominous and poorly appreciated fact: economic growth, rather than being a force for democratic change in tyrannical states, can sometimes be used to strengthen oppressive regimes…..What explains the often lengthy lag between the onset of economic growth and the emergence of liberal democracy? The answer lies in the growing sophistication of authoritarian governments…Authoritarian regimes are getting better and better at avoiding the political fallout of economic growth—so good, in fact, that such growth now tends to increase rather than decrease their chances of survival." [11]

Summary. What's the sum balance of the findings of all these empirical efforts? (1) economic and democratic reforms are mutually reinforcing in the transition region; (2) even in Eurasia (notwithstanding the economic and democratic reform divergence there); (3) economic reforms may have a stronger impact on democratic reforms than the reverse; (4) economic reforms favorably affect economic growth; (5) democratic reforms probably on balance favorably affect economic growth, though the results are mixed and the indirect channels are numerous; and (6) the feedback effects from economic growth to economic reforms are ambiguous, though there is some evidence that greater economic growth may stifle democratization. (and/or economic contraction may facilitate democratization).

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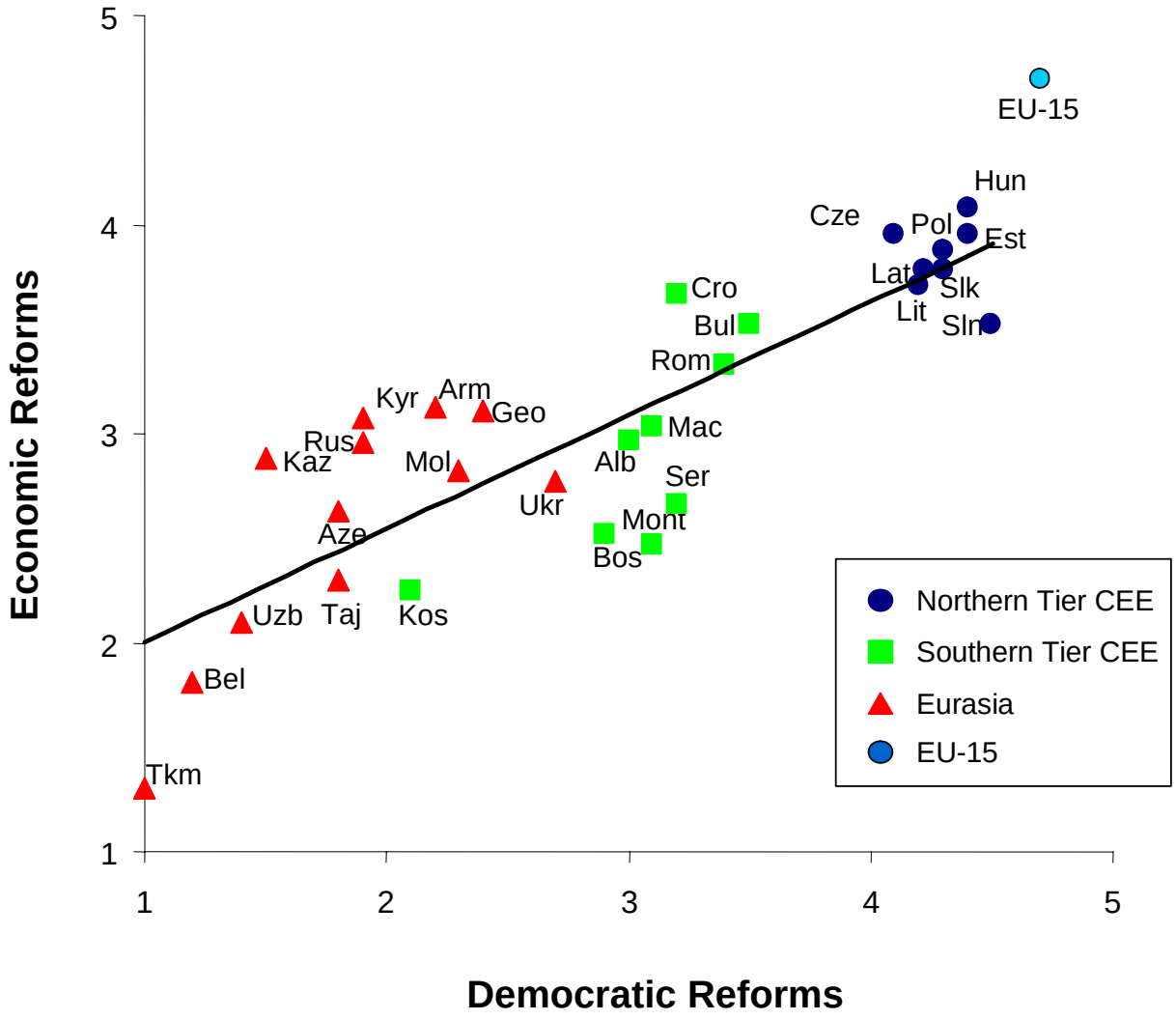
[11] Bruce Bueno de Mesquita and George W. Downs, "Development and Democracy," *Foreign Affairs* Volume 84, no. 5 (September/October 2005), pp. 77-78.

So what. The empirical evidence suggests that both economic and democratic reforms are important, and more so if pursued simultaneously. Each reform dimension, in other words, reinforces the other. Perhaps not surprisingly, economic reforms may be more important towards increasing economic growth. However, economic reforms are largely a means to an end; the end is greater economic growth and ultimately improvements in economic and social well-being. Democratic reforms and freedoms, on the other hand, are both means to an end and an end objective in themselves. Moreover, in autocratic societies in particular, democratization may not come about in the absence of targeted assistance towards democratic reforms, since an emphasis on economic reforms and growth may not be sufficient, at least in the short run, to bring about greater democratic freedoms. Targeting what Bueno de Mesquite and Downs refer to as "coordination goods" (or that subset of public goods that are critical to political coordination but less important for economic cooperation and growth, such as basic civil liberties, human rights, press freedoms, and greater access to higher education) may be key.

Next Steps. It may be instructive to disaggregate the economic and democratic reforms and then a run a series of regressions similar to the above exercises. Will the empirical evidence shed light on which components of each reform dimension are more significant towards promoting gains in further reforms and economic growth? It also may be enlightening to examine the relationships in different time periods, roughly early transition (before democratic reforms in Eurasia starting eroding and while economic output was plummeting) vs. more recent years (after the Russian financial crisis and once economic growth resumes across the sub-regions). Further disaggregating by country type, and in particular, countries which are primary product exporters vs. others, may be instructive. Finally, drawing from the MCP's human capital index and more explicitly incorporating possible impacts of human capital on reforms and growth may shed additional light.

Figure 1

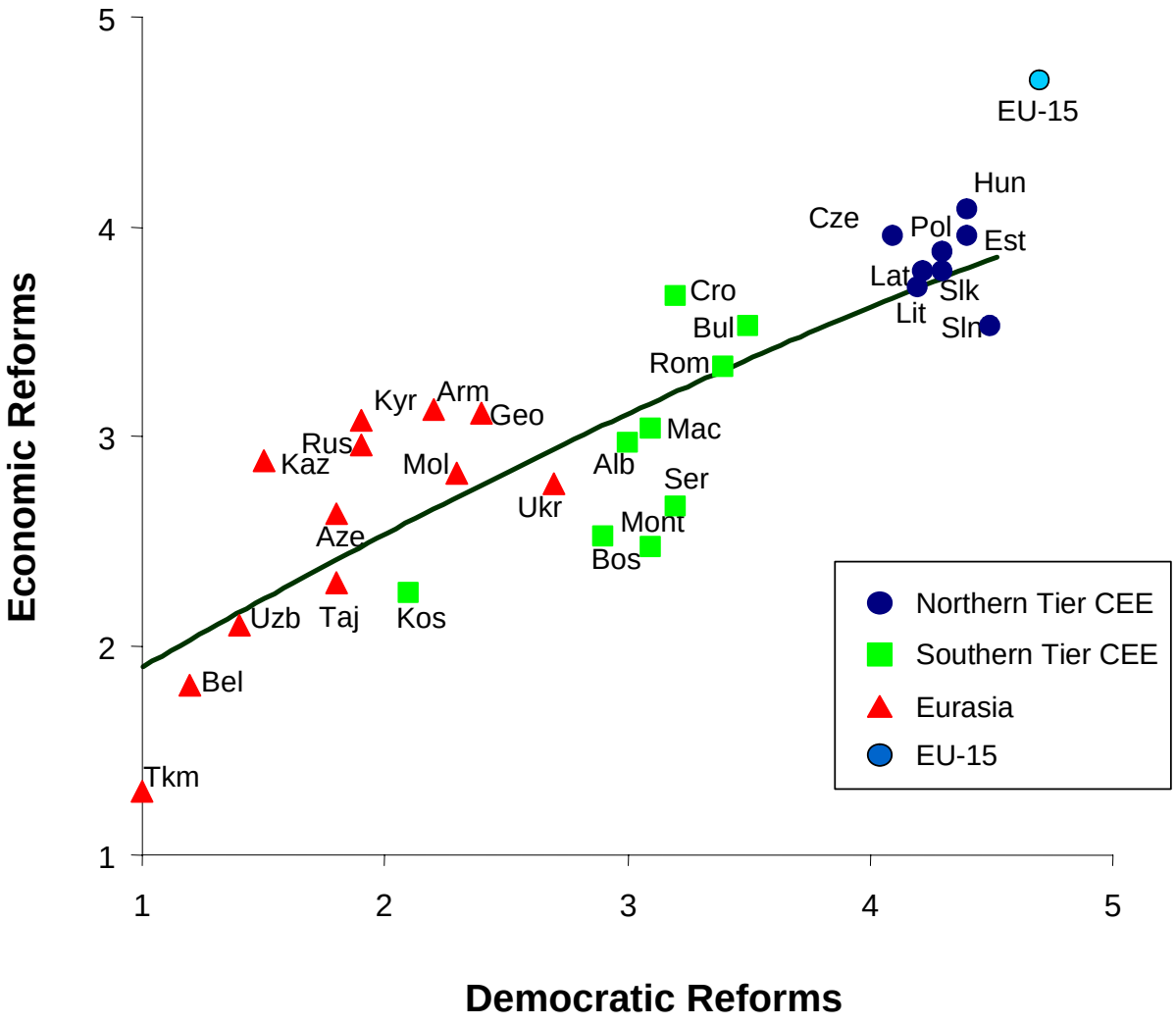
A Linear Best Fit of Economic and Democratic Reforms in 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), and EBRD, *Transition Report 2004* (November 2004).

Figure 2

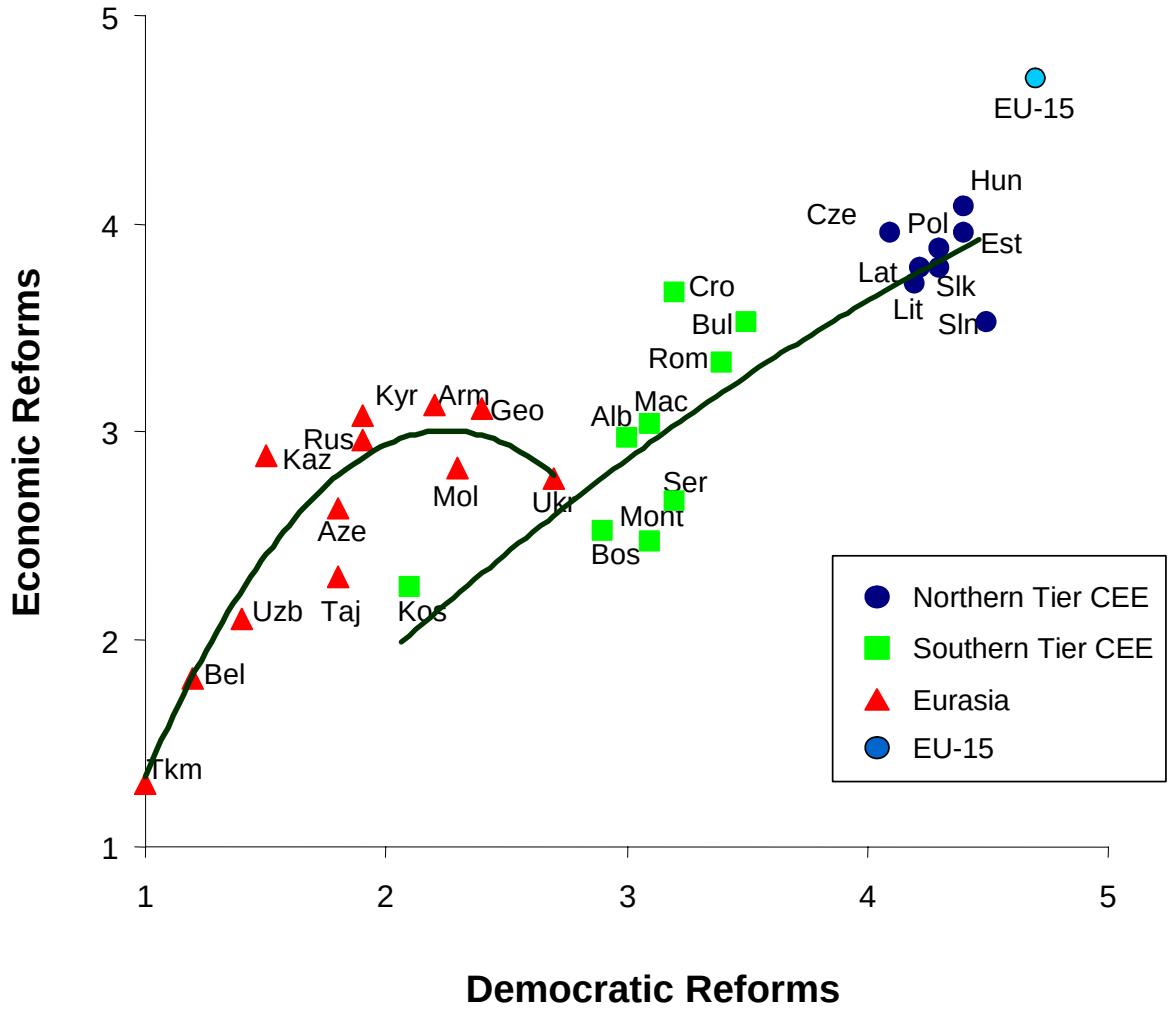
A Non-Linear Best Fit of Economic and Democratic Reforms in 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), and EBRD, *Transition Report 2004* (November 2004).

Figure 3

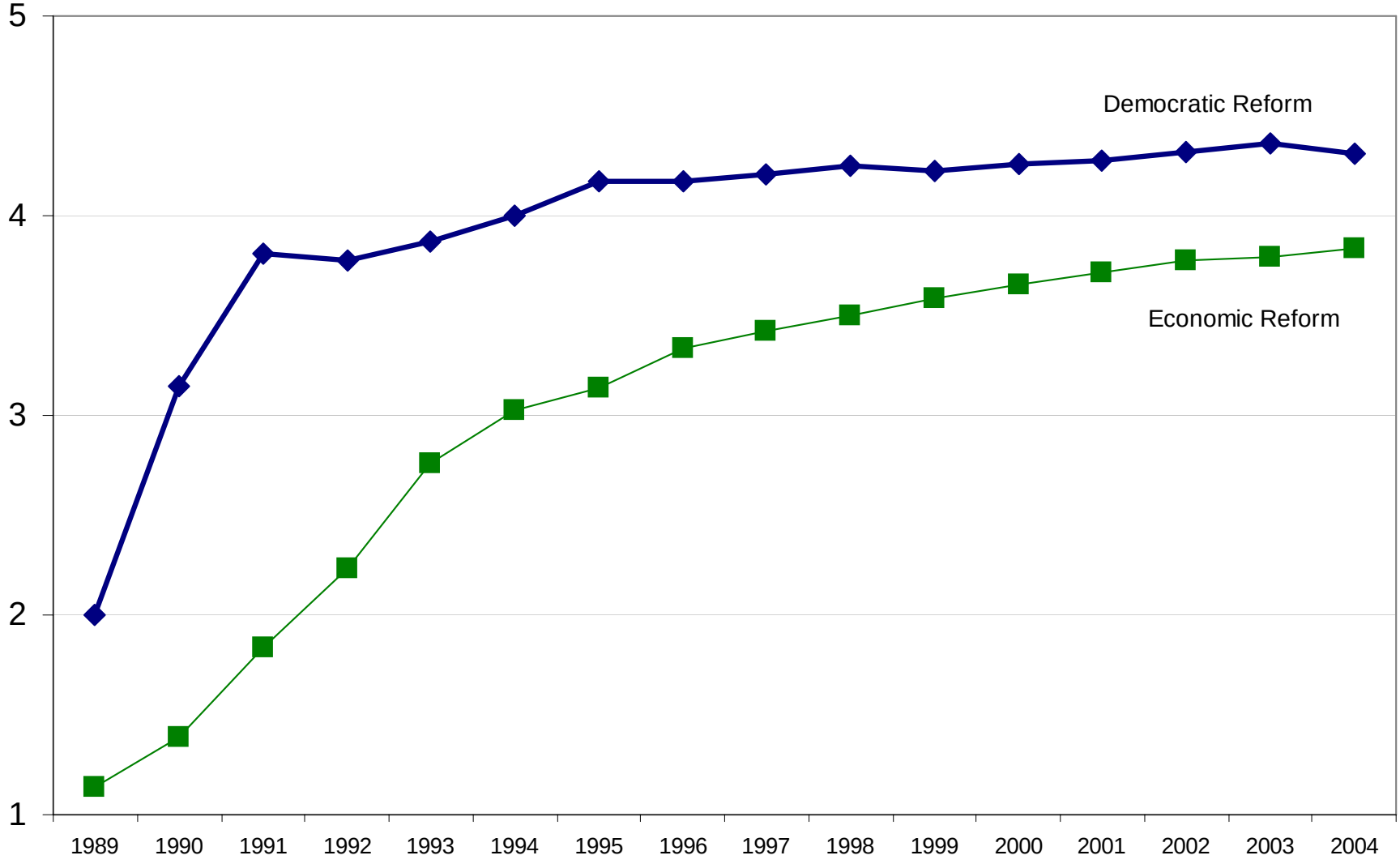
A Non-Linear Best Fit by Sub-Regions of Economic and Democratic Reforms in 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), and EBRD, *Transition Report 2004* (November 2004).

Figure 4

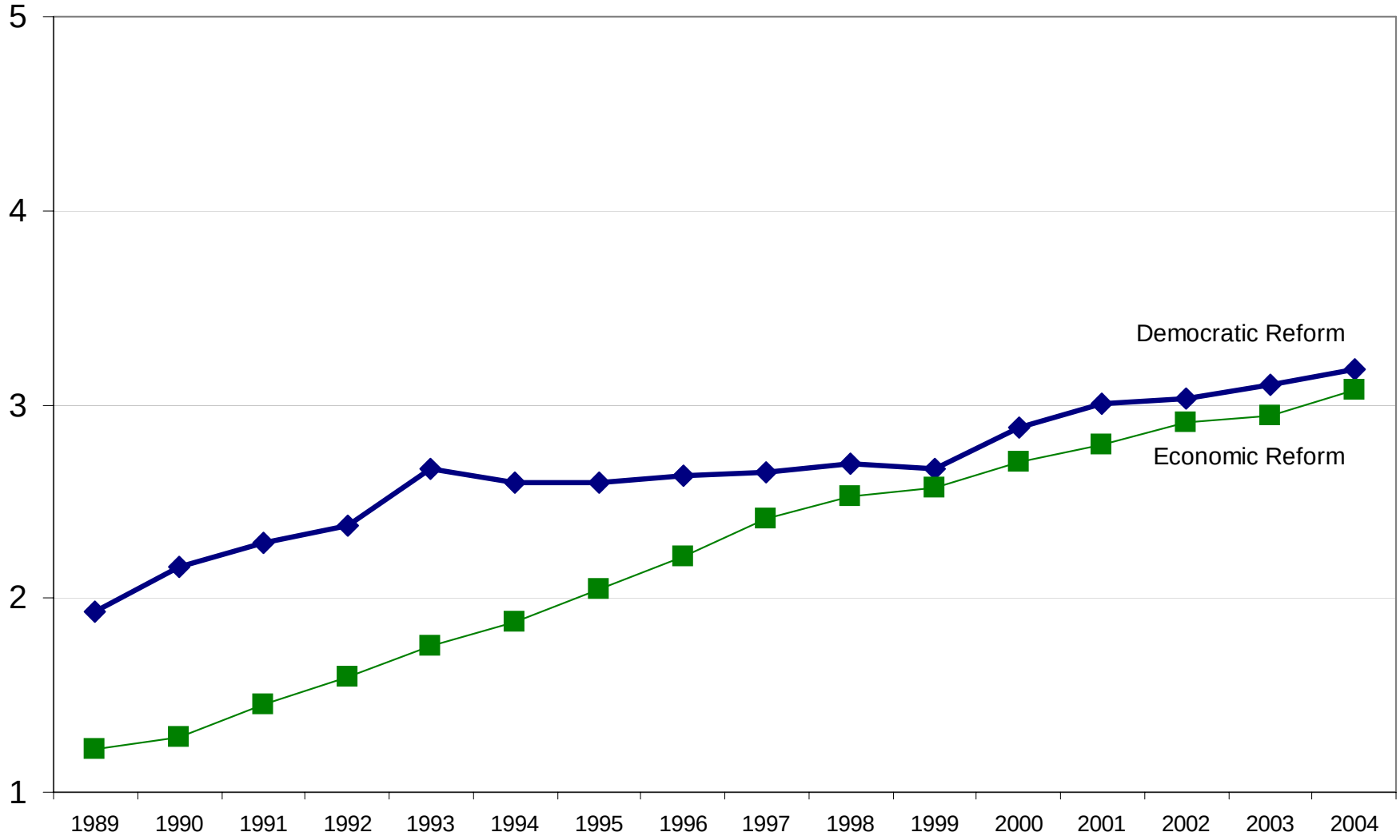
Economic and Democratic Reforms in the Northern Tier CEE in 1989 - 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), *Freedom in the World* (2005), and EBRD, *Transition Report 2004* (November 2004).

Figure 5

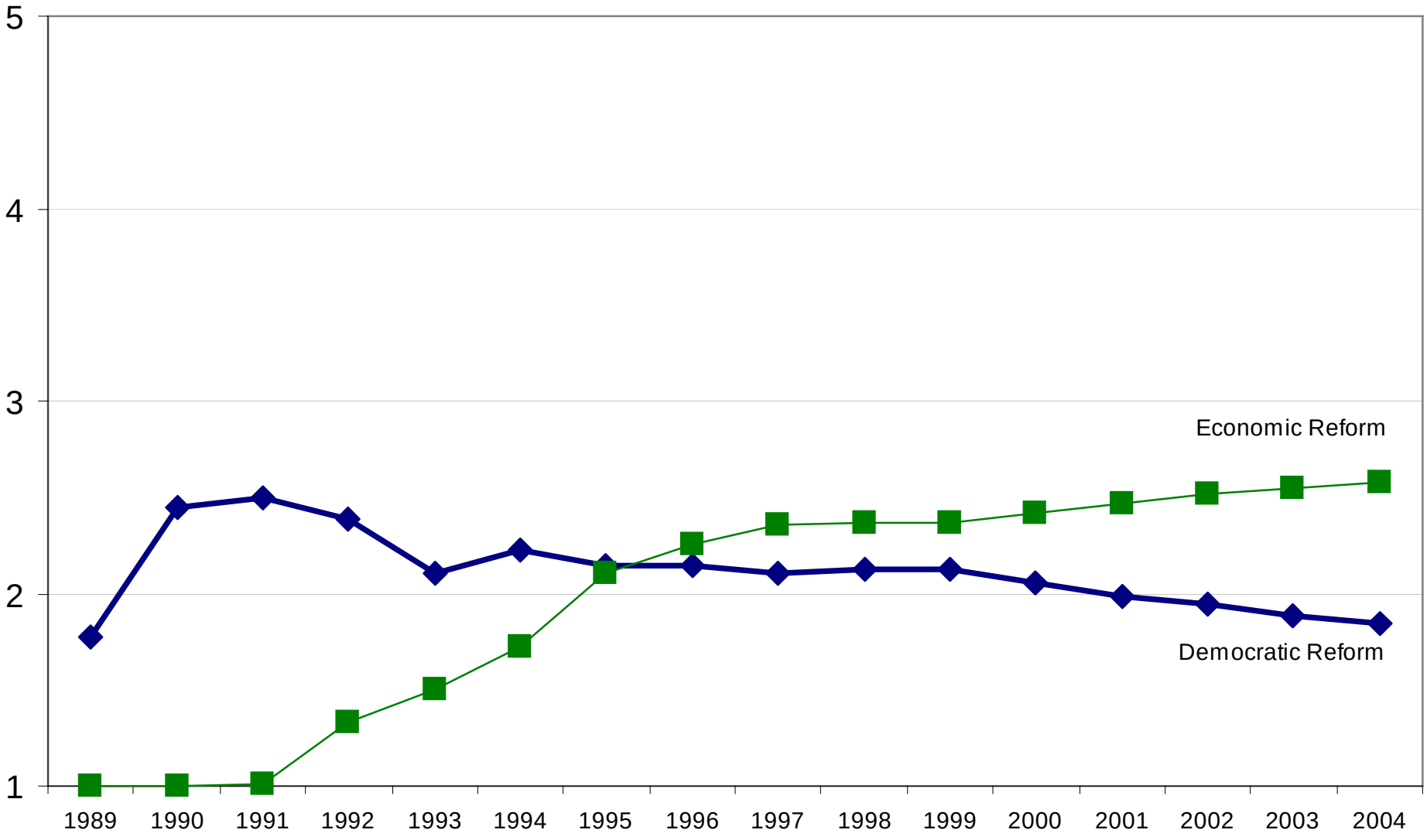
Economic and Democratic Reforms in the Southern Tier CEE in 1989 - 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), *Freedom in the World* (2005), and EBRD, *Transition Report 2004* (November 2004).

Figure 6

Economic and Democratic Reforms in Eurasia in 1989 - 2004



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID drawing from Freedom House, *Nations in Transit 2005* (2005), *Freedom in the World* (2005), and EBRD, *Transition Report 2004* (November 2004).

Table 1

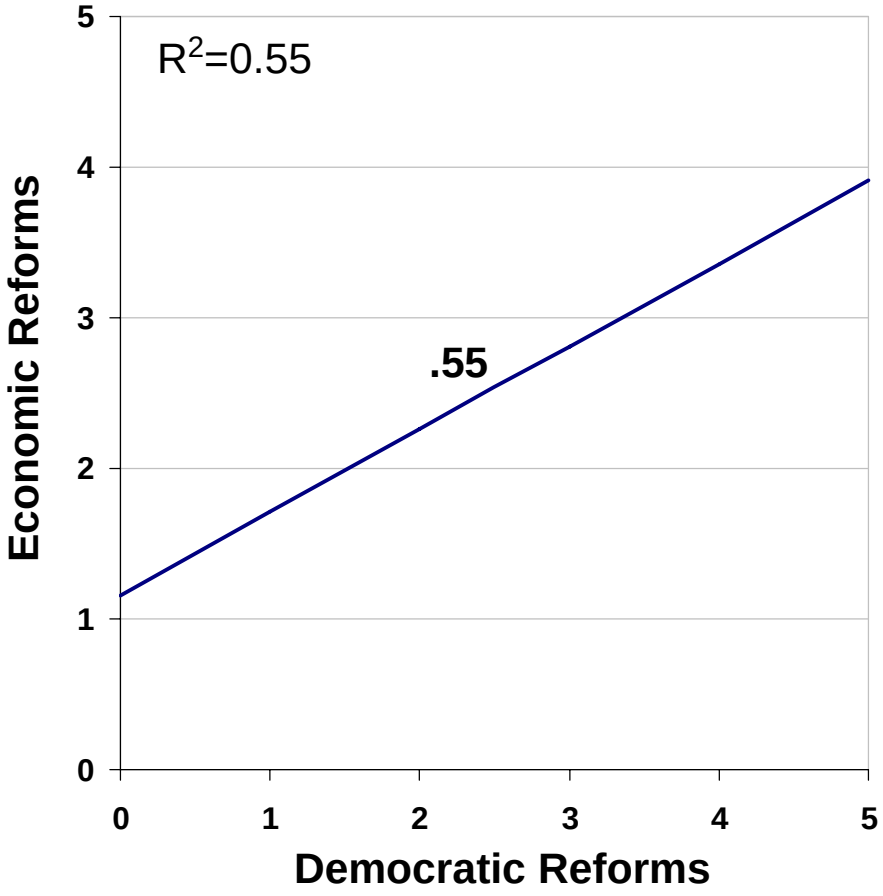
Economic Reforms = Intercept + Democratic Reforms			**Democratic Reforms = Intercept + Economic Reforms**		
	(a) All Countries No Lag 27 countries, 1991 - 2004 378 observations			(a) All Countries No Lag 27 countries, 1991 - 2004 378 observations	
Intercept	**1.16**	*0.1*	**Intercept**	**0.98**	*0.138*
Democratic Reforms	**0.49**	*0.033*	**Economic Reforms**	**0.75**	*0.05*
R Square	0.367		**R Square**	0.37	
	(b) All Countries No Lag, Log	n=378		(b) All Countries No Lag, Log	n=378
Intercept	**0.156**	*0.019*	**Intercept**	**2.06**	*0.019*
Democratic Reforms	**0.528**	*0.04*	**Economic Reforms**	**0.597**	*0.045*
R Square	0.31		**R Square**	0.314	
	(c) All Countries 2 Yr Lag	n=324		(c) All Countries 2 Yr Lag	n=324
Intercept	**1.16**	*0.086*	**Intercept**	**1.056**	*0.146*
Democratic Reforms	**0.55**	*0.028*	**Economic Reforms**	**0.735**	*0.055*
R Square	0.55		**R Square**	0.355	
Note:	Coefficients in **bold** Standard Errors in *italics*				

Figure 7

1st Set of Econometric Tests

Simple regression, 2 year lag, n = 324, 1991- 2004

Econ = 1.16 + 0.55dem $_{(0.03)}$



Dem = 1.06 + 0.74econ $_{(0.06)}$

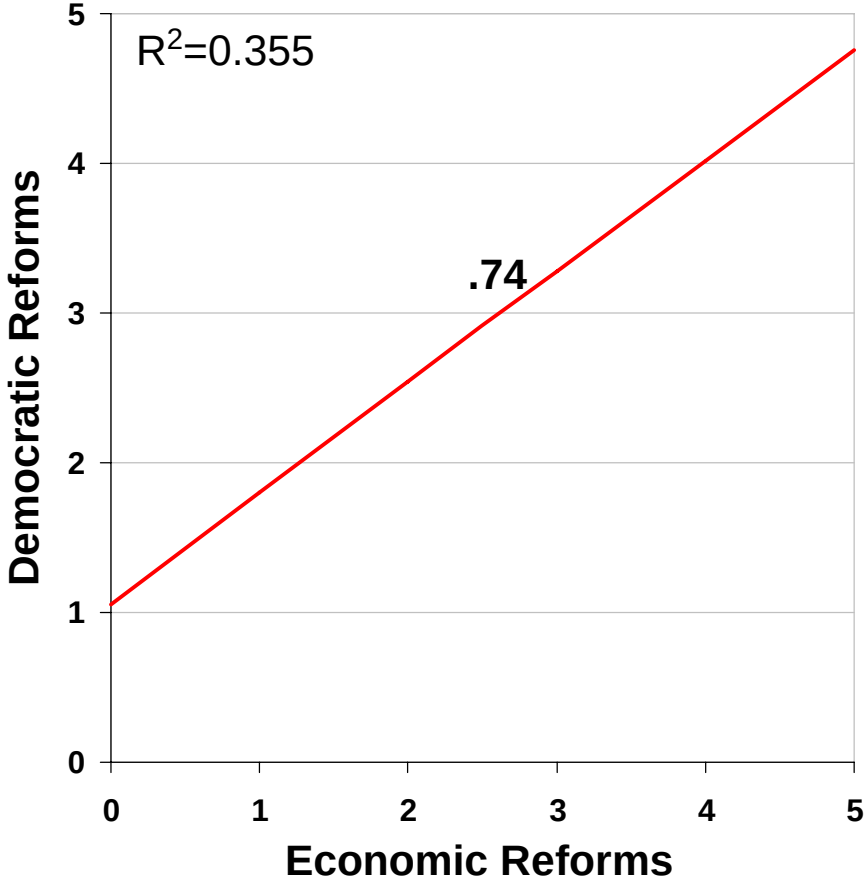


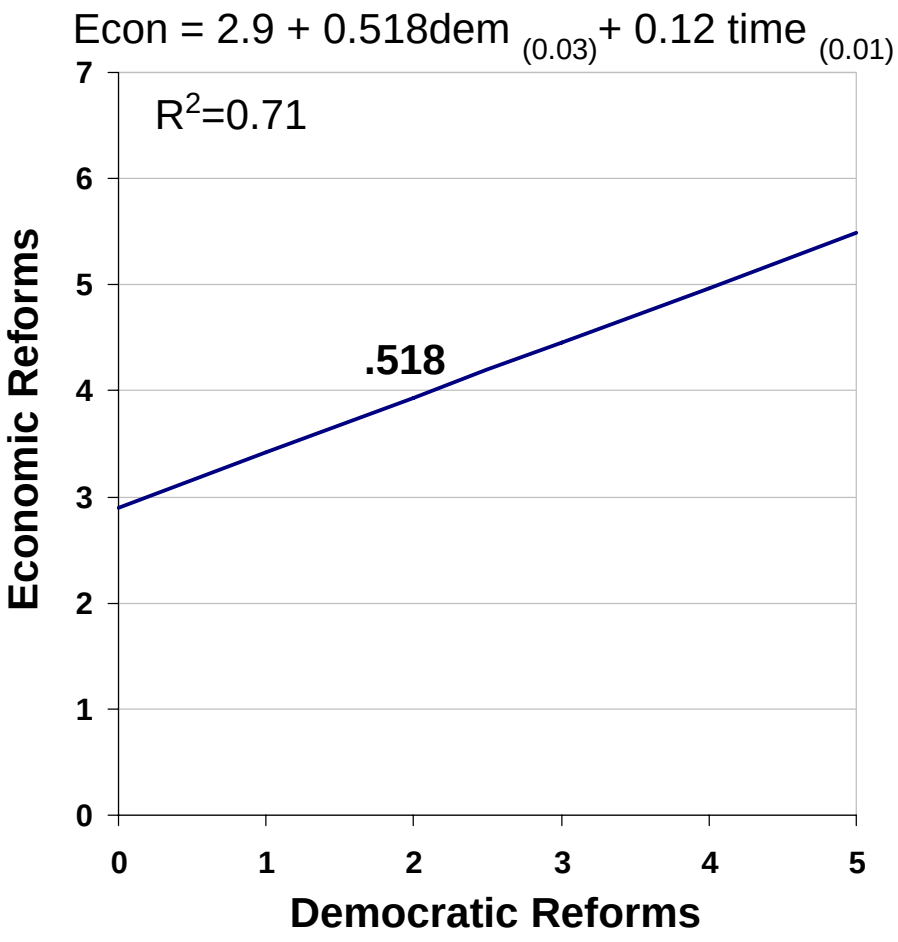
Table 2

Economic Reforms = Intercept + Democratic Reforms + Time			**Democratic Reforms = Intercept + Economic Reforms + Time**		
	(a) All Countries No Lag	n=378		(a) All Countries No Lag	n=378
Intercept	**2.92**	*0.082*	**Intercept**	**0.943**	*0.112*
Democratic Reforms	**0.518**	*0.022*	**Economic Reforms**	**1.12**	*0.049*
Time	**0.12**	*0.006*	**Time**	**-0.14**	*0.001*
R Square	0.707		**R Square**	0.76	
	(b) Sub Regional	n=378		(b) Sub Regional	n=378
Northern Tier CEE			**Northern Tier CEE**		
Intercept	**2.4**	*0.435*	**Intercept**	**4.1**	*0.3*
Democratic Reforms	**0.038**	*0.102*	**Economic Reforms**	**0.036**	*0.113*
Time	**0.118**	*0.009*	**Time**	**-0.009**	*0.018*
Southern Tier CEE			**Southern Tier CEE**		
Intercept	**0.105**	*0.487*	**Intercept**	**1.31**	*0.357*
Democratic Reforms	**0.646**	*0.13*	**Economic Reforms**	**0.7**	*0.149*
Time	**0.082**	*0.015*	**Time**	**-0.034**	*0.023*
Eurasia			**Eurasia**		
Intercept	**0.437**	*0.456*	**Intercept**	**1.6**	*0.327*
Democratic Reforms	**0.405**	*0.113*	**Economic Reforms**	**0.647**	*0.134*
Time	**0.132**	*0.013*	**Time**	**-0.523**	*0.021*
R Square	0.745		**R Square**	0.78	
Note:	Coefficients in **bold** Standard Errors in *italics*				

Figure 9

2nd Set of Econometric Tests

Using time as an explanatory variable, n=378, 1991-2004



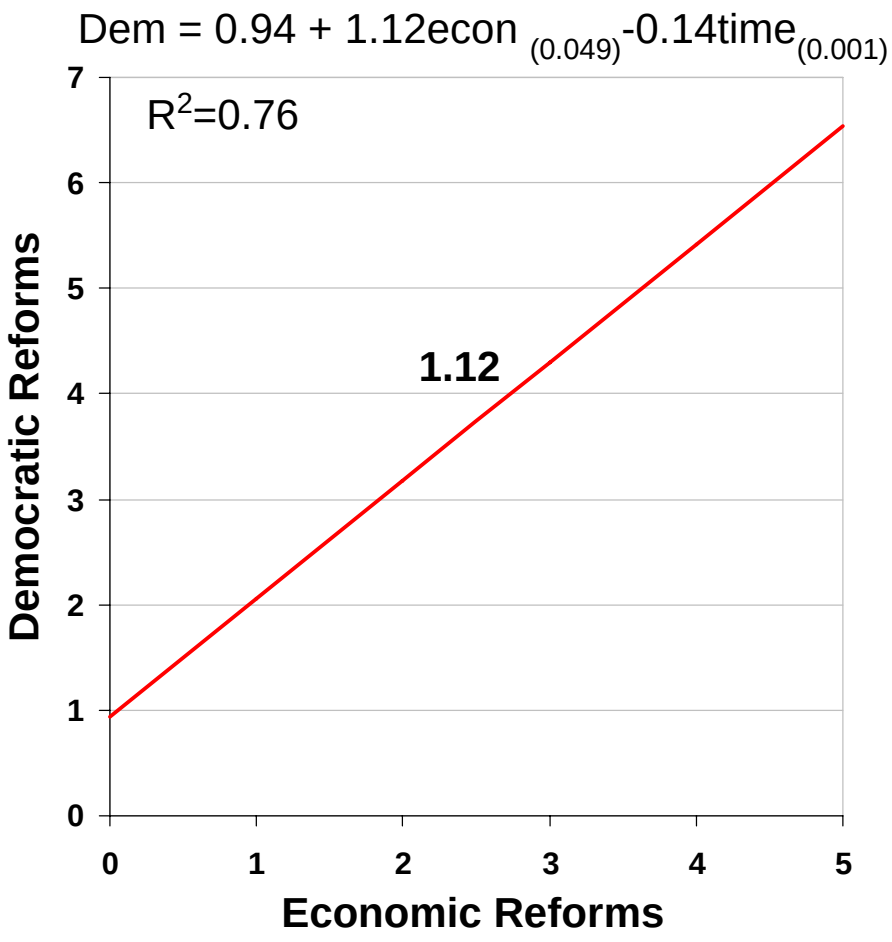
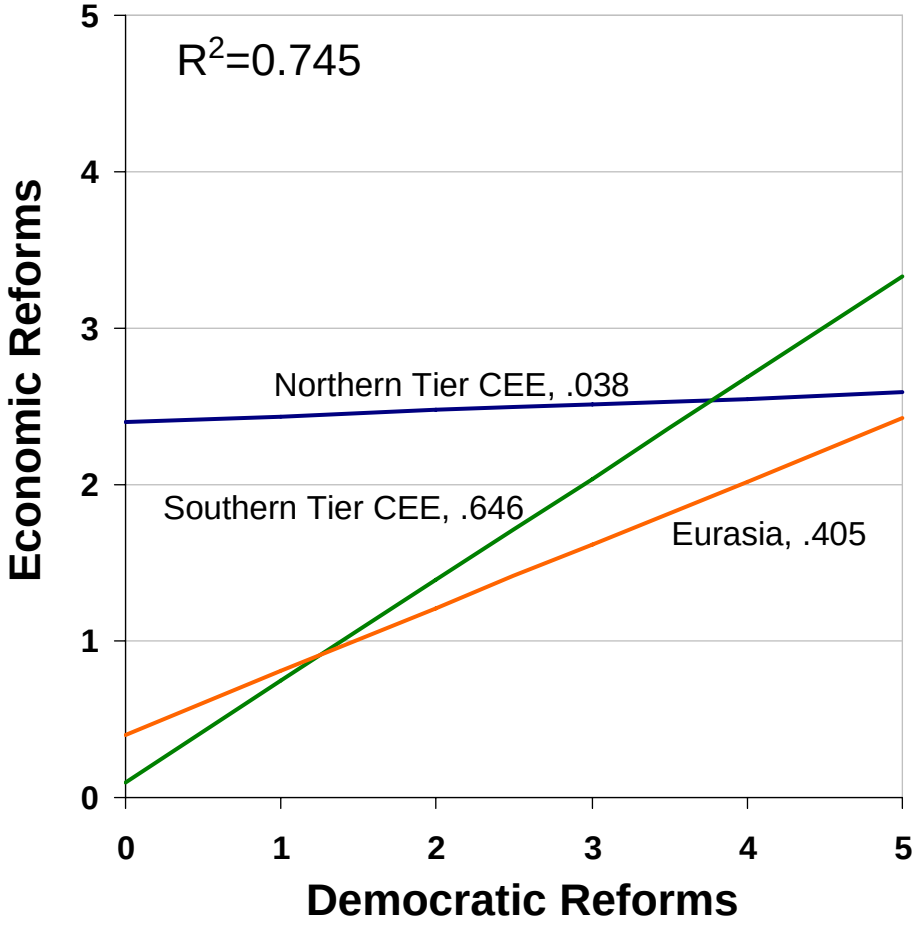


Figure 10

2nd Set of Econometric Tests

Sub Regional with time, n=378, 1991-2004



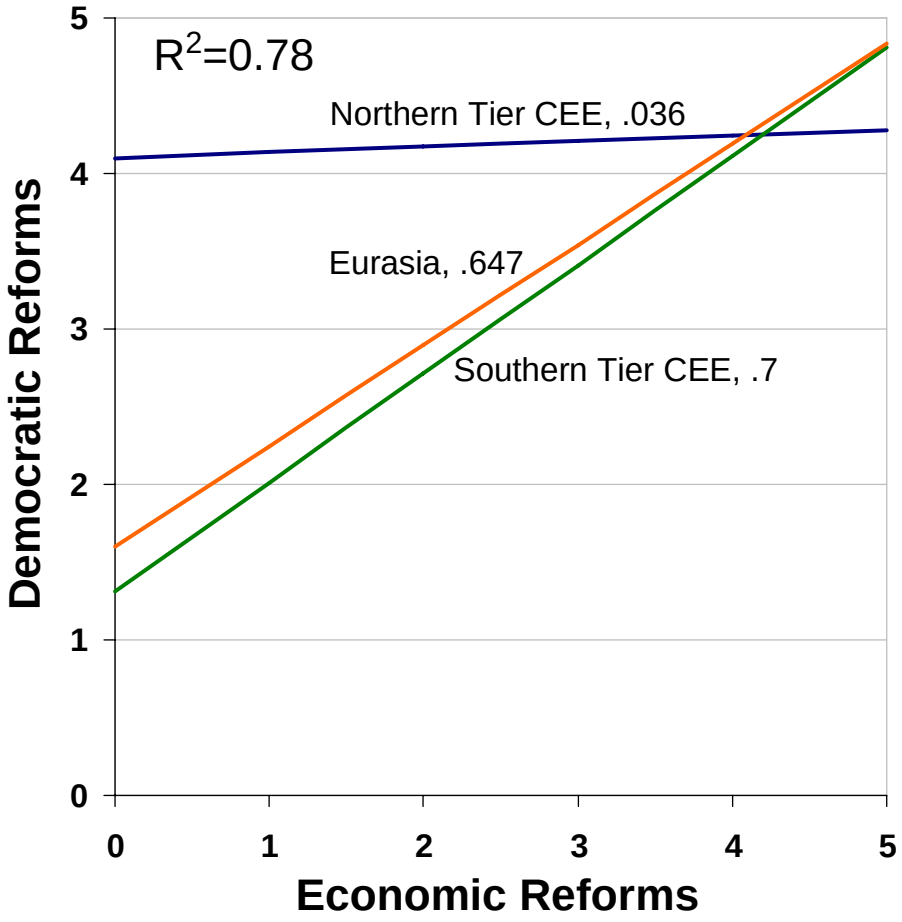


Table 3

Regression Specifications

	OLS	First Difference
Form	yes	no

Data set 1	All 27 countries
Data set 2	Northern Tier only
Data set 3	Southern Tier only
Data set 4	Eurasia only

	Democratic Reform	Economic Reform	GDP Growth
Democratic Reform	3-yr lag	3-yr lag	3-yr lag
Economic Reform	3-yr lag	3-yr lag	3-yr lag
GDP Growth	1-yr lag	1-yr lag	no
ln(GDP/capita) [1990]	yes	yes	yes
War	yes	yes	yes
Time	Dummy per year	Dummy per year	Dummy per year
Region Dummy	no	no	no
Brussels	no	no	no
Education	no	no	yes
Inflation	no	no	yes
Peace 1, 2, 3	no	no	no
Years of Econ reform	no	no	no

Variation	**Dataset**
No time	All
Regional Dummy	All 27 countries

Number of Regressions	
Dataset 1	12
Northern Tier	6
Southern Tier	6
Eurasia	6
Total	**30**

Table 4

Dependent Variable:
Economic Reform

	All Countries		All Countries w/ Region Dummy		Northern Tier		Southern Tier		Eurasia	
	Time	No Time	Time	No Time	Time	No Time	Time	No Time	Time	No Time
Democratic Reform	**0.183 ***	**0.256 ***	**0.110 ***	**0.171 ***	**0.147 ***	**0.204 ***	**0.078**	**0.054**	**0.153 ***	***0.262 ****
	0.034	*0.028*	*0.035*	*0.030*	*0.041*	*0.033*	*0.097*	*0.080*	*0.063*	*0.053*
Economic Reform	**0.696 ***	**0.562 ***	**0.652 ***	**0.572 ***	**0.482 ***	**0.421 ***	**0.778 ***	**0.734 ***	**0.858 ***	**0.696 ***
	0.047	*0.030*	*0.046*	*0.029*	*0.066*	*0.034*	*0.101*	*0.069*	*0.080*	*0.054*
GDP Growth	**0.000**	**-0.003**	**-0.002**	**-0.003**	**-0.002**	**-0.006**	**0.004**	**-0.001**	**0.005**	***-0.004***
	0.003	*0.002*	*0.003*	*0.002*	*0.006*	*0.005*	*0.005*	*0.003*	*0.005*	*0.004*
ln(GDP/capita) [1990]	**0.110**	**0.109**	**-0.093**	**-0.127**	**-0.172**	**-0.187**	**-0.075**	**-0.091**	**-0.086**	**-0.165**
	0.081	*0.080*	*0.088*	*0.088*	*0.191*	*0.187*	*0.188*	*0.178*	*0.110*	*0.120*
War	**-0.343 ***	**-0.391 ***	**-0.316 ***	**-0.365 ***	**0.000**	**0.000**	**-0.338 ***	**-0.354 ***	**-0.109**	***-0.268 ****
	0.077	*0.076*	*0.074*	*0.073*	-	-	*0.156*	*0.136*	*0.093*	*0.098*
Southern Tier			**-0.246 ***	**-0.231 ***						
			0.056	*0.053*						
Eurasia			**-0.360 ***	**-0.349 ***						
			0.066	*0.061*						
Intercept	**0.288**	**0.296**	**1.412 ***	**1.599 ***	**2.059 ***	**2.139 ***	**1.093**	**1.183**	**0.597**	**0.949 ***
	0.292	*0.273*	*0.350*	*0.348*	*0.773*	*0.751*	*0.695*	*0.652*	*0.394*	*0.424*
Observations	345	345	345	345	104	104	85	85	156	156
Adjused R^2	0.862	0.859	0.873	0.871	0.886	0.888	0.790	0.810	0.805	0.759

Note: Coefficients in **bold**
Standard Errors in *italics*
* represents statistical significance at the 5% level

Table 5

Dependent Variable:
Democratic Reform

	All Countries		All Countries w/ Region Dummy		Northern Tier		Southern Tier		Eurasia	
	Time	No Time	Time	No Time	Time	No Time	Time	No Time	Time	No Time
Democratic Reform	**0.585 ***	**0.659 ***	**0.390 ***	**0.362 ***	**0.404 ***	**0.298 ***	**0.171**	**0.112**	**0.418 ***	**0.484 ***
	0.051	*0.047*	*0.046*	*0.041*	*0.066*	*0.055*	*0.110*	*0.094*	*0.092*	*0.075*
Economic Reform	**0.366 ***	**0.058**	**0.235 ***	**0.099 ***	**0.078**	**-0.002**	**0.213**	**0.263 ***	**0.398 ***	**0.135**
	0.072	*0.051*	*0.060*	*0.039*	*0.106*	*0.056*	*0.114*	*0.082*	*0.117*	*0.077*
GDP Growth	**0.004**	**-0.010 ***	**-0.007 ***	**-0.014 ***	**0.014**	**0.007**	**-0.012 ***	**-0.014 ***	**-0.001**	**-0.012 ***
	0.004	*0.004*	*0.003*	*0.003*	*0.009*	*0.008*	*0.005*	*0.004*	*0.007*	*0.006*
ln(GDP/capita) [1990]	**0.971 ***	**1.220 ***	**0.307 ***	**0.316 ***	**0.157**	**0.026**	**0.163**	**0.173**	**0.427 ***	**0.419 ***
	0.124	*0.135*	*0.115*	*0.118*	*0.308*	*0.310*	*0.214*	*0.210*	*0.162*	*0.170*
War	**-0.304 ***	**-0.289 ***	**-0.248 ***	**-0.209 ***	**0.000**	**0.000**	**-0.501 ***	**-0.530 ***	**-0.059**	**-0.032**
	0.117	*0.129*	*0.097*	*0.098*	-	-	*0.177*	*0.161*	*0.136*	*0.139*
Southern Tier			**-0.564 ***	**-0.709 ***						
			0.073	*0.071*						
Eurasia			**-1.070 ***	**-1.275 ***						
			0.086	*0.082*						
Intercept	**-2.114 ***	**-3.572 ***	**1.363 ***	**1.271 ***	**2.366**	**2.917 ***	**1.331**	**1.402**	**-0.260**	**-0.715**
	0.446	*0.462*	*0.457*	*0.467*	*1.245*	*1.243*	*0.789*	*0.770*	*0.577*	*0.600*
Observations	345	345	345	345	104	104	85	85	156	156
Adjused R^2	0.813	0.766	0.874	0.864	0.457	0.437	0.455	0.469	0.463	0.382

Note: Coefficients in **bold**
Standard Errors in *italics*
* represents statistical significance at the 5% level

Table 6

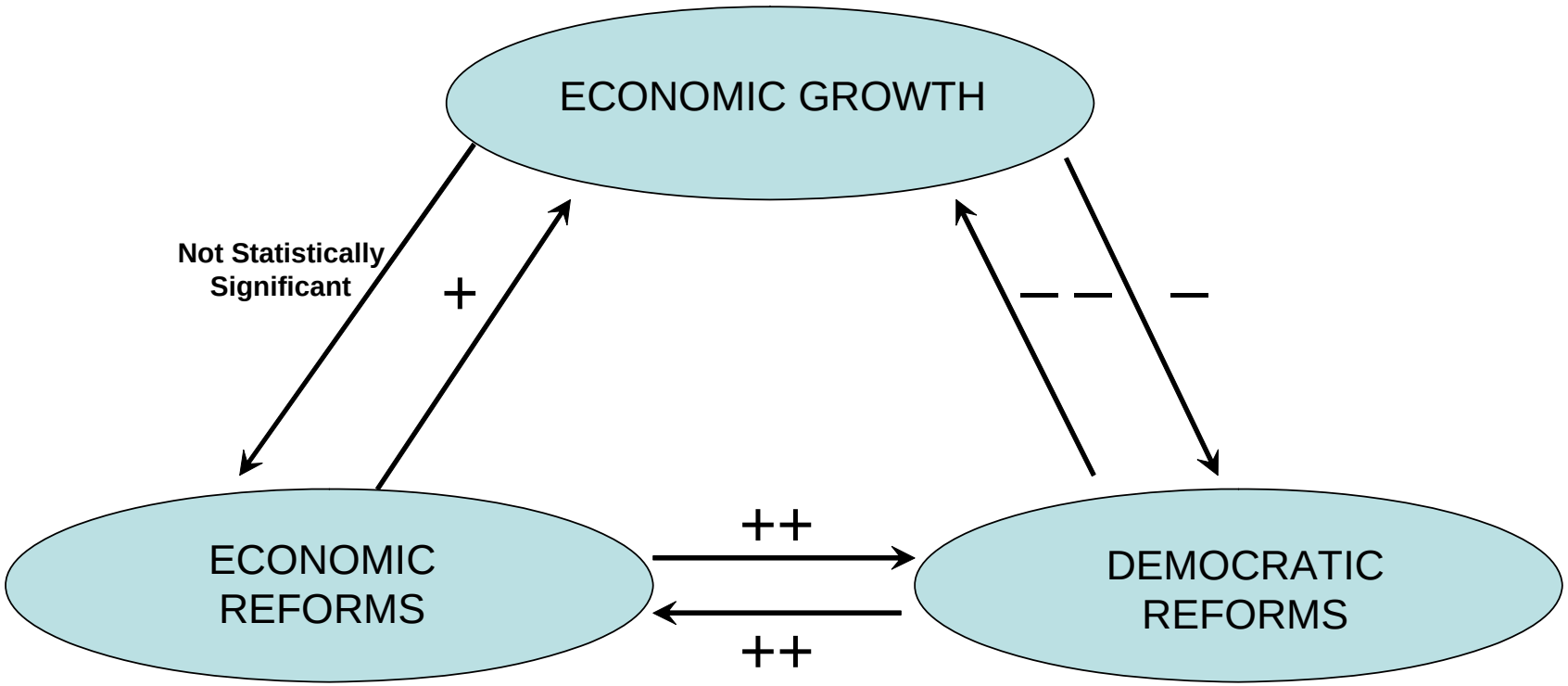
Dependent Variable:
GDP Growth

	All Countries		All Countries w/ Region Dummy		Northern Tier		Southern Tier		Eurasia	
	Time	No Time	Time	No Time	Time	No Time	Time	No Time	Time	No Time
Democratic Reform	**-0.858**	**-1.405 ***	**-1.431 ***	**-1.268 ***	**0.037**	**0.828**	**0.768**	**2.337**	**0.285**	**-4.598 ***
	0.633	*0.565*	*0.671*	*0.640*	*0.539*	*0.497*	*1.573*	*1.303*	*1.245*	*1.079*
Economic Reform	**1.226**	**5.690 ***	**0.396**	**5.675 ***	**0.948**	**1.739 ***	**-2.999**	**-0.729**	**-2.213**	**8.568 ***
	1.012	*0.592*	*1.021*	*0.596*	*1.056*	*0.430*	*1.893*	*1.370*	*1.715*	*0.993*
ln(GDP/capita) [1990]	**1.552**	**1.380**	**-1.246**	**1.188**	**-8.065 ***	**-7.665 ***	**-14.772 ***	**-5.994**	**-1.163**	**5.057**
	1.769	*1.907*	*1.912*	*2.074*	*2.595*	*2.774*	*5.584*	*5.126*	*2.534*	*2.885*
War	**-8.251 ***	**-9.620 ***	**-8.041 ***	**-9.700 ***	**0.000**	**0.000**	**-4.433**	**-4.752**	**-7.148 ***	**-9.632 ***
	1.373	*1.466*	*1.351*	*1.468*	-	-	*2.444*	*2.459*	*1.641*	*1.907*
Education	**0.010**	**-0.068 ***	**0.006**	**-0.076 ***	**-0.038**	**-0.070 ***	**0.117**	**0.016**	**0.025**	**-0.097 ***
	0.026	*0.026*	*0.027*	*0.027*	*0.025*	*0.021*	*0.060*	*0.052*	*0.044*	*0.049*
Inflation	**-0.002 ***	**-0.003 ***	**-0.002 ***	**-0.003 ***	**-0.027 ***	**-0.030 ***	**-0.005**	**-0.014 ***	**0.000**	**-0.002 ***
	0.000	*0.000*	*0.000*	*0.001*	*0.003*	*0.003*	*0.004*	*0.003*	*0.001*	*0.001*
Southern Tier			**-2.216 ***	**0.909**						
			1.109	*1.159*						
Eurasia			**-4.436 ***	**-0.234**						
			1.291	*1.317*						
Intercept	**-13.983 ***	**-7.139**	**0.847**	**-6.392**	**31.143 ***	**32.023 ***	**45.181 ***	**20.429**	**-7.429**	**-17.672**
	5.849	*6.158*	*7.165*	*7.736*	*10.808*	*11.553*	*18.139*	*16.839*	*8.130*	*9.416*
Observations	279	279	279	279	87	87	60	60	132	132
Adjused R^2	0.622	0.552	0.637	0.552	0.824	0.797	0.528	0.440	0.751	0.635

Note: Coefficients in **bold**
Standard Errors in *italics*
* represents statistical significance at the 5% level

Figure 11

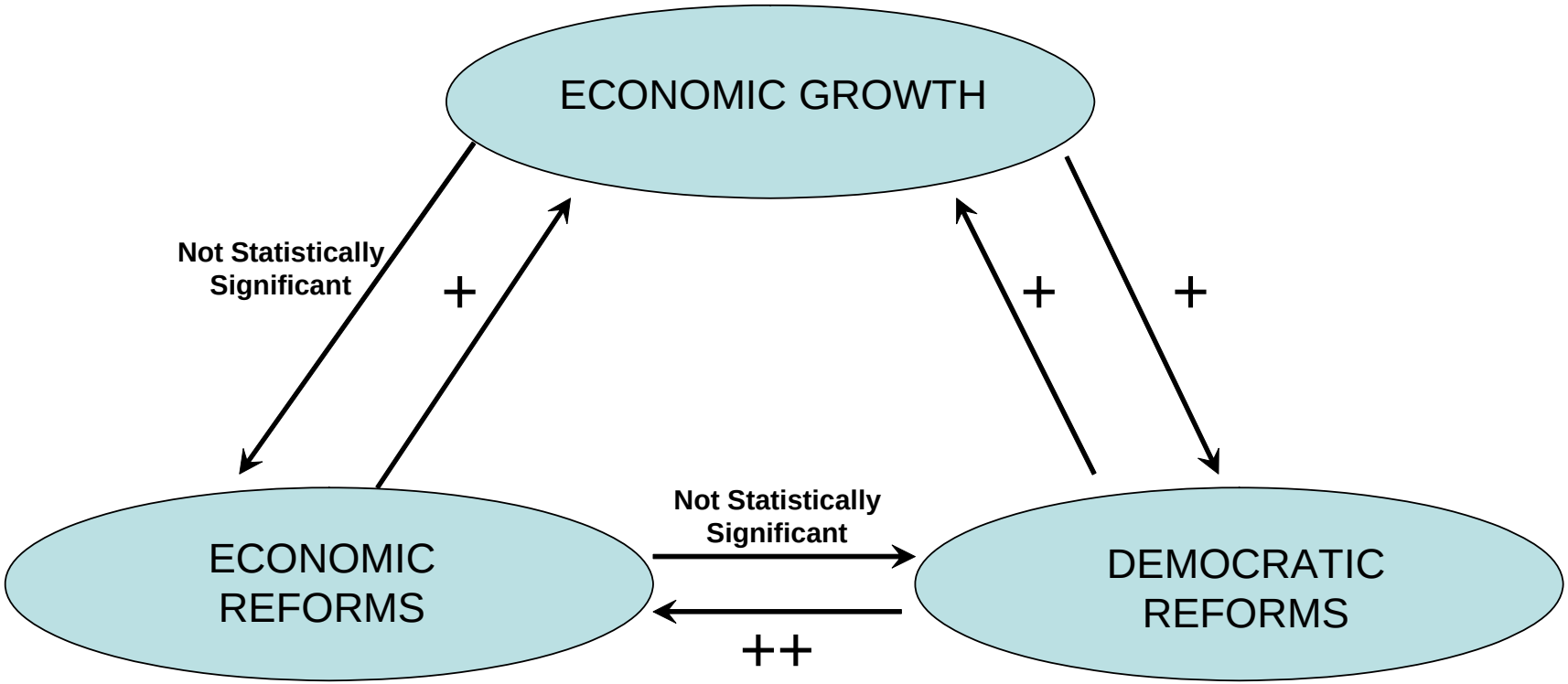
Findings from Full Sample



"+ +" or "- -": all 4 tests show a consistent coefficient sign, and at least 3 are statistically significant at 5% level.
"+" or "-": at least 2 of 4 tests are statistically significant at 5% level.
Findings are from Tables 4-6.

Figure 12

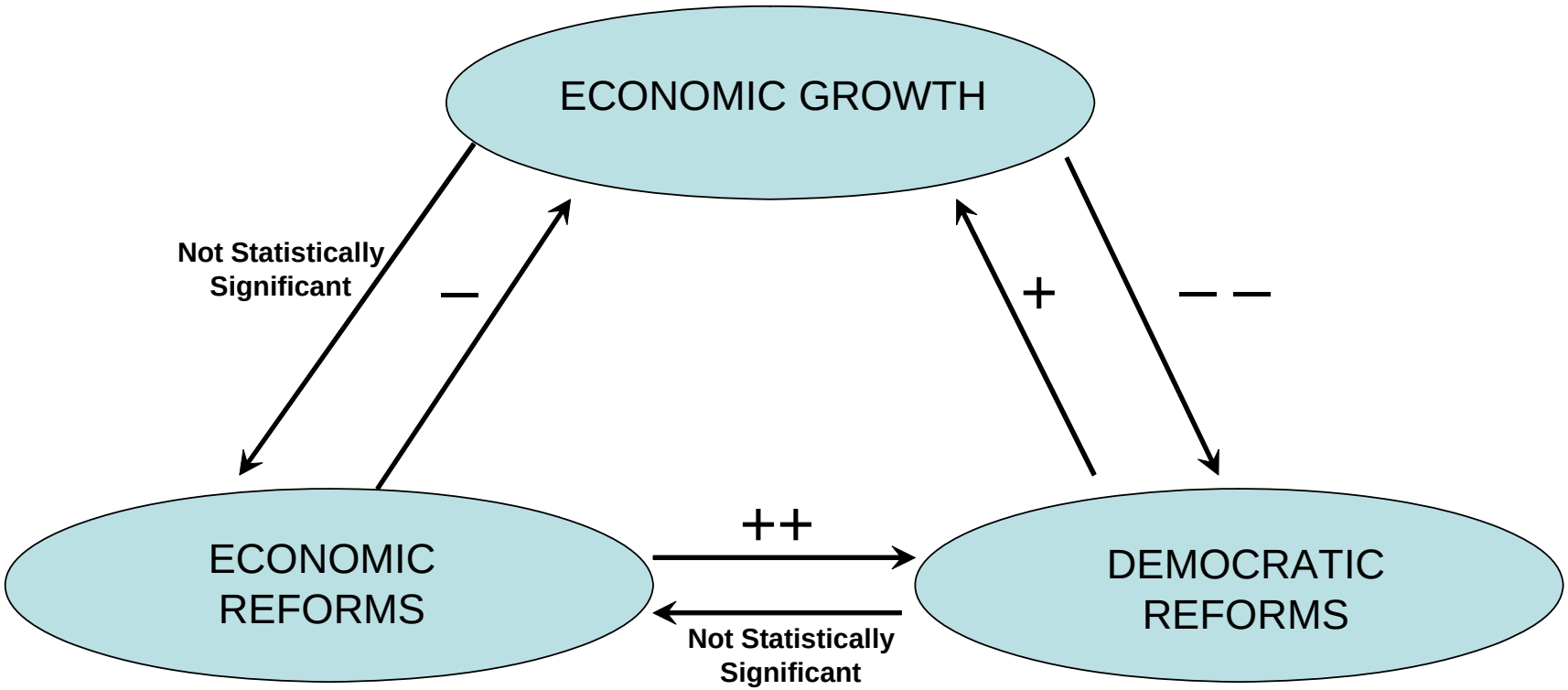
Northern Tier CEE



"+ +" or "- -": both tests show a consistent coefficient sign, and are statistically significant at 5% level.
"+" or "-": at least 1 of 2 tests are statistically significant at the 10% level.
Findings are from Tables 4-6.

Figure 13

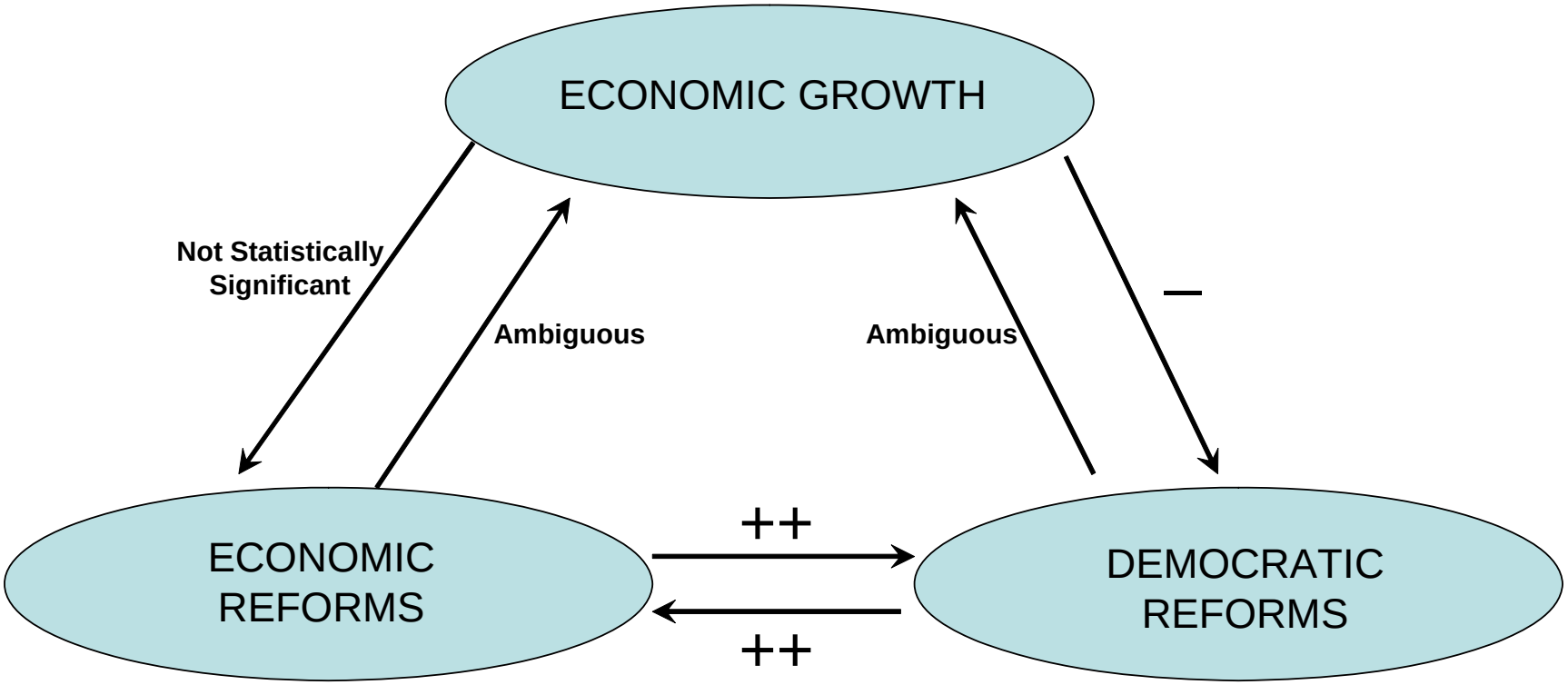
Southern Tier CEE



"+ +" or "- -": both tests show a consistent coefficient sign, and are statistically significant at 10% level.
"+" or "-": at least 1 of 2 tests are statistically significant at the 10% level.
Findings are from Tables 4-6.

Figure 14

Eurasia



"+ +" or "- -": both tests show a consistent coefficient sign, and are statistically significant at 10% level. Ambiguous: different coefficient signs, but at least 1 test result is statistically significant. "-": at least 1 of 2 tests are statistically significant at the 5% level. Findings are from Tables 4-6.

Figure 15

Findings from Fidrmuc (2003)

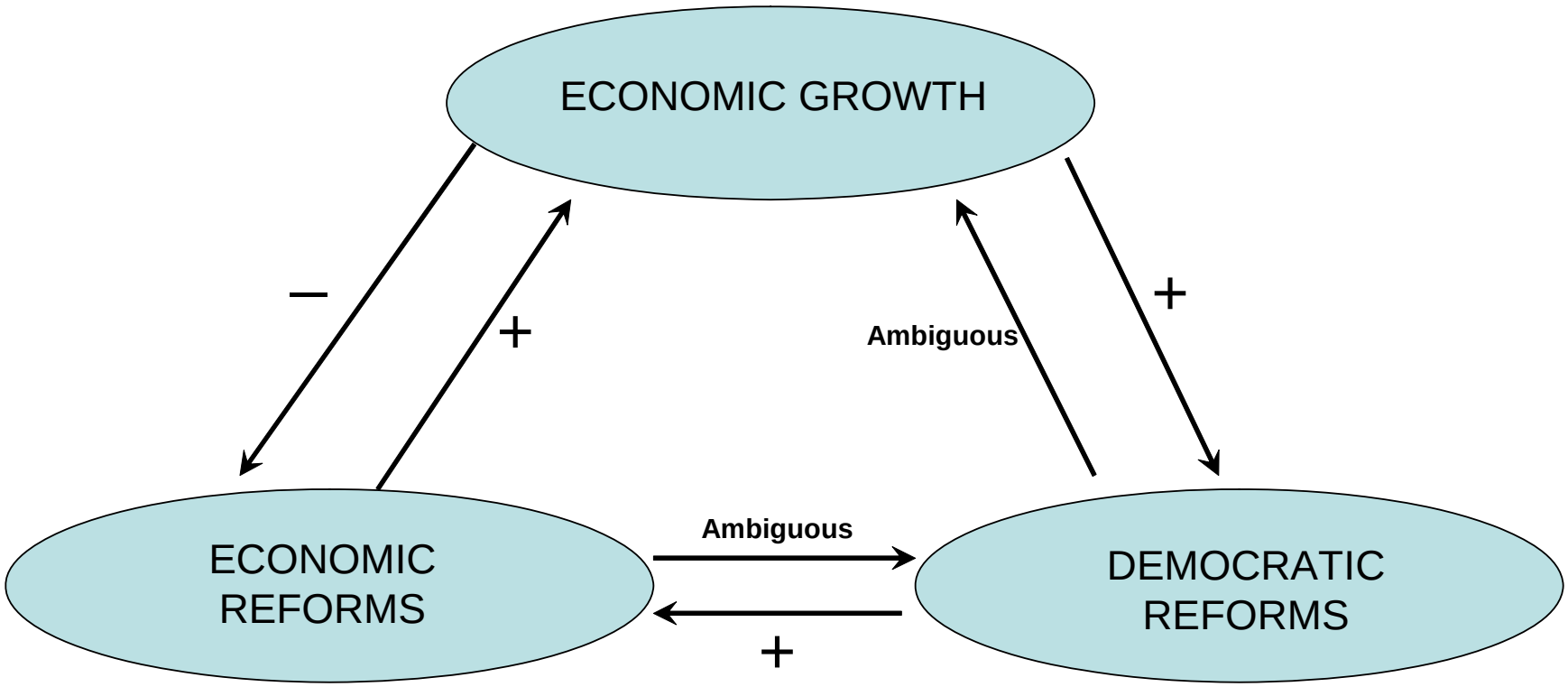
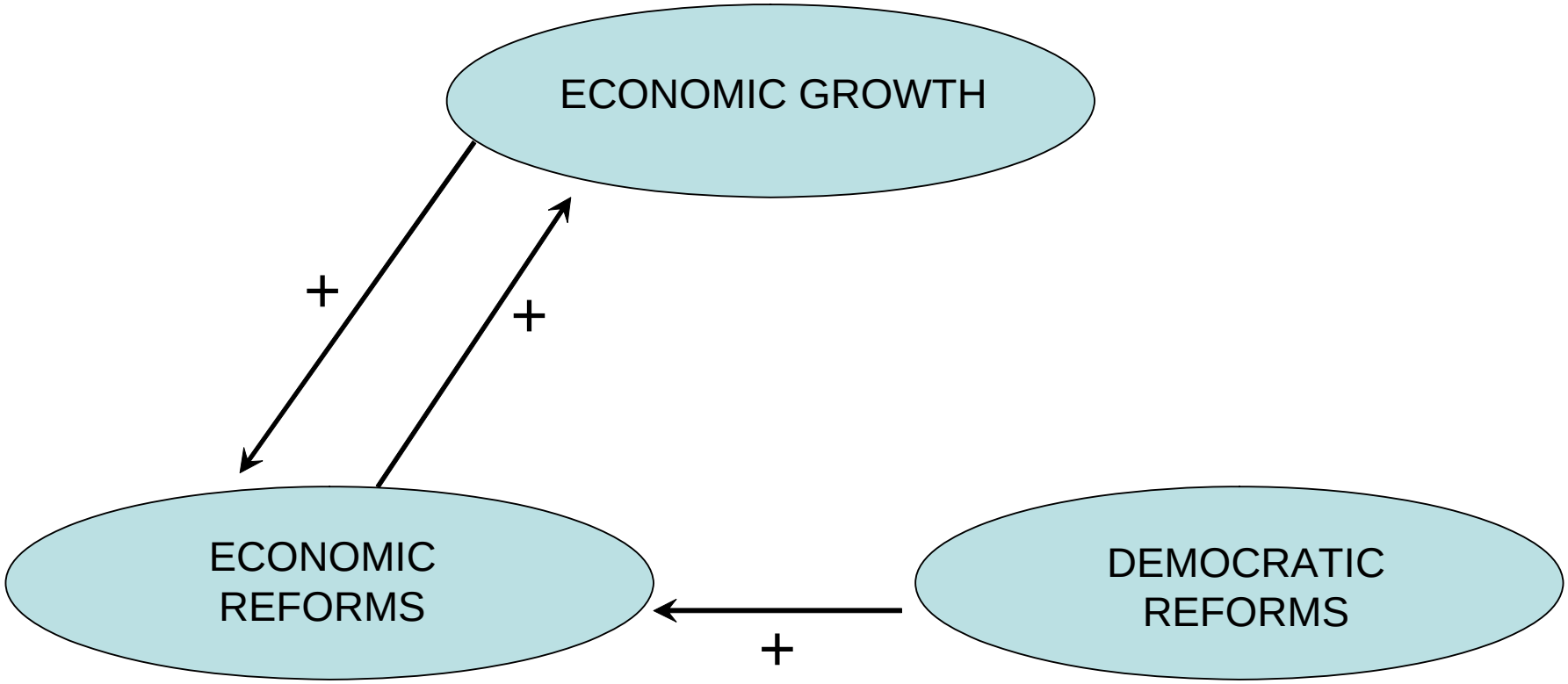


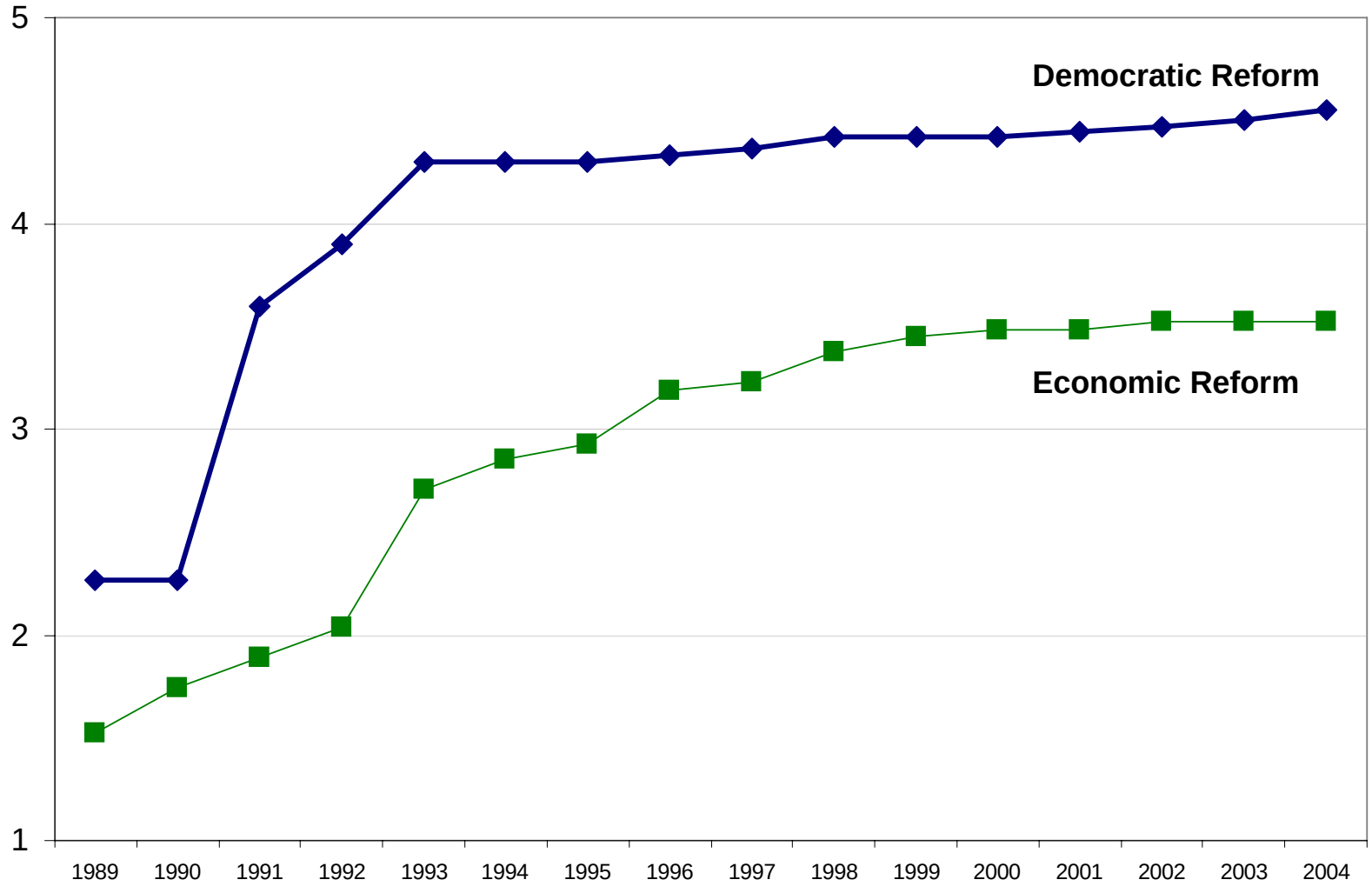
Figure 16

Findings from Falcetti, Lysenko, & Sanfey (2005)



Appendix
Figure 1

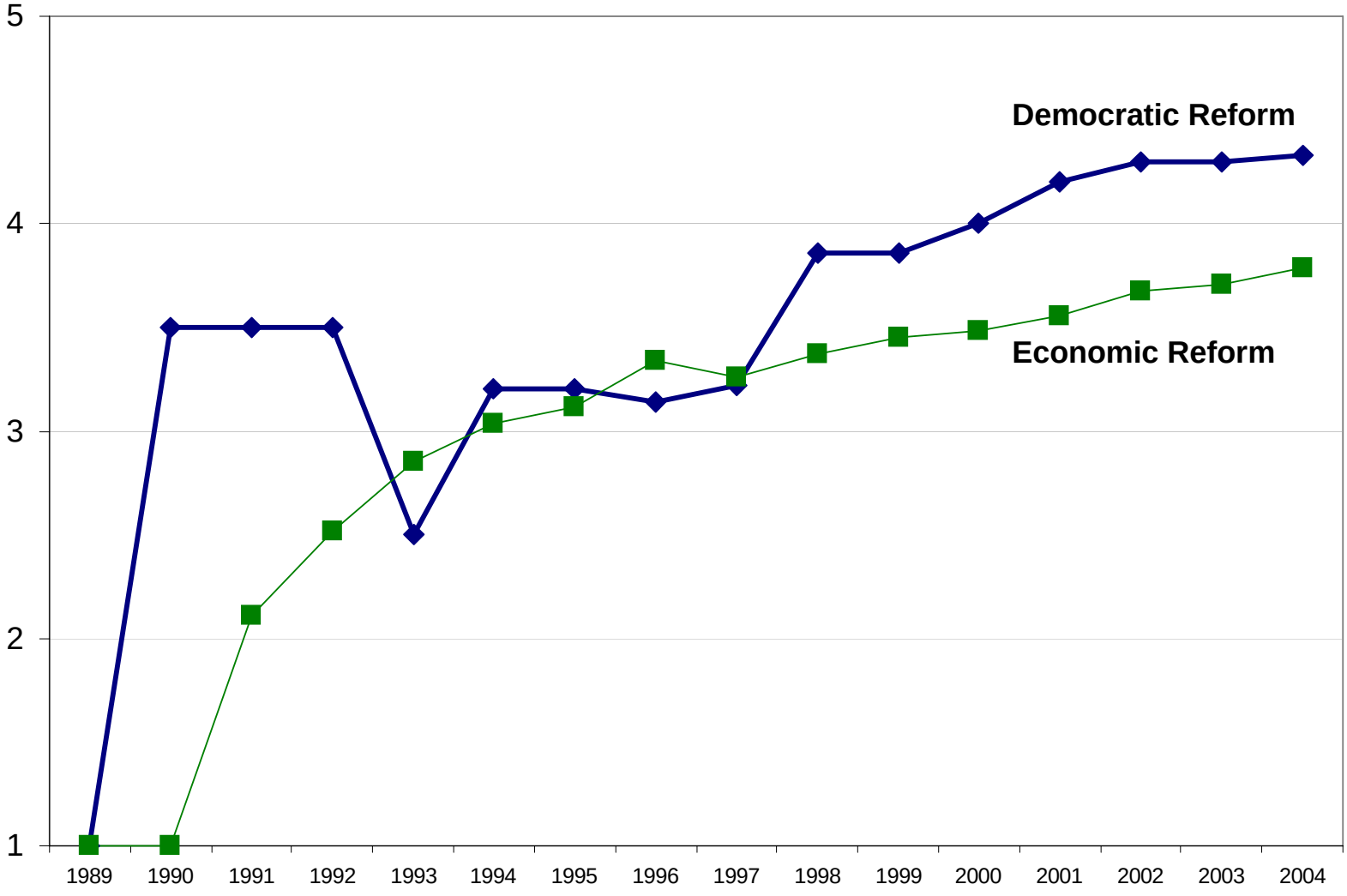
Economic and Democratic Reforms in Slovenia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 2

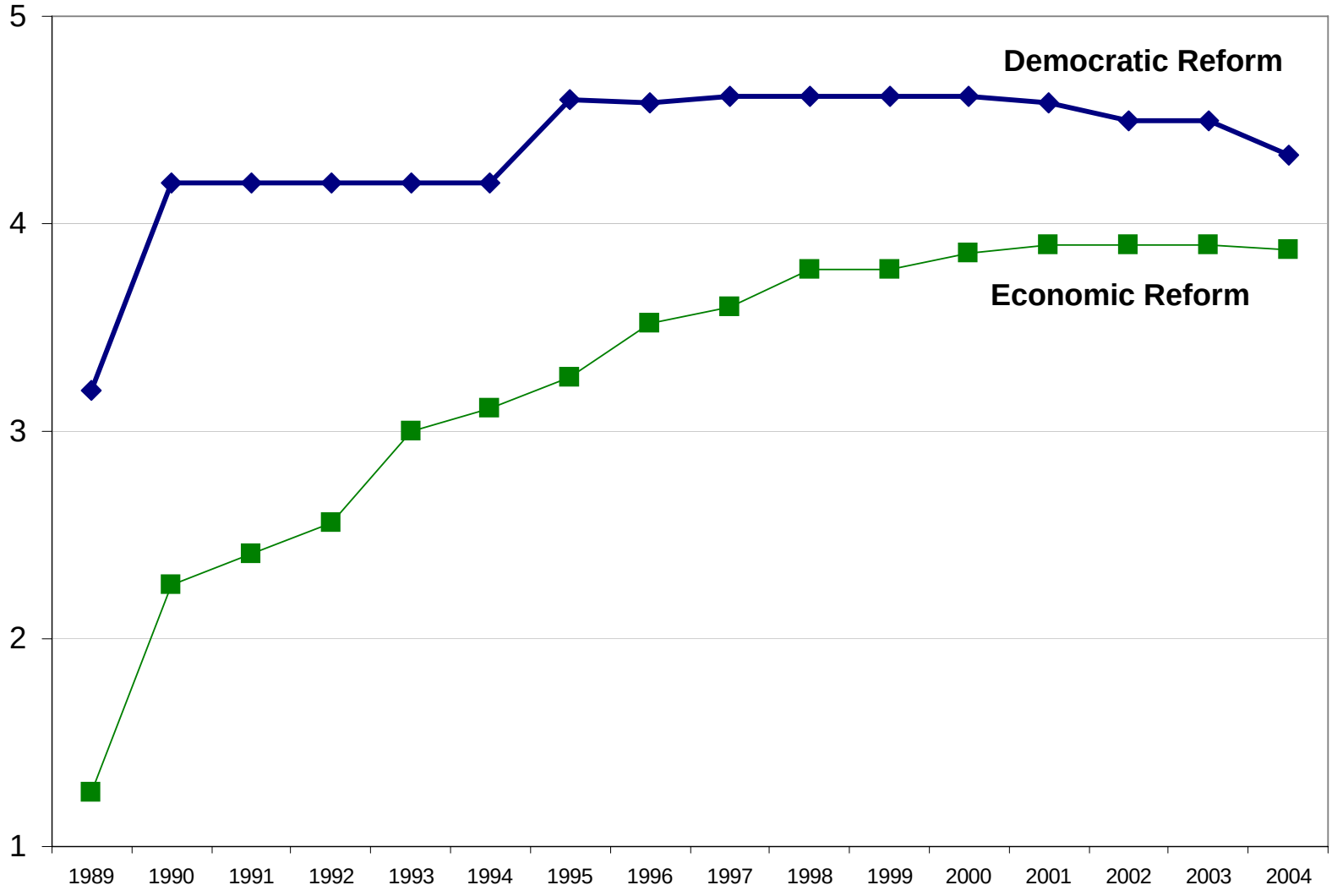
Economic and Democratic Reforms in Slovakia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 3

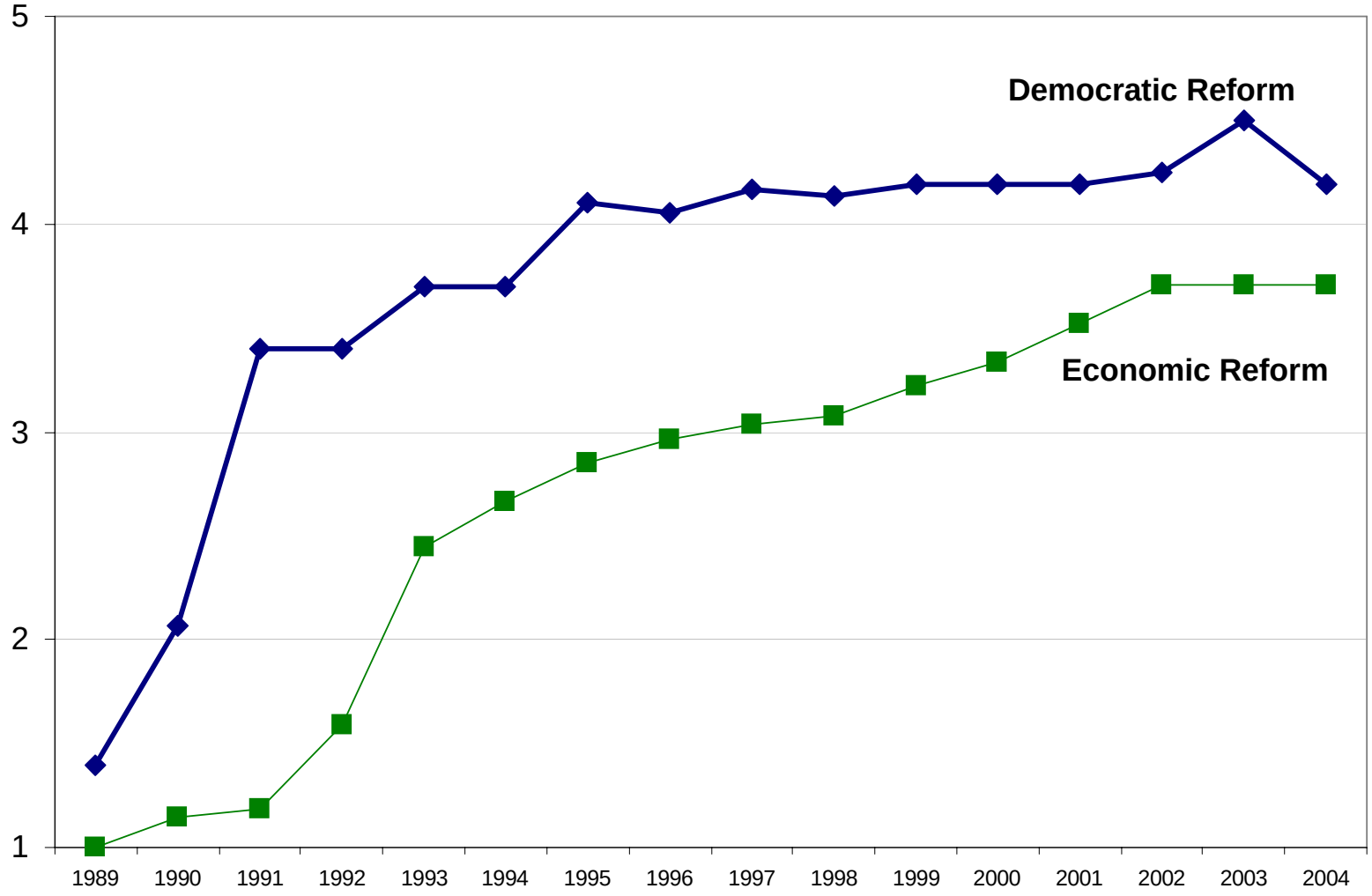
Economic and Democratic Reforms in Poland



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 4

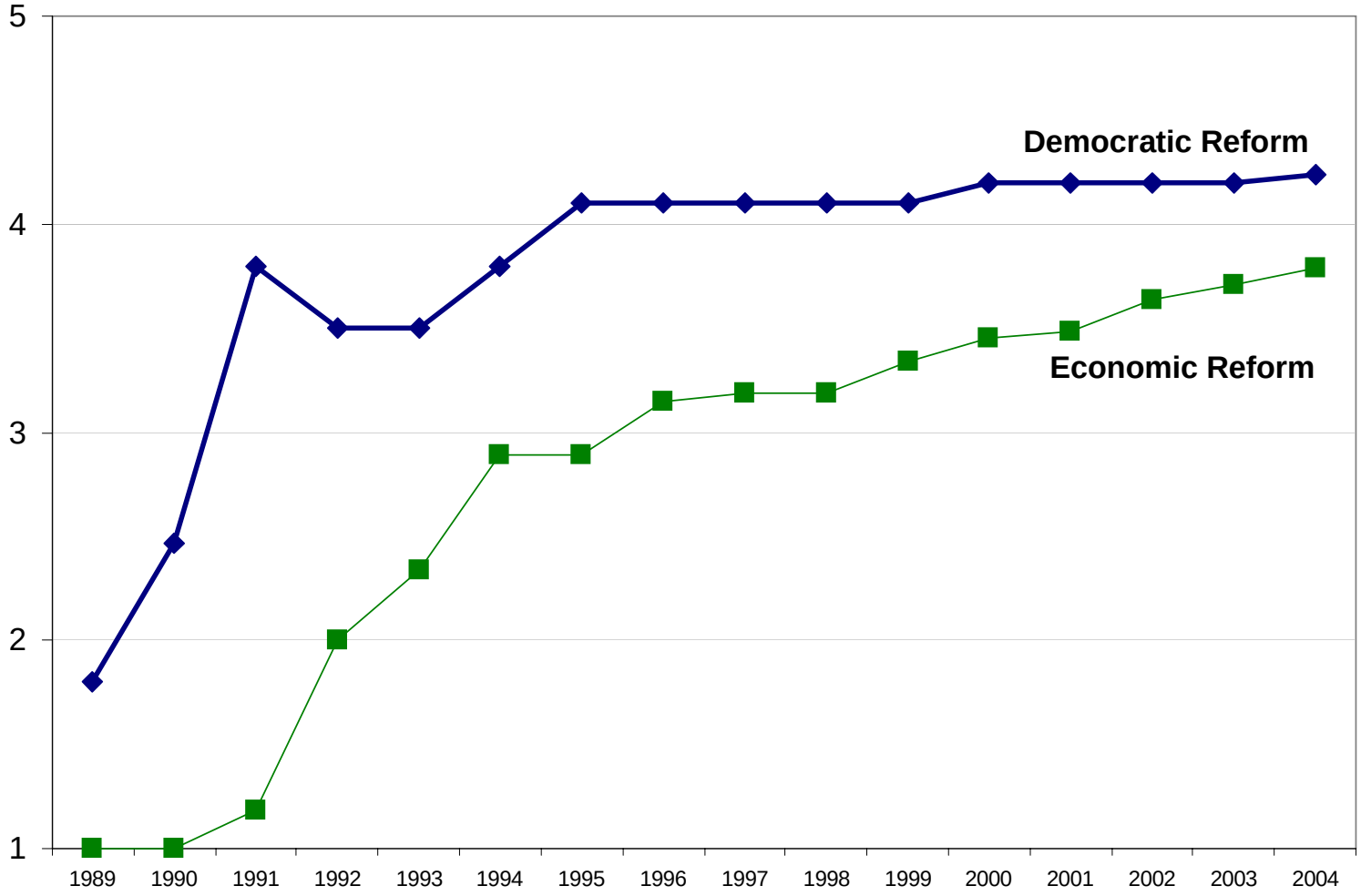
Economic and Democratic Reforms in Lithuania



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 5

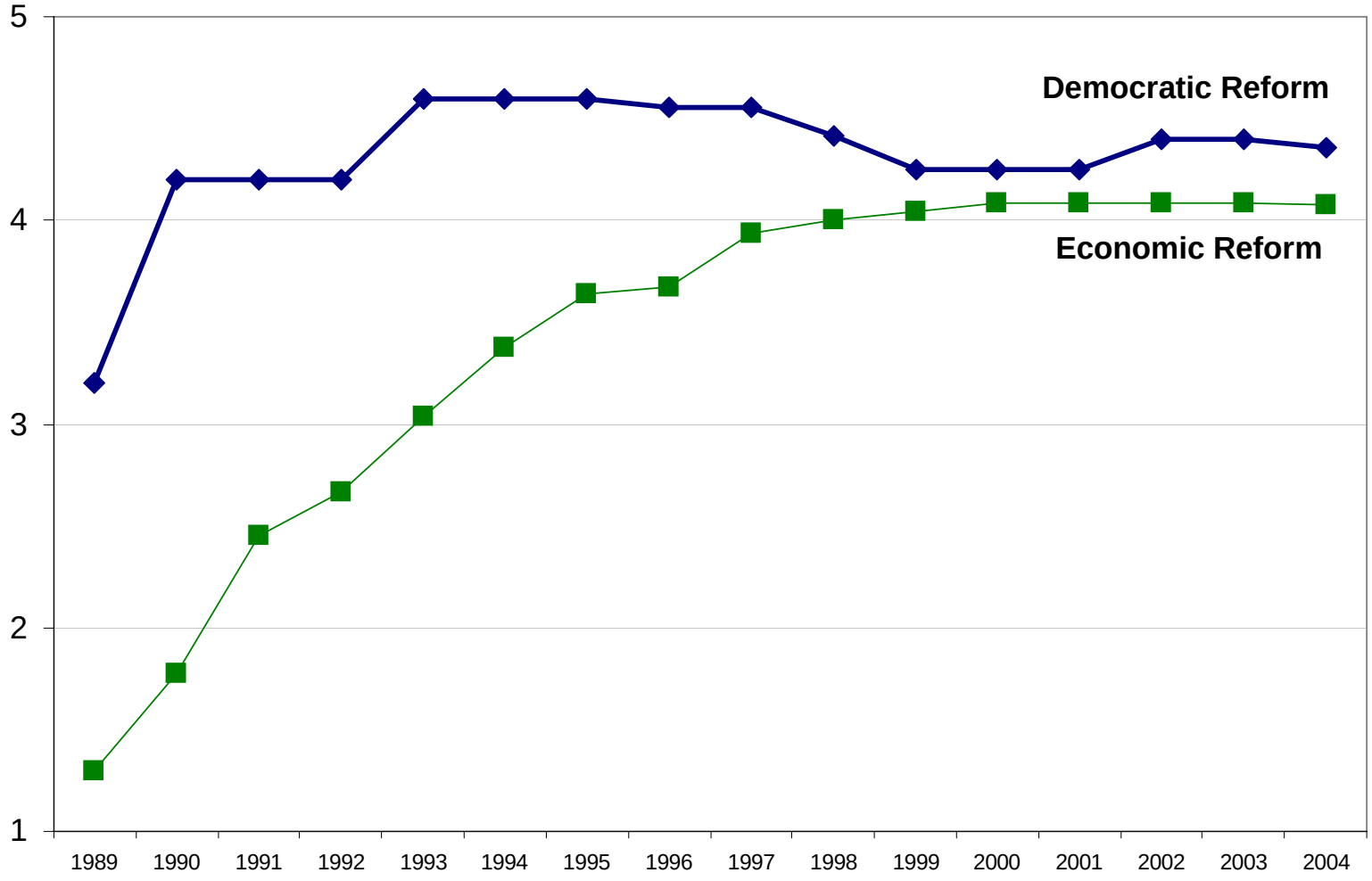
Economic and Democratic Reforms in Latvia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 6

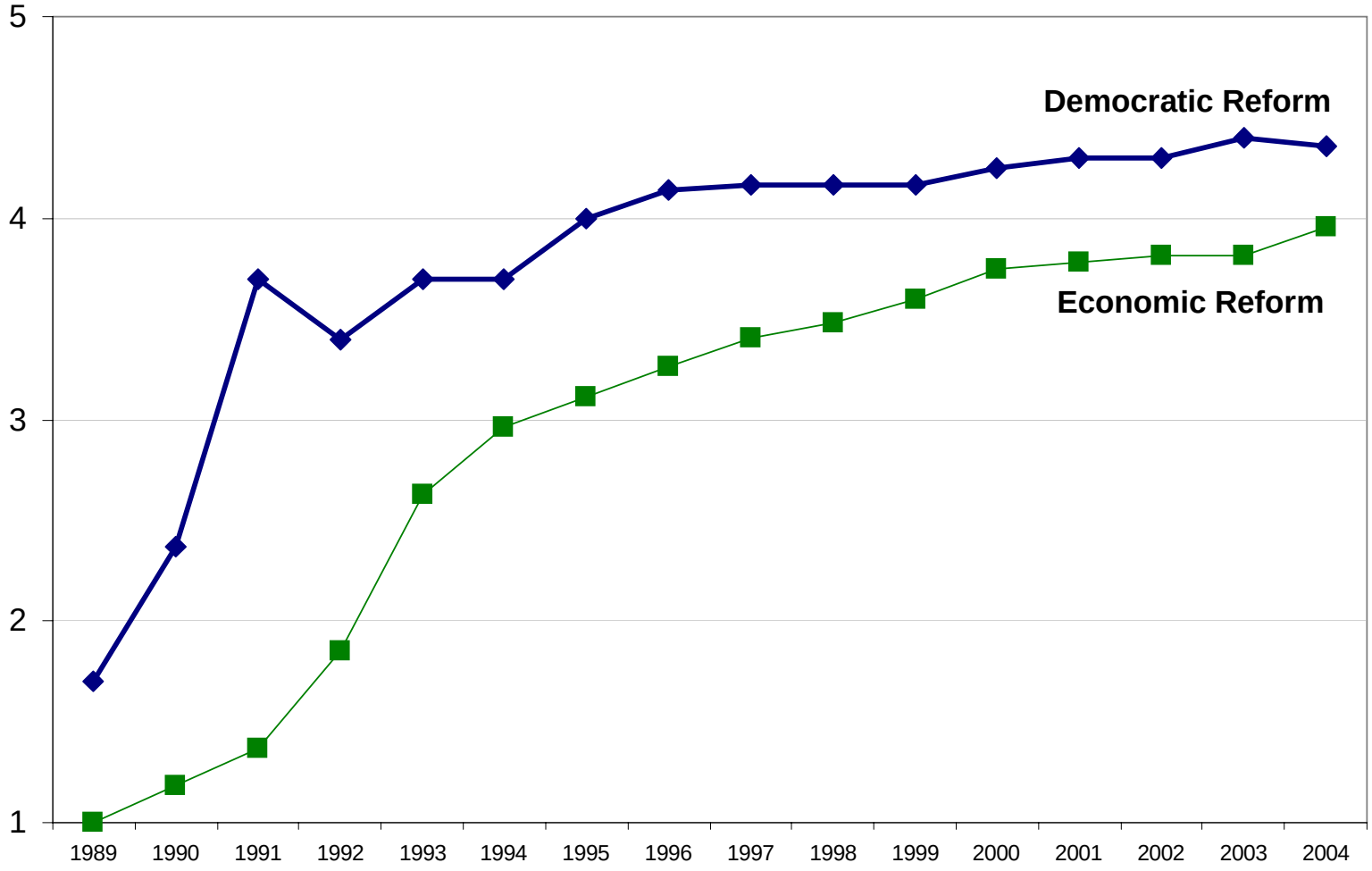
Economic and Democratic Reforms in Hungary



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 7

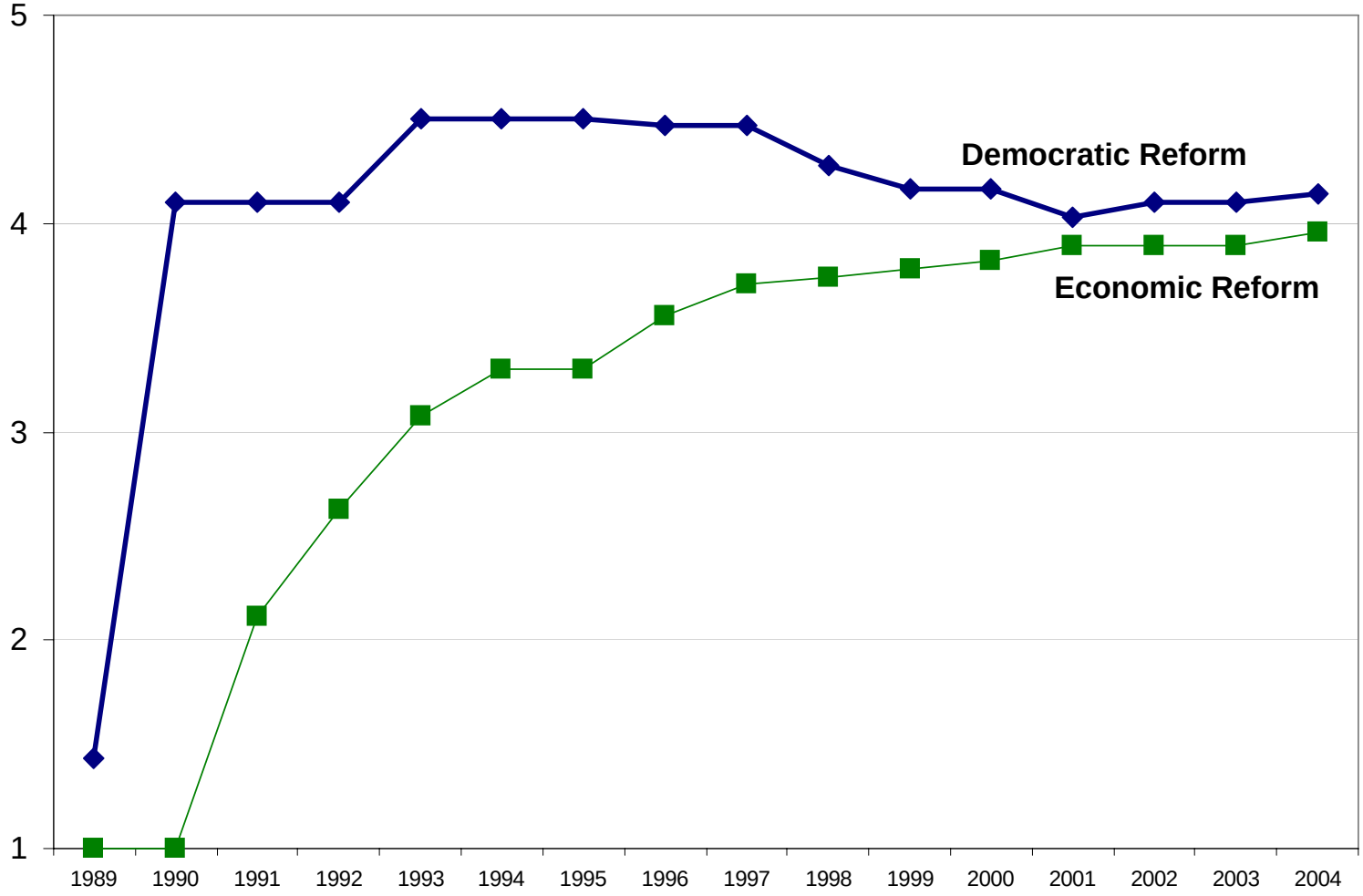
Economic and Democratic Reforms in Estonia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 8

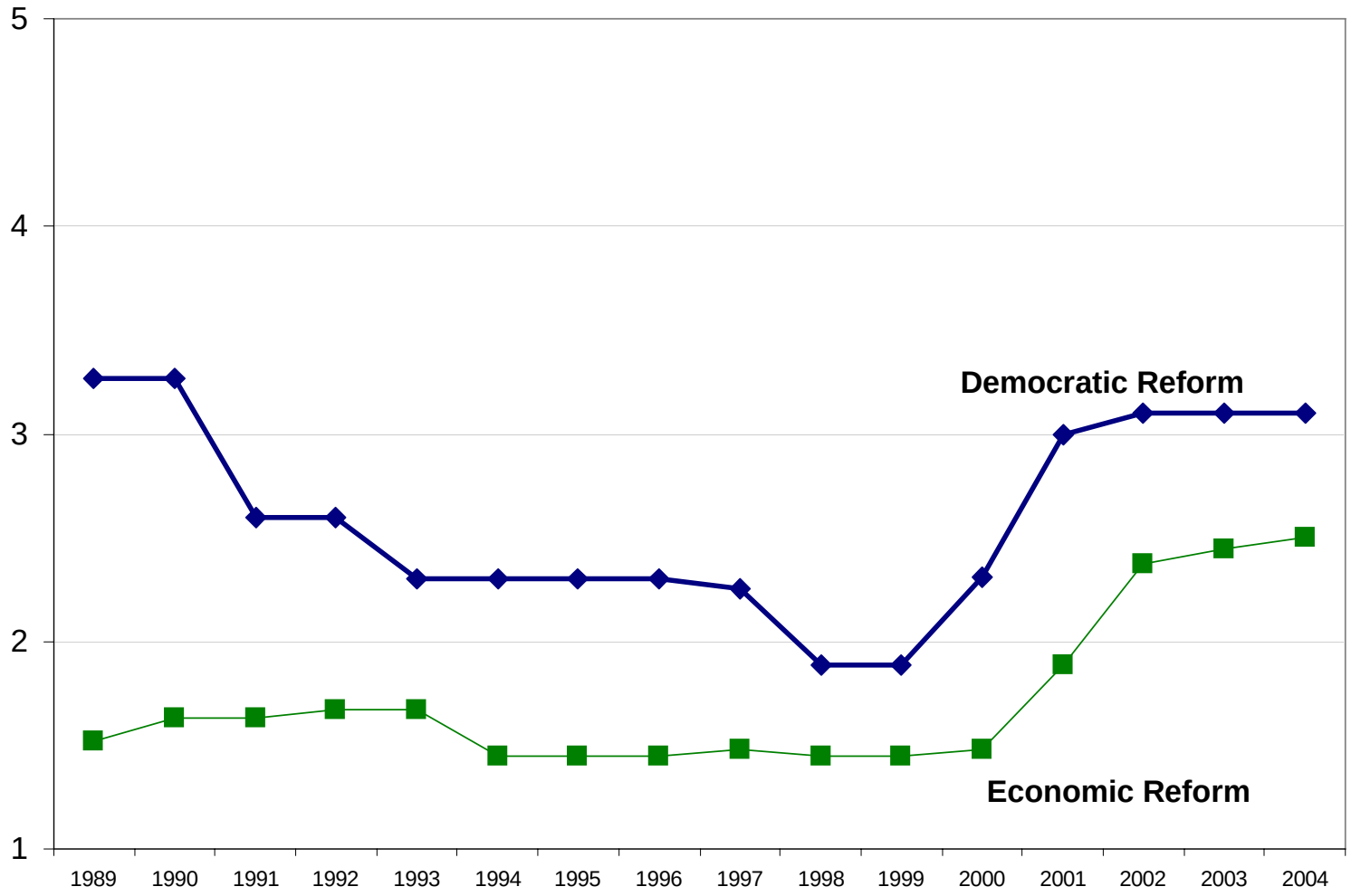
Economic and Democratic Reforms in Czech Republic



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 9

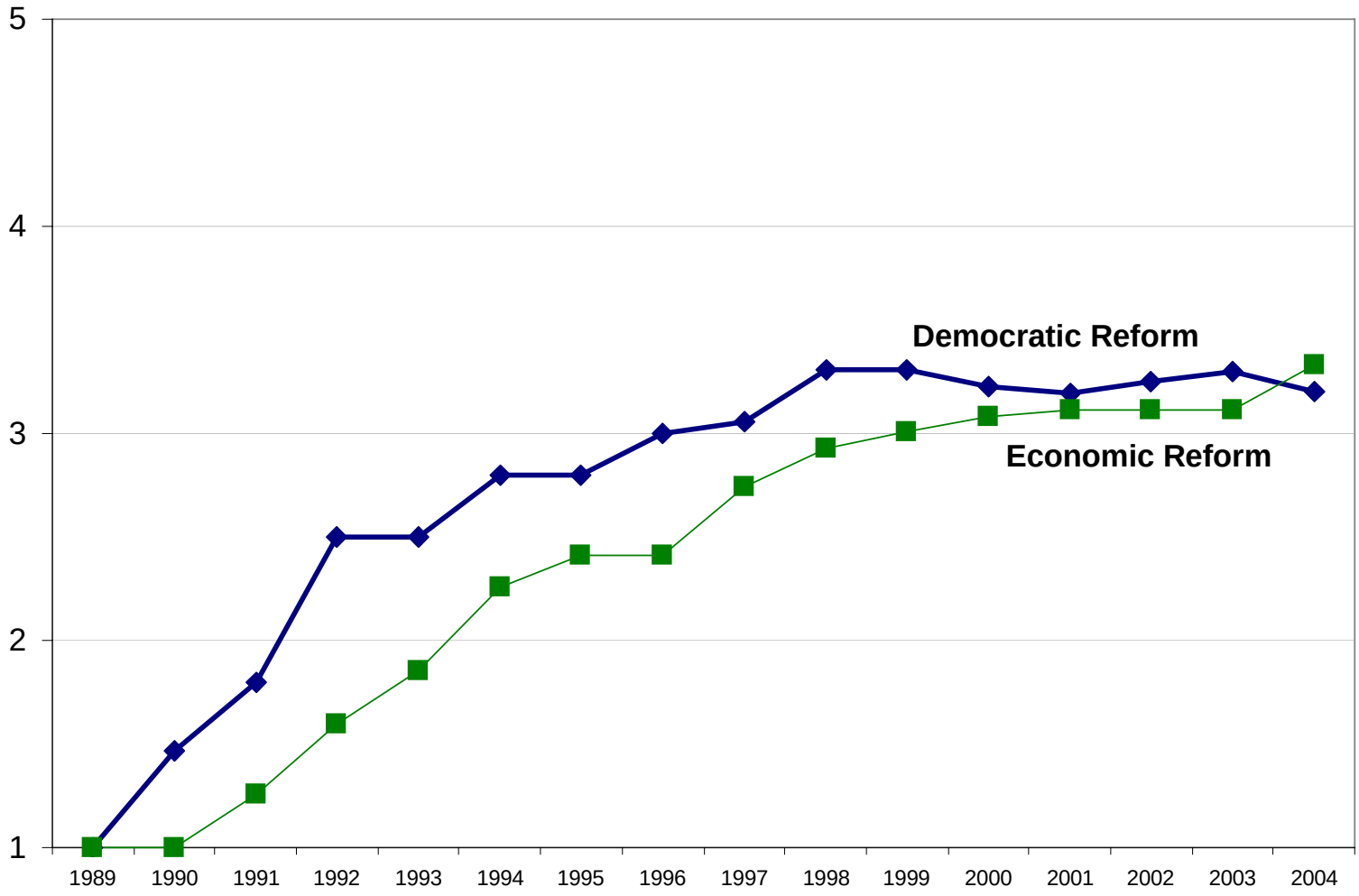
Economic and Democratic Reforms in Serbia and Montenegro



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 10

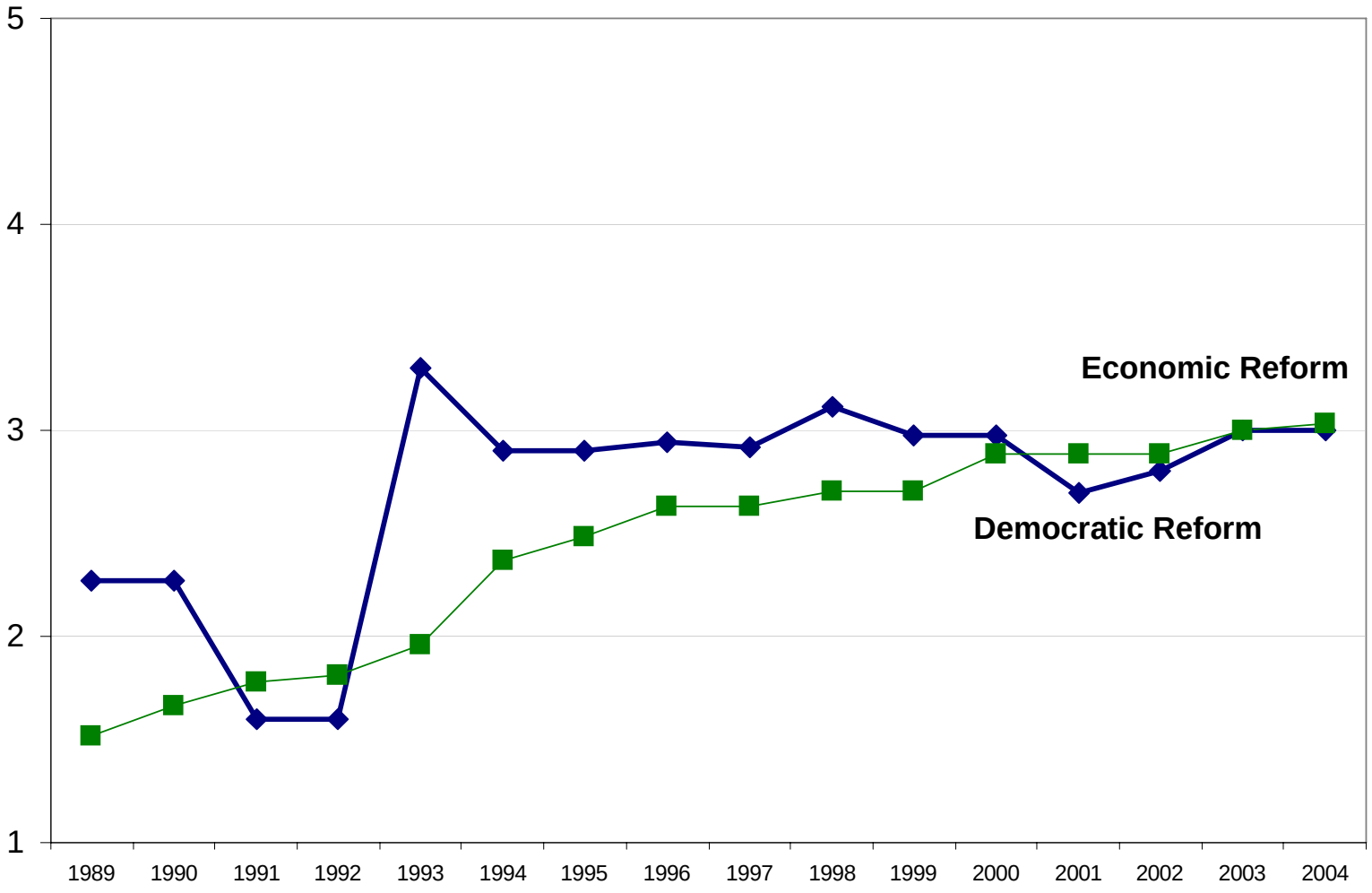
Economic and Democratic Reforms in Romania



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 11

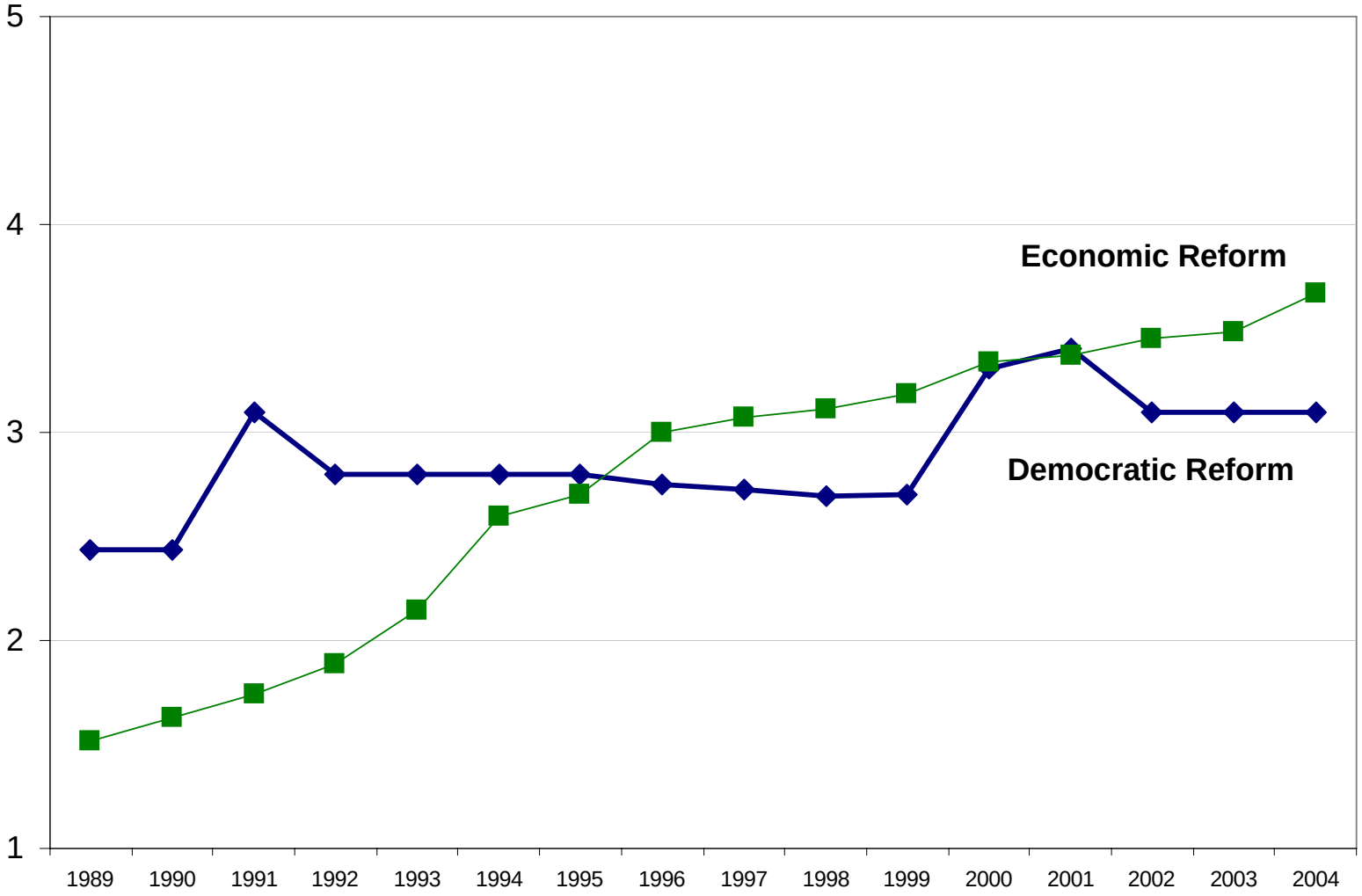
Economic and Democratic Reforms in FYR Macedonia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 12

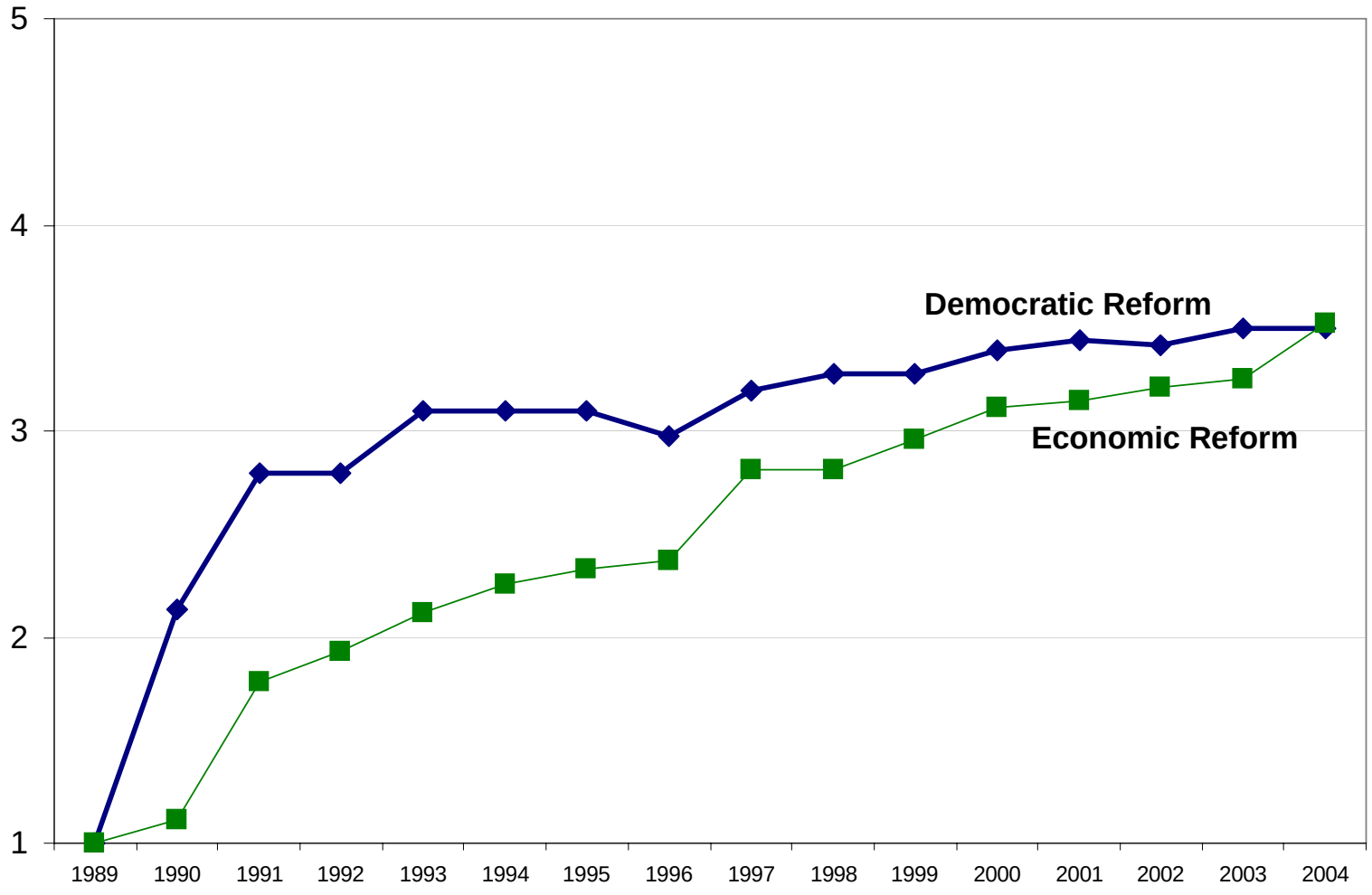
Economic and Democratic Reforms in Croatia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 13

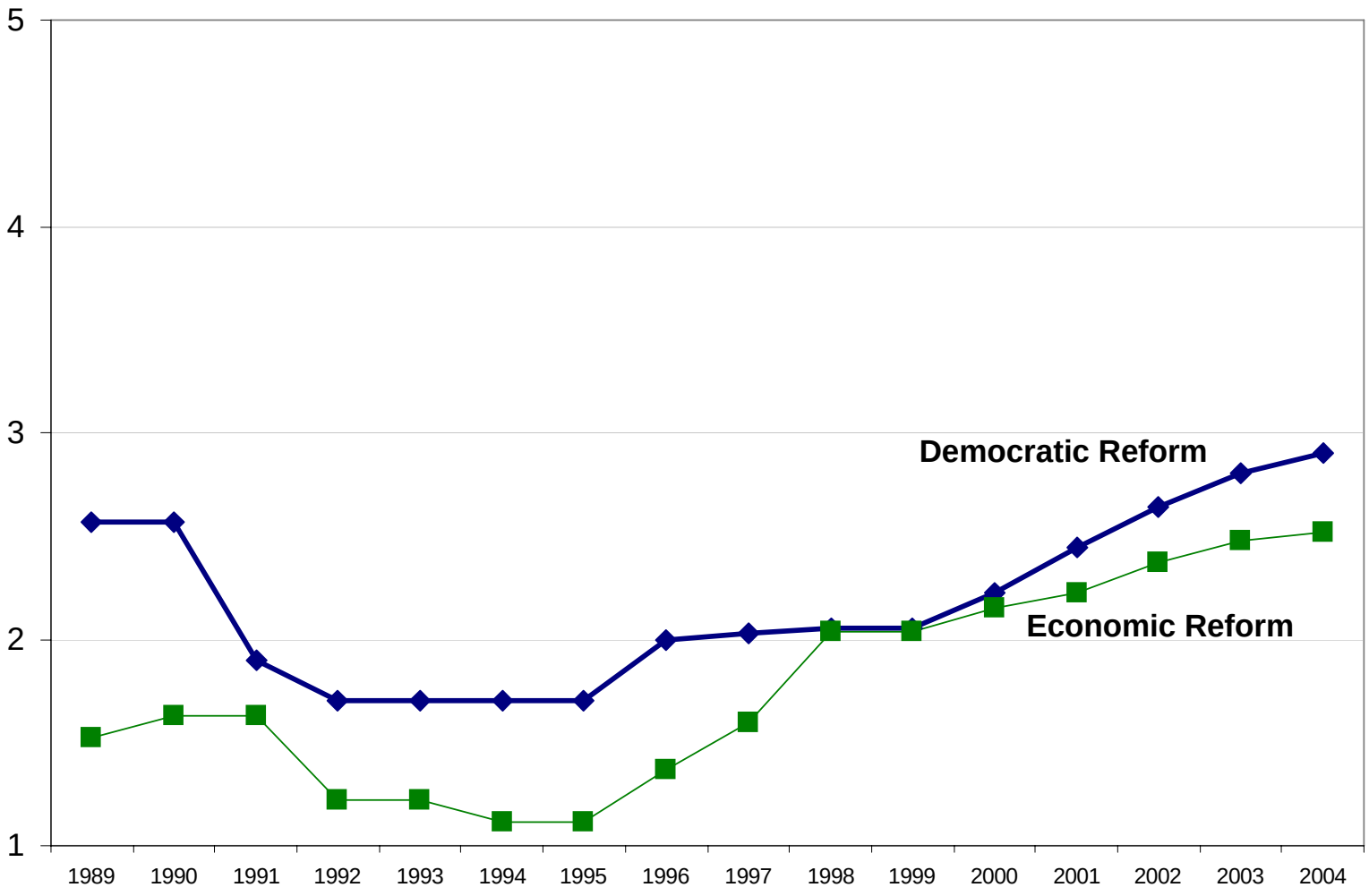
Economic and Democratic Reforms in Bulgaria



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 14

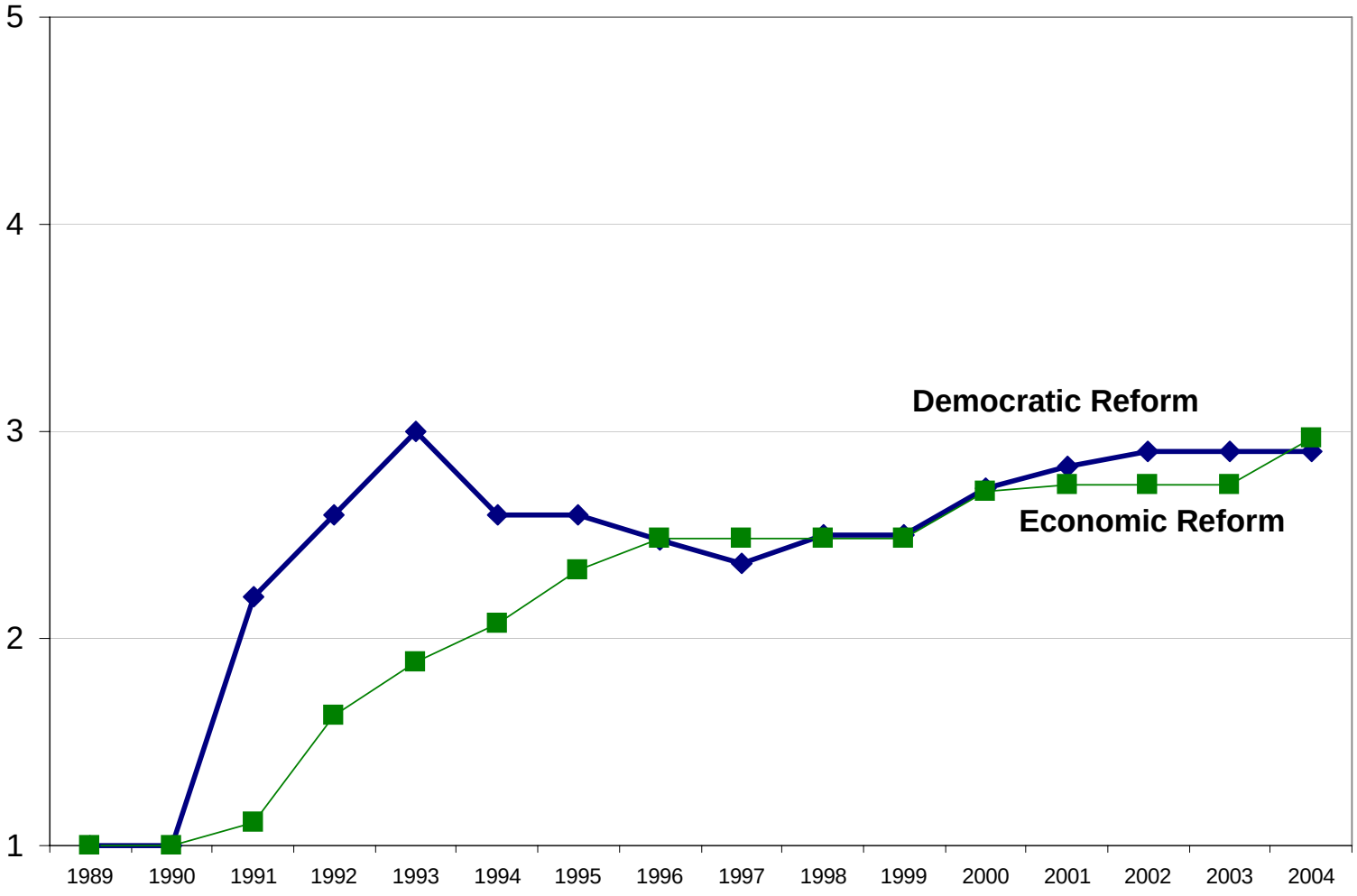
Economic and Democratic Reforms in Bosnia & Herzegovina



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 15

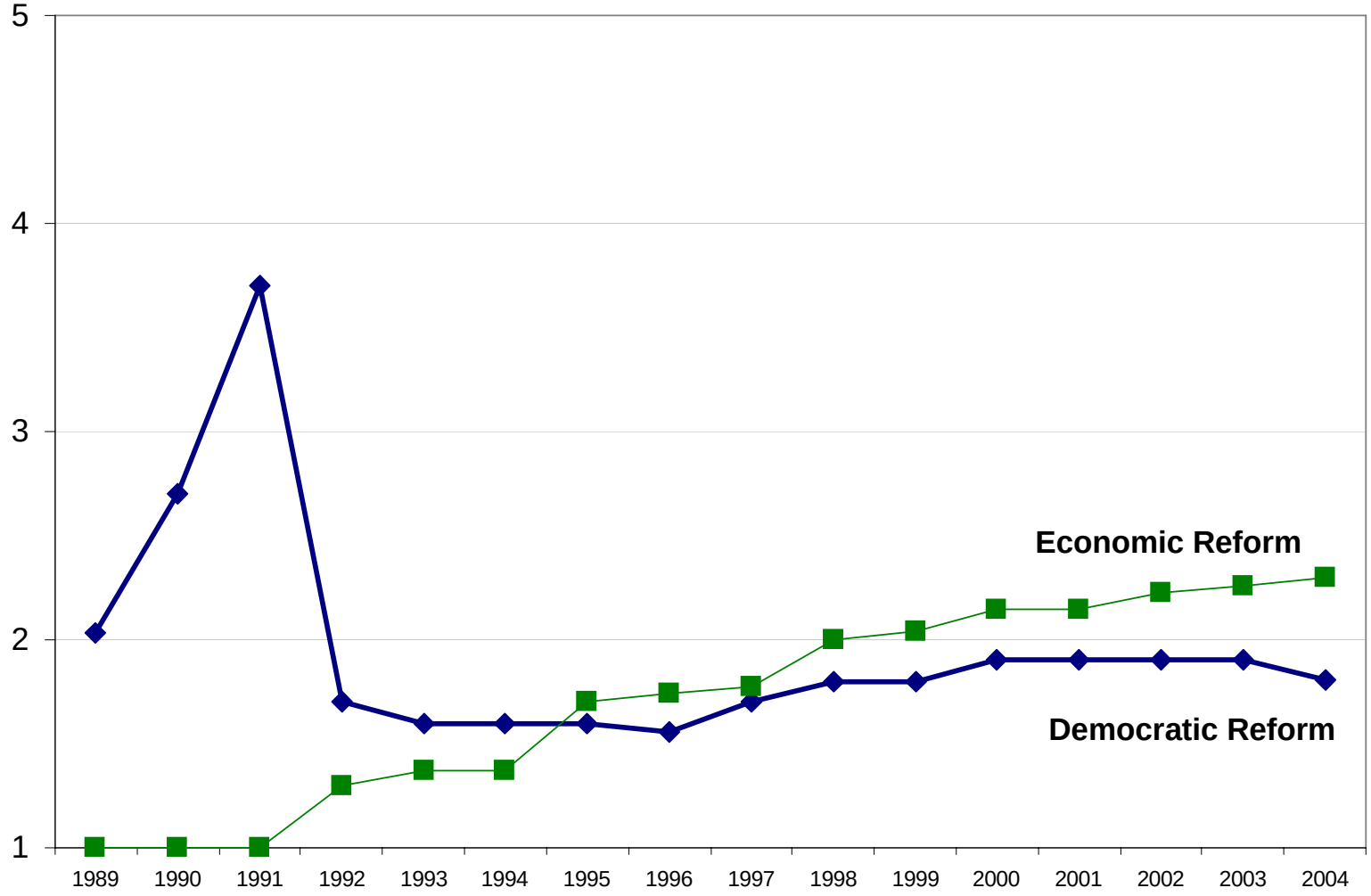
Economic and Democratic Reforms in Albania



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 16

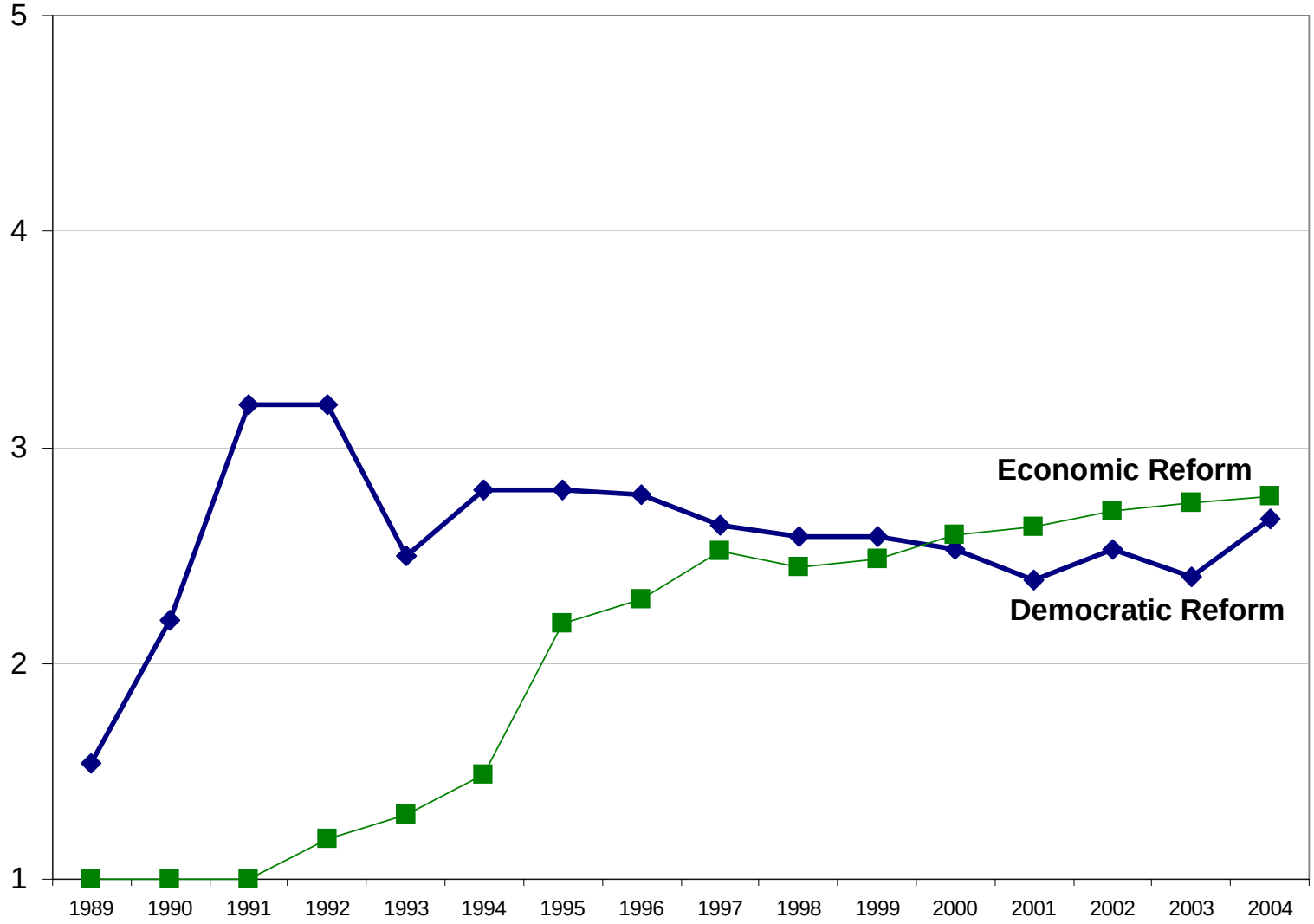
Economic and Democratic Reforms in Tajikistan



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 17

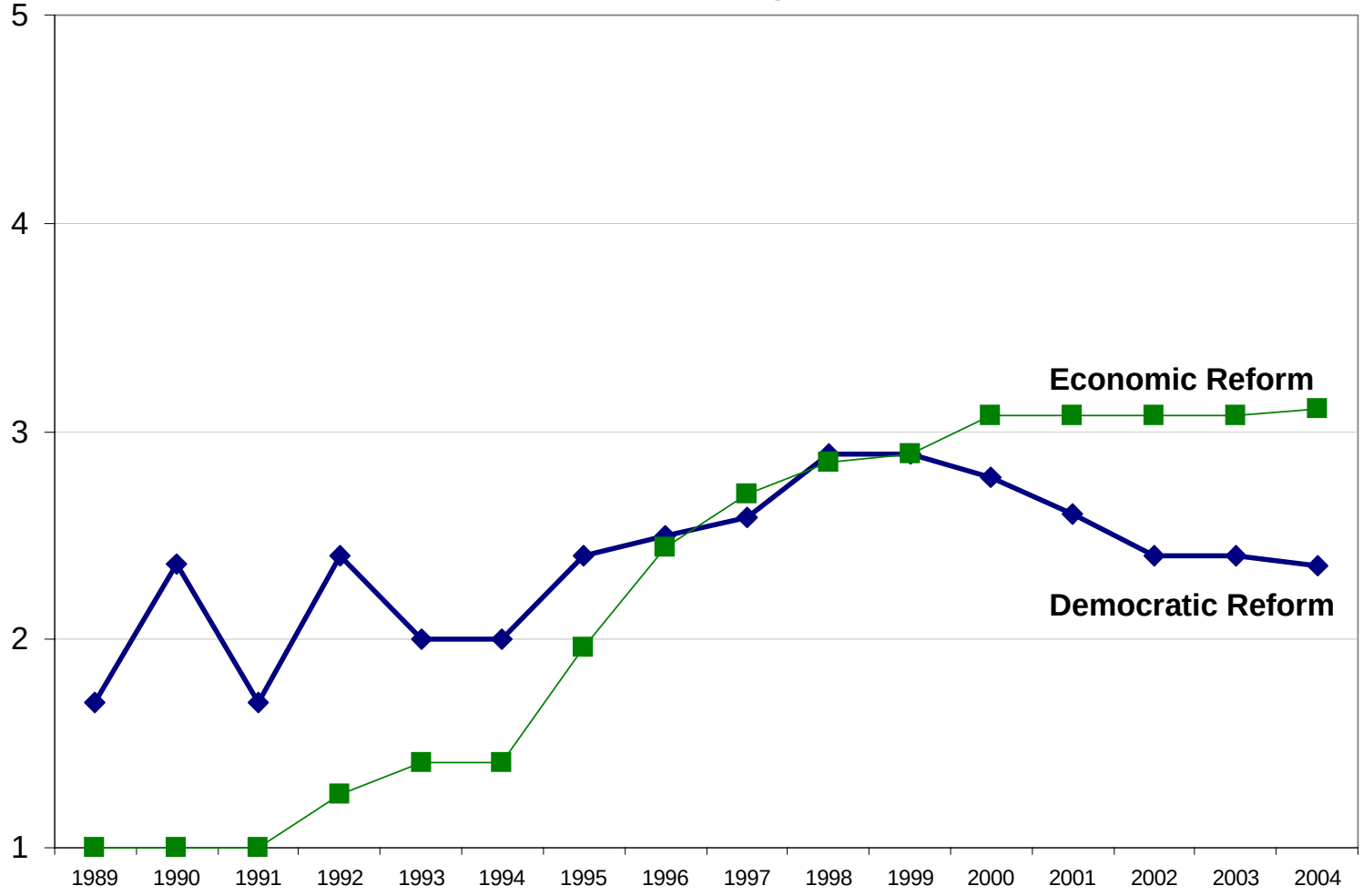
Economic and Democratic Reforms in Ukraine



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 18

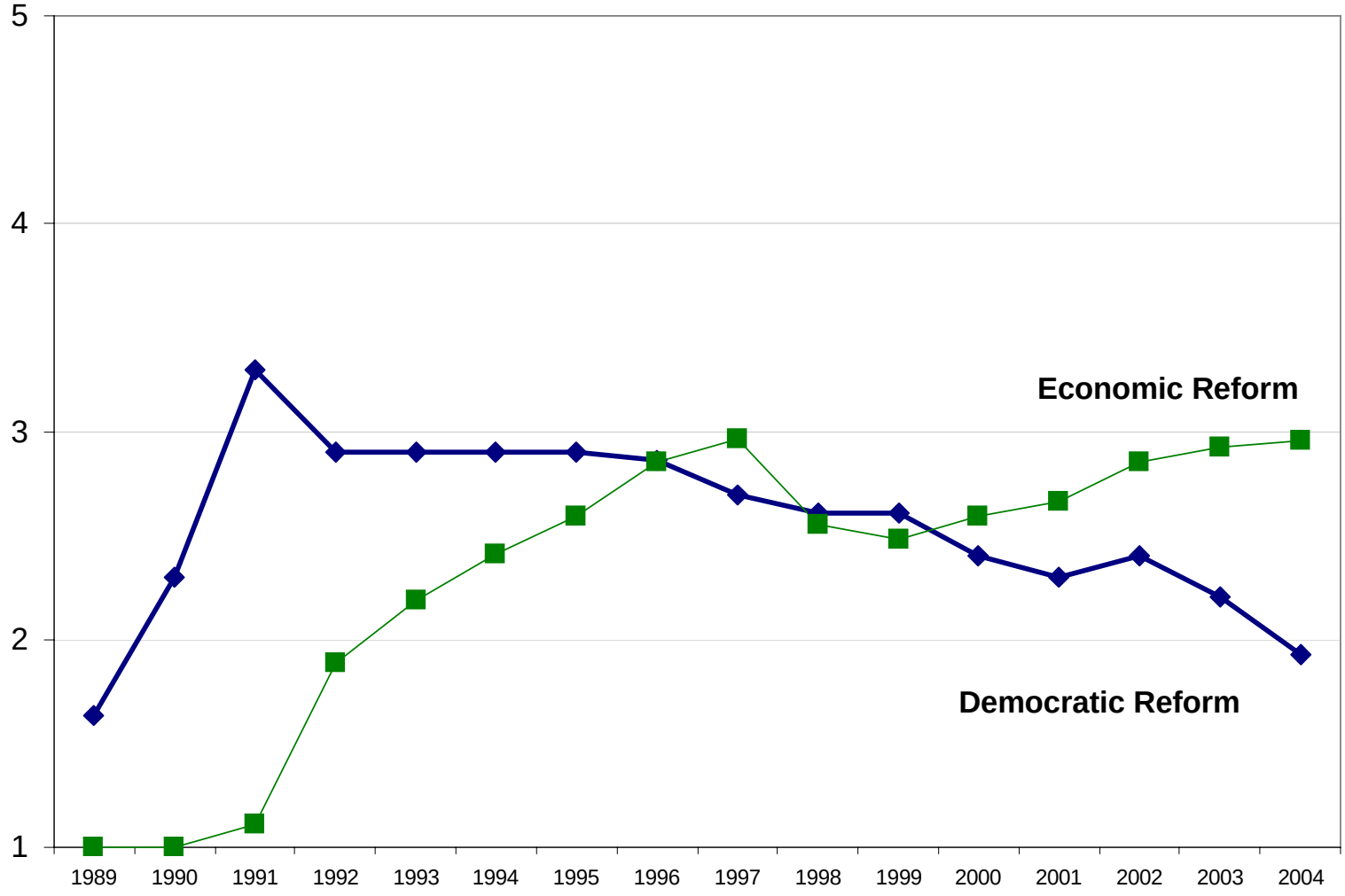
Economic and Democratic Reforms in Georgia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 19

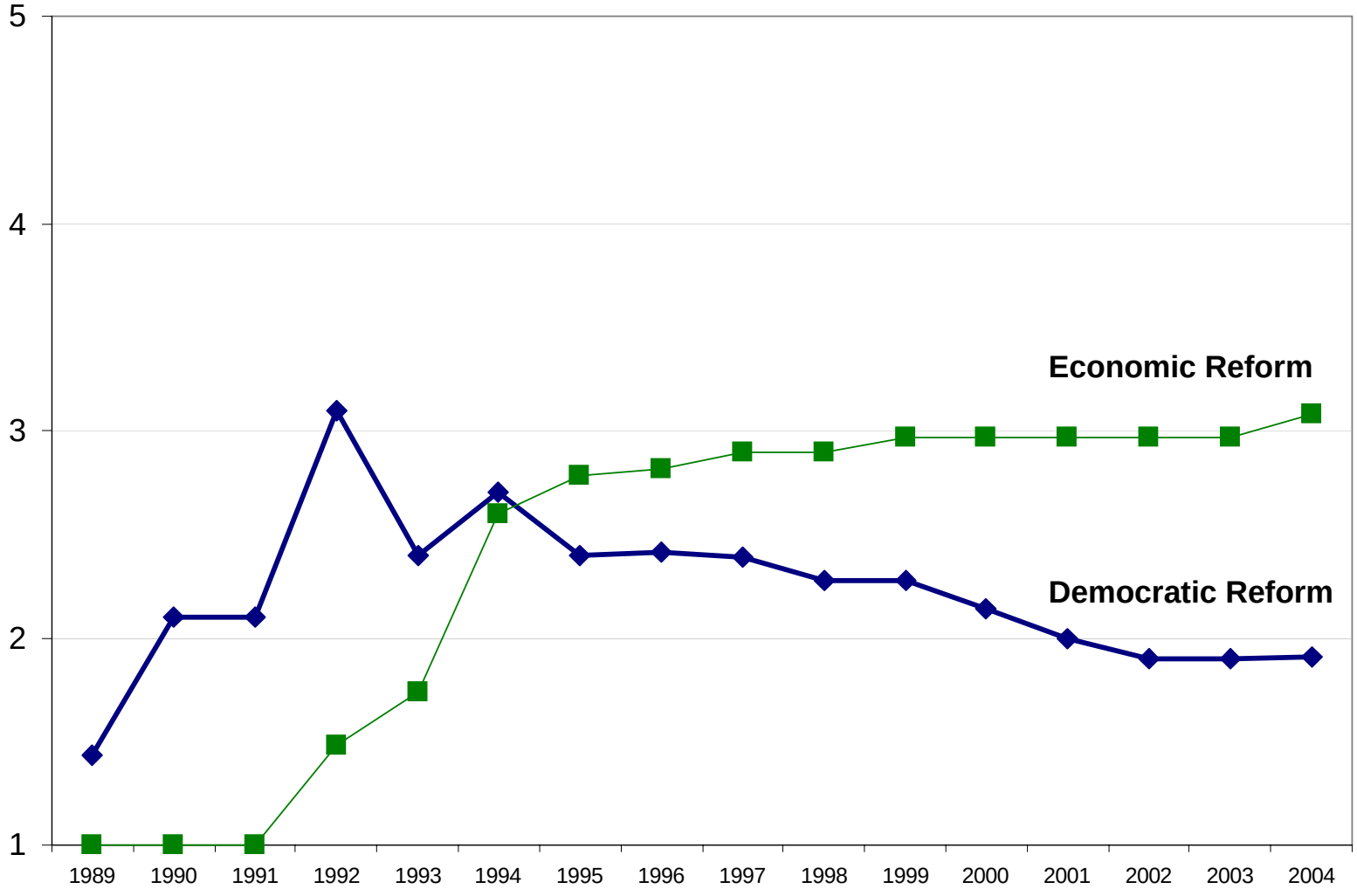
Economic and Democratic Reforms in Russia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 20

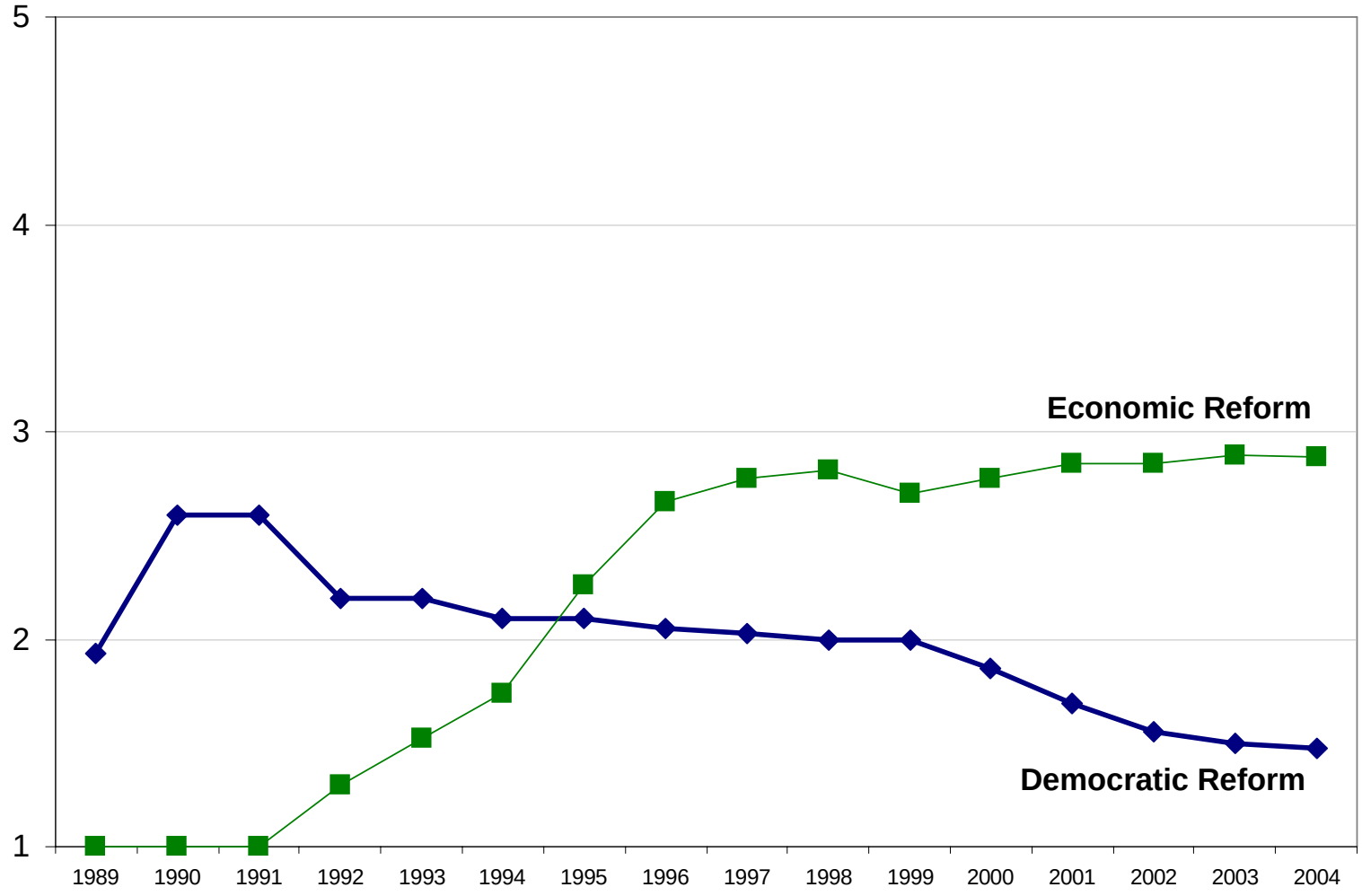
Economic and Democratic Reforms in Kyrgyzstan



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 21

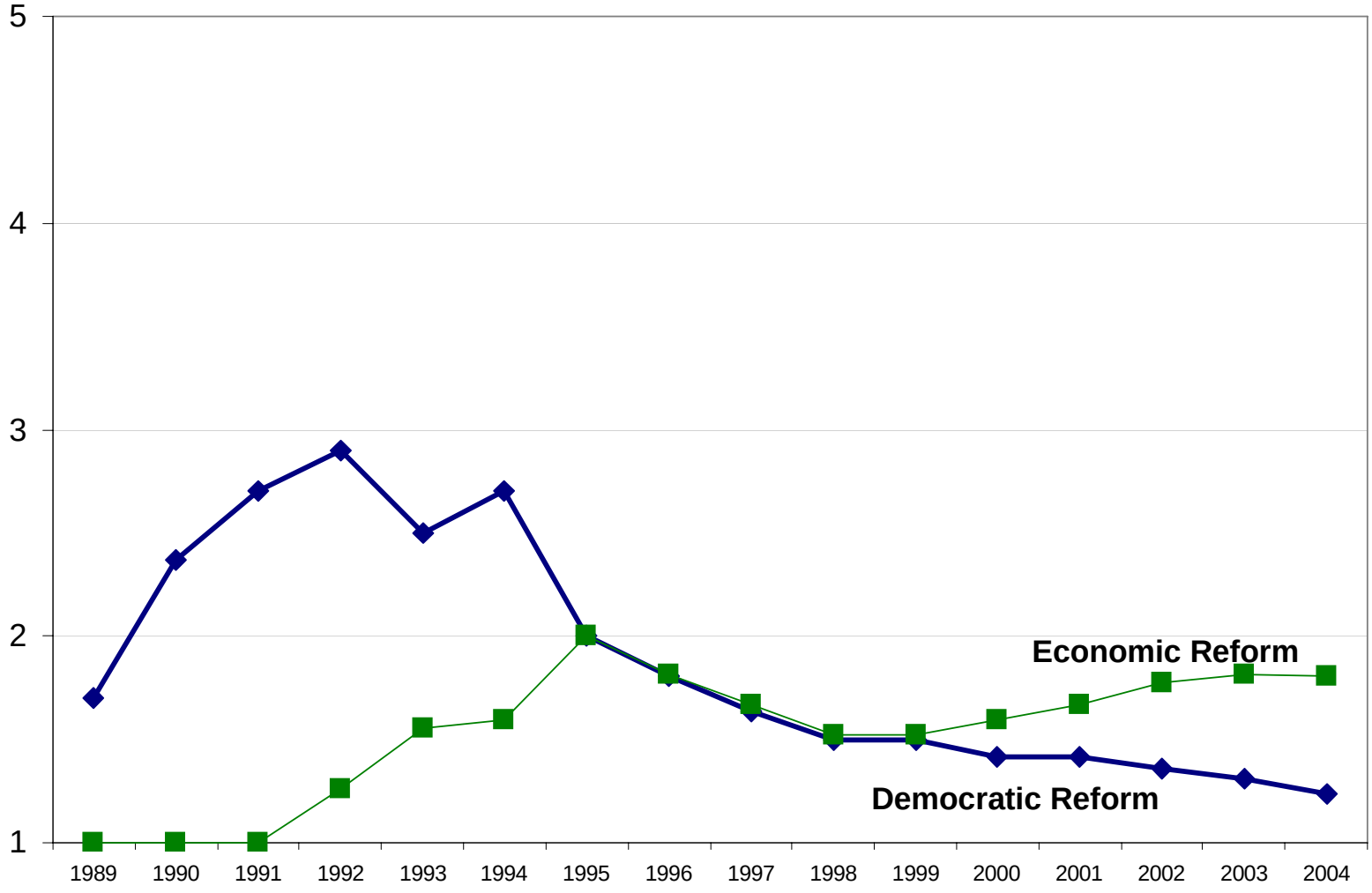
Economic and Democratic Reforms in Kazakhstan



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 22

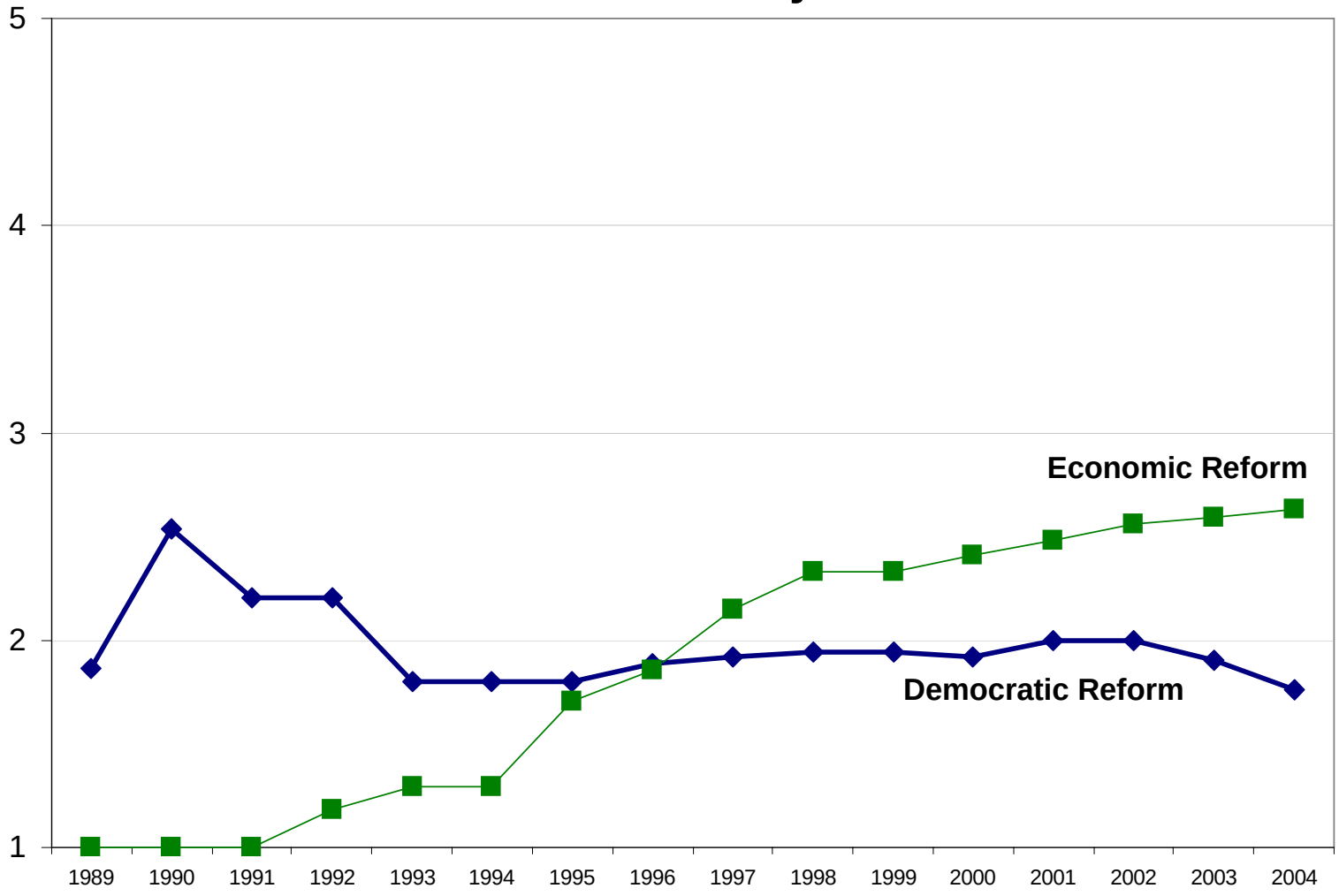
Economic and Democratic Reforms
Belarus



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 23

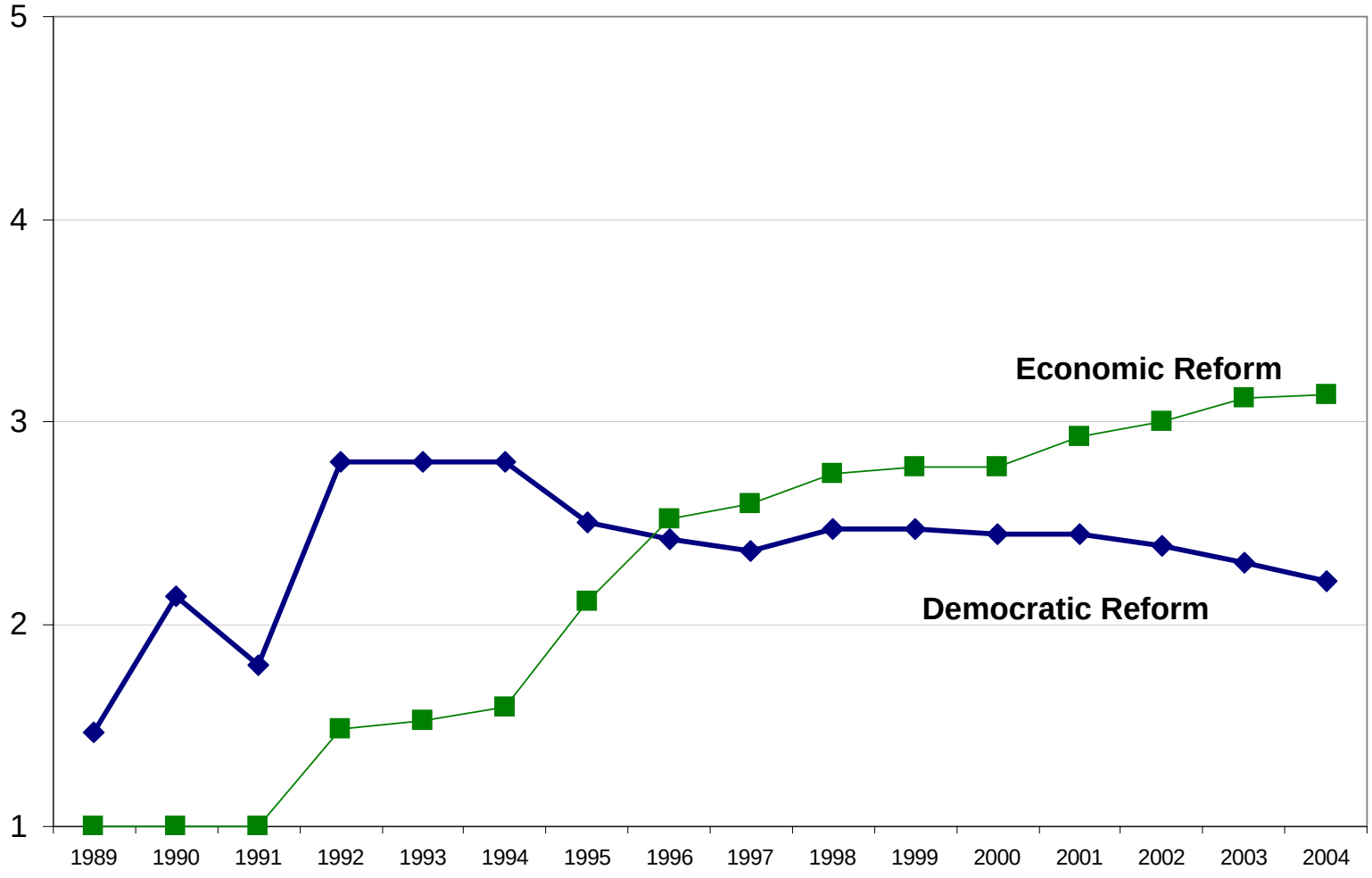
Economic and Democratic Reforms in Azerbaijan



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 24

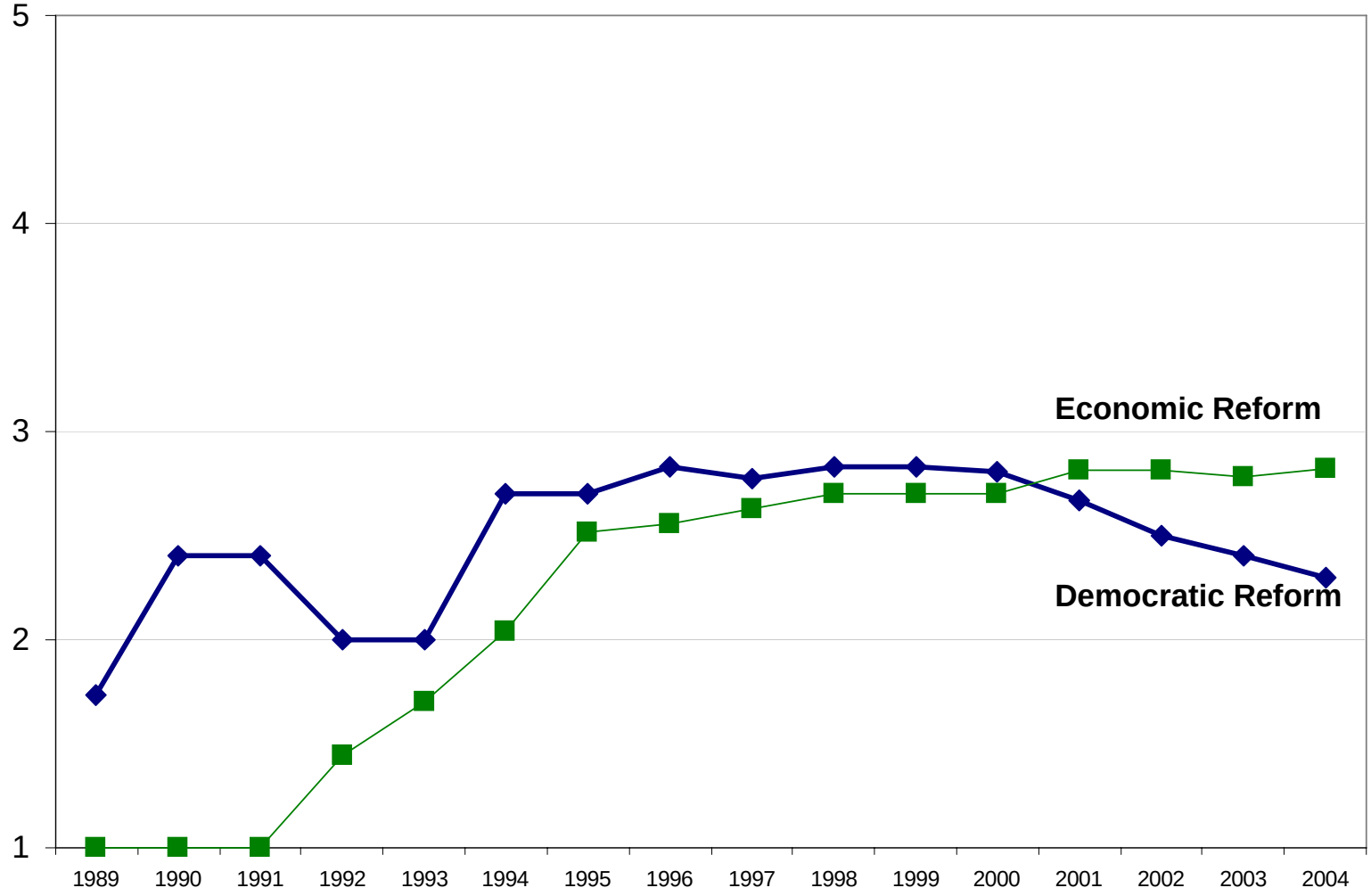
Economic and Democratic Reforms in Armenia



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 25

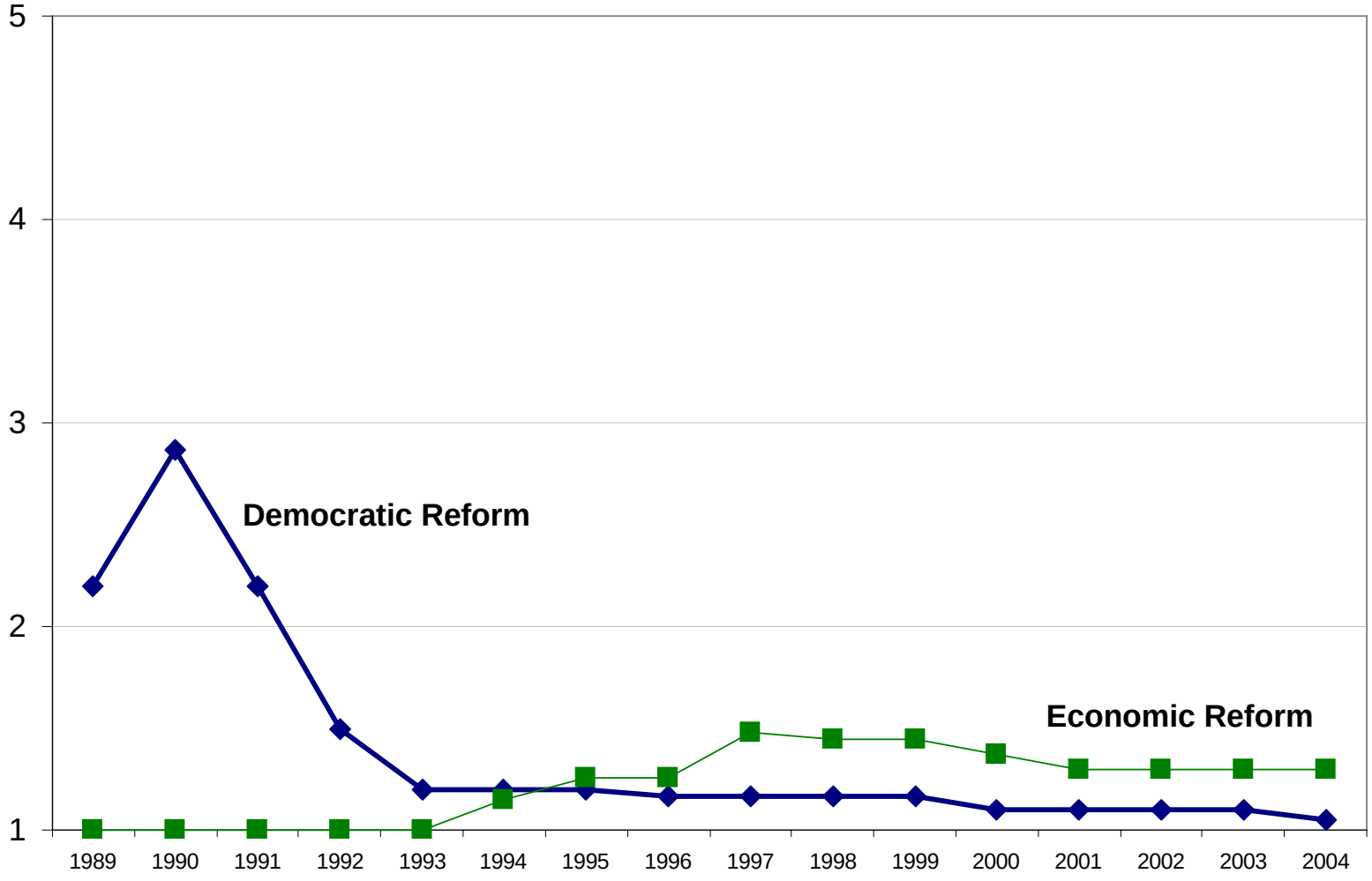
Economic and Democratic Reforms in Moldova



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

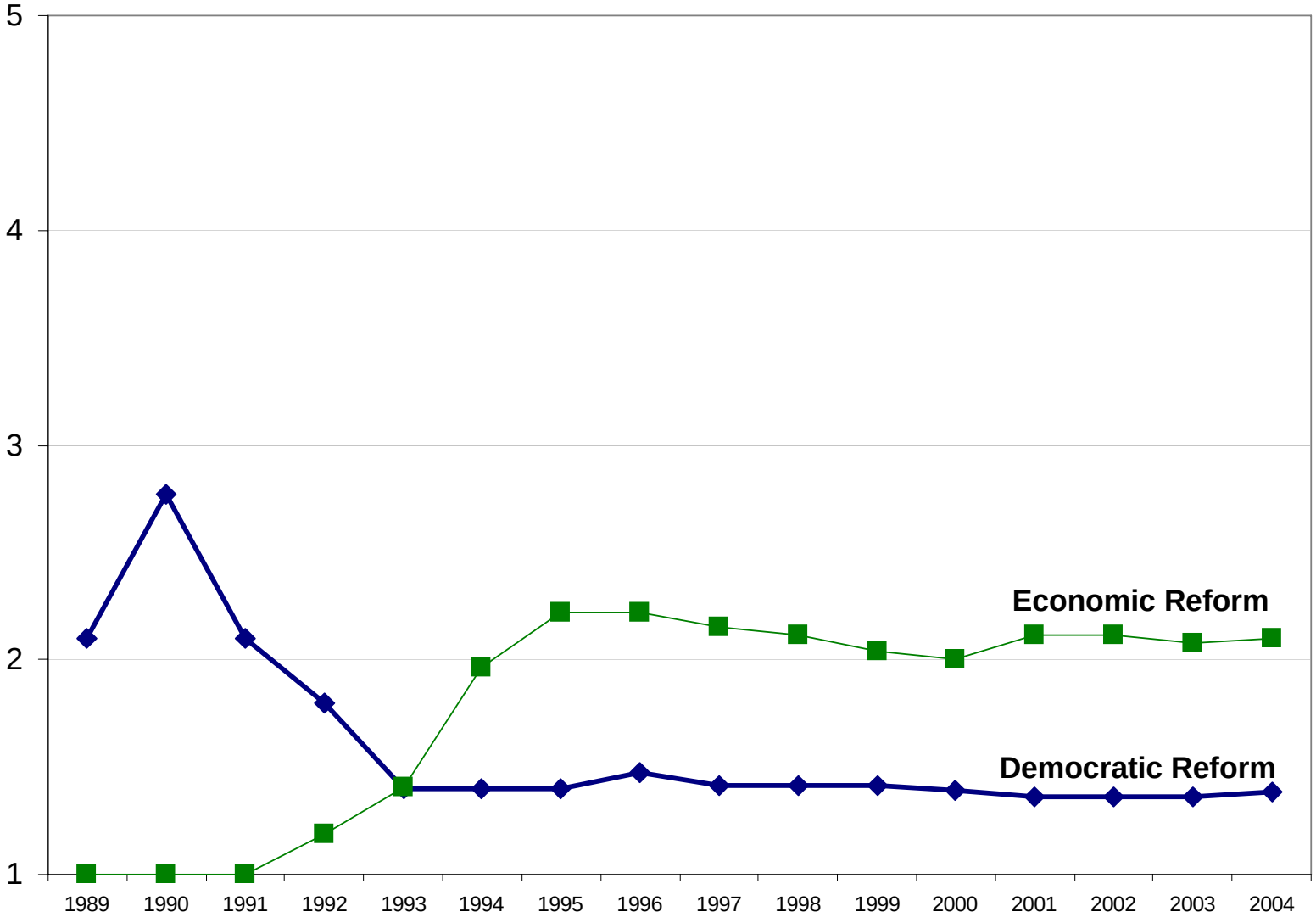
Figure 26

Economic and Democratic Reforms in Turkmenistan



Ratings are based on a 1 to 5 scale, with 5 representing most advanced. USAID, drawing from Freedom House, *Nations in Transit 2004 (2005)* & *Freedom in the World 2005*; and EBRD, *Transition Report 2004* (November 2004).

Figure 27 **Economic and Democratic Reforms in Uzbekistan**



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Bibliography

Barro, Robert. "Inequality and Growth in a Panel of Countries." *Journal of Economic Growth*. Volume 5, no. 1 (March 2000).

Bueno de Mesquita, Bruce and George W. Downs. "Development and Democracy." *Foreign Affairs*. Volume 84, no. 5 (September/October 2005).

EBRD (European Bank for Reconstruction and Development). *Transition Report 2004*. London (November 2004).

Falcetti, Elisabetta, T. Lysenko, and P. Sanfey. "Reforms and growth in transition: re-examining the evidence." *EBRD Working Paper*. No. 90 (March 2005).

Falcetti, E., M. Raiser, and P. Sanfey. "Defying the odds: initial conditions, reforms, and growth in the first decade of transition." *Journal of Comparative Economics.* Vol. 30 (2002): 229-250.

Fidrmuc, Jan. "Economic reform, democracy and growth during post-communist transition." *European Journal of Political Economy*. Vol. 19 (2003): 583-604.

Freedom House. *Nations in Transit 2005*. New York (2005).

Freedom House. *Freedom in the World 2004-2005*. New York (2005).

Havrylyshyn, O. and R. van Rooden. "Institutions matter in transition but so do policies." *Comparative Economic Studies*. Vol. 45 (2003): 2-24.

Lawson, C. and H. Wang. "Economic transition in central and eastern Europe and the former Soviet Union: which polices worked?" *University of Bath Department of Economics and International Development Working Paper* (2004).

Loukoianova, E. and A. Unigovskaya. "Analysis of recent growth in low-income CIS countries." *IMF Working Paper* No. 151 (2004).

Merlevede, B. "Reform reversals and output growth in transition." *Economics of Transition*. Vol. 11, no. 4 (2003): 649-667.

Milanovic, Branko. *Why did the poorest countries fail to catch up*? Carnegie Working Paper, No. 62. Carnegie Endowment for International Peace. (November 2005).

Persson, Torsten. "Forms of Democracy, Policy and Economic Development." Stockholm: Stockholm University, Institute for International Economic Studies. Unpublished working paper available at http://irpshome.ucsd.edu/faculty/jwallack/persson_2004.pdf.

Przeworski, Adam, and Fernando Limongi. "Political regimes and Economic Growth." *Journal of Economic Perspectives*. Volume 7, no. 3 (1993): 51-69.

Radulescu, R. and D. Barlow. “The relationship between policies and growth in transition countries.” *Economics of Transition*. Vol. 10, no. 3 (2002): 719-745.

Rodrik, Dani, and Romain Wacziarg. “Do Democratic Transitions Produce Bad Economic Outcomes?” *American Economic Association Papers and Proceedings*. Volume 95, no. 2 (May 2005).

Staehr, K. “Reforms and economic growth in transition economies: Complementarity, sequencing and speed.” *Bank of Finland Institute for Economies in Transition Discussion Paper 1* (2003).

Tavares, Jose, and Romain Wacziarg. “How Democracy Affects Growth?” *European Economic Review*. Volume 45 (2001): 1341-1378.

USAID/E&E/PO (U.S. Agency for International Development, Europe & Eurasia Bureau, Program Office). *Monitoring Country Progress in Eastern Europe and Eurasia*, No. 9 (April 2005).

UNICEF (United Nations Children’s Fund). *Social Monitor 2004*. New York (2004).

World Bank. *World Development Indicators*. Washington, D.C. (2005).