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Lewis Karstensson

Emeritus Associate Professor of Economics, UNLV, lkarsten57@gmail.com

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It is not the Government's duty to supplant the efforts of private enterprise to find markets, or of individuals to find jobs. The people do expect the Government, however, to create and maintain conditions in which the individual business man and the individual job-seeker have a chance to succeed by their own efforts.*

Harry S. Truman (1946)

IN CLASSICAL AND KEYNESIAN TIMES:
THE TWENTIETH CENTURY ECONOMY REVISITED

by

Lewis Karstenson
Emeritus Associate Professor of Economics
University of Nevada, Las Vegas

John Maynard Keynes wrote *The General Theory of Employment, Interest, and Money* in 1935 with the world in the midst of the Great Depression.¹ In this rather bold and monumental work he put forward his theory of aggregate demand, as an alternative to the Classical theory, in an attempt to explain the contemporary problematic behavior of the economy.

The Classical theory was that associated with James Mill and David Ricardo, and their followers, including John Stuart Mill, Alfred Marshall, Francis Ysidro Edgeworth, and Arthur Cecil Pigou.² Capitalism, in their view, was an essentially stable form of economic organization. The unfettered market would cultivate growth in production, more-or-less full-employment, and stable average price levels over the long run. While temporary periods of instability might occur because of changes in demand and/or supply conditions in particular

markets, they would not persist over long periods of time. An insatiable demand for goods and services, a production-generated sufficiency of purchasing power, and a regime of flexible relative prices in product, resource, and money markets, would force the economy back to its long-term stable growth path. The public policy corollary to this view is a neutral national stabilization policy, a policy of *laissez faire*. Such a policy position implies a balanced-budget fiscal policy together with a monetary policy corresponding to something like the Friedman growth-based monetary rule.³

The position of Keynes, largely contrary to this view, held capitalism to be essentially an unstable form of economic organization.⁴ The performance of the economy at any point in time depends on aggregate demand, total spending for newly produced goods and services. Aggregate demand, in turn, responds largely to two of its central components, household consumption spending and business sector investment spending. Variation in these spending streams produces instability in the economy. On the one hand, deficient aggregate demand resulting from reduced consumption and/or investment spending leads to reduced levels of economic activity -- falling production, rising unemployment, and falling average prices -- in a word, recession. On the other hand, excessive aggregate demand resulting from increased consumption and/or investment spending in a period of full-employment results in a rapidly rising average price level, inflation. And no automatic corrective for either problem exists. The public policy corollary to this view necessitates a countercyclical national stabilization policy. Such a discretionary policy implies the exercise of an expansionary fiscal and/or monetary policy in a recessionary period, and the use of a contractionary fiscal and/or monetary policy in an inflationary environment.

Such, in short, are the main features of the Classical and Keynesian views regarding the performance of the economy in the aggregate. Now the twentieth century has ended. We are at a point in time eighty years after the publication of *The General Theory* and then some fifty years after the conclusion of the Keynesian Revolution in the United States. In a sense, we might say that the Keynesian century has just concluded. And it seems appropriate, at this juncture, to look back at the performance of the American economy over the twentieth century, and, in particular, its performance during what may be called "Classical" and "Keynesian" times. This exercise may provide some historical perspective concerning the effect of the Keynesian Revolution on the performance of the American economy. It may even contribute in some small way to the present debate in macroeconomics. For while we currently live in a largely Keynesian economy insofar as diagnosis and public policy is concerned, enough remnants of the older school of thought are present in the current intellectual, even scientific, air to suggest that the Classical view is not entirely dead.⁵ This retrospective look at the performance of the American economy over the just concluded Keynesian century is the purpose of this paper.

The paper has three parts. The first section presents the data and a description of the performance of the economy over the century on the principal dimensions codified in the Employment Act of 1946.⁶ Here, our concern is to briefly look at the behavior of the economy with respect to production, unemployment, and inflation, using a data set ordered by presidential administration. The second section focuses on the matter of the performance of the economy on the same three dimensions under temporally defined Classical and Keynesian presidential administrations, that is, in Classical and Keynesian

times. Here, we will look at the performance of the economy in the context of three simple intuitive comparisons. And, finally, in the third section, we close the paper with a concluding comment on how the economy appears to have fared under the two alternative forms of governance.

I. The Economy over the Keynesian Century

The data set suggestive of the performance of the economy over the twentieth century is presented in Table 1. Given here are production, unemployment, and inflation data for each of the twenty-five presidential administrations of the century. GNP is the average annual percent change in real Gross National Product for the given administration; UNR is the average annual rate of unemployment for each presidency; and INR is the average annual percent change in the Consumer Price Index for each term.⁷ Table 1 also reports the mean and standard deviation for each of the three time series. And Figure 1 shows each series visually, with the growth rate in production in the upper panel, the unemployment rate in the middle panel, and the inflation rate in the lower panel.⁸

What approximate insights into the performance of the economy over the century may be exhumed from these data? The information in Table 1 suggests that real GNP grew at an average annual rate of some 3.30 percent, that the average rate of unemployment was in the vicinity of 6.59 percent, and that the average rate of inflation was around 3.16 percent per year.⁹ Around these averages, the data show some variation from administration to administration. The standard deviations for output, unemployment, and inflation appearing in Table 1 are 3.39, 4.18, and 4.38 percent, respectively. These numbers afford an initial

sense about the average performance of the economy over the century with respect to the three series together with an impression of the typical variation in that performance.

The graphic representations in Figure 1 give a visual sketch of each time series. Taken together, the graphs portray three phases in our economic experience over the century. The first phase encompasses the relative stability before World War I marked by growth in production and comparatively low rates of unemployment and inflation. This initial phase is apparent in administrations 1 through 4, the McKinley-Theodore Roosevelt term through Wilson's first term. The second phase includes the instability from World War I through the Great Depression and World War II characterized by pronounced fluctuations in production, unemployment, and average price levels. This second phase is observed in administrations 5 through 12, Wilson's second term through the Franklin Roosevelt-Truman term. And the third phase exhibits the relative stability marked by uniform growth in output together with comparatively modest average rates of unemployment and inflation during the last half of the century, notwithstanding the episode of inflationary-unemployment in the 1970s and early 1980s. This third phase is observed in administrations 13 through 25, the Truman term through Clinton's second term.

The Keynesian faithful of varying denominations will perhaps see, in the more moderate business cycles of the last half-century, the fruits of a properly operating national stabilization program set in motion by measures like the Employment Act of 1946. Devout Classics of various orders, on the contrary, may see the steady performance of the economy in recent years as a return to the pre-World War I stability, and largely a consequence, not of governmental management, but of the normal operation of the market,

the aggregate result of individuals commonly pursuing their private interests in a less fettered marketplace.

Then, too, the ranges for the three measures, gleaned from the data in Table 1, afford some insights consonant with these graphic impressions. The highest average rate of growth in GNP in the century was the 12.30 percent growth rate in the third term of Franklin Delano Roosevelt during World War II; the lowest growth rate in output was the -6.77 percent rate of decline in the Hoover presidency, the initial administration of the Great Depression. The lowest average unemployment rate of the century was the 3.12 percent rate seen in the presidency of Calvin Coolidge; the highest was the 20.90 percent unemployment rate in the midst of the Depression during the first Franklin Roosevelt administration. And the average inflation rate over the century varied from the -5.51 percent deflation during the Hoover presidency to the 16.39 percent inflation rate during World War I in the second term of Woodrow Wilson. However, the administration demonstrating the greatest price stability was that of Theodore Roosevelt with an average rate of inflation of zero percent. The extremes of these measures distributed largely over different administrations, they all appear, not surprisingly, in the first half of the century, indeed, in the phase of instability between the two World Wars.

Finally, as an aside from a somewhat different angle, these data perchance add meaning to other more well-known observations concerning the performance of the economy under particular presidencies. Perhaps the numbers for the Coolidge administration in Table 1 explain, at least in part, why President Ronald Reagan had a portrait of Coolidge prominently displayed in the Cabinet Room in the White House.¹⁰ Then the numbers for administration 8 doubtless had something to do with the lyrics in "We'd Like To Thank You

Herbert Hoover" in the Broadway musical, *Annie*.¹¹ And probably the numbers for the Bush administration played a role in the evolution of the 1992 Clinton campaign slogan, "It's the economy, stupid!"¹²

II. The Economy in Classical and Keynesian Times

Having some sense of the behavior of the economy over the full century, let us now turn to consider its performance under Classical and Keynesian administrations, in Classical and Keynesian times. The analysis here centers on three sets of comparisons. In each comparison, it is hypothesized that the observed mean rate of growth in production (GNP) will be *higher*, the mean rate of unemployment (UNR) *lower*, and the mean rate of inflation (INR) *lower*, respectively, in the Keynesian administrations than in the Classical administrations. Furthermore, it is hypothesized that all three measures, respectively, will have *lower* observed standard deviations in the Keynesian administrations than in the counterpart Classical presidencies. The expectations specified in these hypotheses follow rather literally from the policy targets codified in the Employment Act of 1946.

The first comparison uses the date of publication of *The General Theory*, 1936, as the basis for classifying the Classical and Keynesian administrations. *The General Theory*, more than anything else, provided the intellectual foundation for Keynesian macroeconomic theory and policy, the use of discrete public sector aggregate demand management to regulate the economy. The first comparison, then, provides a reading on the performance of the economy before and after the publication of *The General Theory*, in presidential administrations prior to the conception of the Keynesian theory and in administrations following the gestation of the Keynesian perspective. With 1936 as the line of demarcation for this comparison,

administrations 1 through 9, McKinley-Theodore Roosevelt through Franklin Roosevelt's first term, are classified as Classical presidencies with administrations 10 through 25, Franklin Roosevelt's second term through Clinton's second term, denoted as Keynesian presidencies. The results for this initial comparison appear in the upper panel of Table 2.

What do the data for this comparison suggest? The observed means indicate that the post-publication Keynesian administrations achieved a higher average rate of growth in production, a lower average rate of unemployment, and a higher average rate of inflation in comparison to the pre-publication Classical administrations. Then the observed standard deviations exhibit smaller magnitudes on all three performance measures for the Keynesian administrations relative to the Classical administrations.

The second comparison uses the date of passage of the Employment Act, 1946, as the basis for classifying the administrations.¹³ This legislation is the Keynesian law of the land, in the sense that it created the legal basis for much of the discretionary national stabilization policy in the United States as well as much of the institutional machinery for implementing such countercyclical policy. The law, therefore, provides a benchmark between the two types of administrations. Since no formal discretionary national stabilization policy program existed before the Employment Act, the administrations prior to this legislation are regarded as Classical while those following enactment of the Law are considered Keynesian. This second comparison, then, affords a reading on the performance of the economy before and after the institutionalization of Keynesian stabilization policy, in administrations prior to the existence of a formal national stabilization policy and in administrations following the institution of such policy. Thus, in the second comparison administrations 1 through 11, McKinley-Theodore Roosevelt through Franklin Roosevelt's third term, are classified as

Classical presidencies, while administrations 12 through 25, Roosevelt-Truman through Clinton's second term, are identified as Keynesian presidencies. The results for this second comparison appear in the middle panel of Table 2.

The observed means suggest that the Keynesian administrations experienced a slower average rate of growth in production, a lower average unemployment rate, and a higher average rate of inflation in comparison to the Classical presidencies. Then, the observed standard deviations again reflect smaller magnitudes on all three performance measures for the Keynesian administrations in comparison to the Classical presidencies.

The final comparison considers the performance of the economy in the initial seven and the final seven administrations in the century, with the former set considered in the Classical realm and the latter set in the Keynesian sphere. This comparison excludes the middle eleven presidencies, that is, administrations 8 through 18, Hoover through Nixon. This analysis may yield a comparison between a more "pure" Classical period and a more "established" Keynesian period. This Classical period experienced less contamination in the sense that it omits the administrations that enacted quasi-Keynesian discretionary policies associated with the Great Depression and World War II.¹⁴ And this Keynesian period is more established in the sense that, by its inception, the Keynesian Revolution had run its course, and the theory of aggregate demand with its ancillary technical and institutional apparatus was accepted orthodoxy for managing the economy.¹⁵ This final comparison, then, provides a reading on the performance of the economy during a period before consideration of a national stabilization policy and during a period when Keynesian national stabilization theory and policy was well established. The results for this final comparison appear in the lower panel of Table 2.

The observed means show that the Keynesian presidencies turned in a slower rate of growth in output along with higher rates of unemployment and inflation in relation to the Classical administrations. And, then, the lower standard deviations once again fall uniformly in the Keynesian administrations relative to the Classical presidencies.

III. A Concluding Comment

What can we conclude from this brief review of the performance of the macroeconomy under Classical and Keynesian presidential administrations during the twentieth century? What can we say about the performance of the economy in Classical and Keynesian times on the dimensions of economic activity specified in the Keynesesque Employment Act? What is the legacy of the Keynesian Revolution?

The adumbration in Table 3 presents a scorecard of a sort for these questions. The table provides the results for the three comparisons across the six examined dimensions of economic activity. An entry, E, signifies an expected result, a finding consistent with the pertinent target of the Employment Act, and an observation supporting Keynesian over Classical governance. And an entry, U, denotes an unexpected result, a finding inconsistent with the applicable target of the Employment Act, and an observation supporting Classical over Keynesian governance.

The aggregate results are largely on the expected side. Of the eighteen separate comparisons, twelve were found to support the Keynesian position while six were tilted in favor of the Classical position. The targets of the Employment Act were apparently achieved more effectively in Keynesian times than in Classical times. This ensemble of descriptive findings suggests a differential in macroeconomic governance that, at the margin, favors the Keynesian approach over the Classical tack. Keynesian governance, in

other words, had its intended impact on most of the major indicators of macroeconomic activity. And this observation provides a degree of comfort for the economic policy makers of the last century, especially given the huge human capital investment in the Keynesian Revolution.

Beyond this broad conclusion, two more specific findings surface from particular comparisons. First, the standard deviation comparisons support the expected result, without exception, in all nine of these comparisons. The standard deviations for production, unemployment, and inflation were all observed to be lower in Keynesian times than in Classical times, regardless of the time definition. This result suggests that the Keynesian Revolution, indeed, moderated the business cycle, and thus dampened some of the extremes of macroeconomic life. Second, the mean comparisons for inflation uniformly generated unexpected results. The mean rate of inflation was higher in Keynesian times than in Classical times in all three of these comparisons. The Classical world exhibited lower average levels of inflation than the Keynesian world. This result augurs that the Keynesian Revolution produced, as a byproduct, an economy with higher, and perhaps more-or-less permanent, rates of inflation.

Finally, one additional observation deserves comment relating to the third set of comparisons, that focusing on the performance of the economy under the first-seven and last-seven administrations. In particular, these results exhibit a certain symmetry. All three mean comparisons yielded unexpected results, and all three standard deviation comparisons produced expected results. While Classical administrations were more effective in achieving the mean targets of the Employment Act, the Keynesian administrations were more successful in realizing the standard deviation objectives of the Employment Act. Thus,

while higher average rates of growth in production and lower average unemployment and inflation rates were realized in Classical times, these three indicators of economic activity exhibited less variability in Keynesian times. And these findings illustrate yet another macroeconomic policy tradeoff of a sort. On the one hand, policies that increase the rate of growth in production above its century-long average and decrease the rates of unemployment and inflation below their century-long averages, produce indices of economic activity that show greater variability. On the other hand, policies that reduce the variability in the rate of growth in production and the rates of unemployment and inflation will yield values that, like Galton's offspring, regress toward their respective means.

Notes

**The New York Times*, February 21, 1946, p. 11. Remark included in the statement made by President Truman in Washington, D. C. on February 20, 1946 at the occasion commemorating passage and signing of Public Law 304, the Employment Act of 1946.

¹John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York: Harcourt, Brace & World, 1964).

²My use of the term, Classical, here follows the usage of Keynes, which differs little from its rather widespread current usage in history of economic thought circles. Keynes's context is illustrated in the following passage in Chapter 1 of *The General Theory*, p. 3:

I have called this book the *General Theory of Employment, Interest and Money*, placing the emphasis on the prefix *general*. The object of such a title is to contrast the character of my arguments and conclusions with those of the *classical* theory of the subject, upon which I was brought up and which dominates the economic thought, both practical and theoretical, of the governing and academic classes of this generation, as it has for a hundred years past. [All italics in the original.]

A classic expression of the Classical position is David Ricardo's statement of Say's Law of Markets in his *On the Principles of Political Economy and Taxation* (New York: E. P. Dutton & Co., 1911), p. 194. More recent expressions of various facets of the Classical position can be found in M. Bronfenbrenner, "Employment, Theories of," *The New Palgrave: A Dictionary of Economics* (New York: The Stockton Press, 1987), v. 2, pp. 130-133; M. W. Reder, "Chicago School," *The New Palgrave: A Dictionary of Economics*, v. 1, pp. 413-418; Alan Waters, "Friedman, Milton," *The New Palgrave: A Dictionary of Economics*, v. 2, pp. 422-427; and James Buchanan and Richard Wagner, *Democracy in Deficit: The Political Legacy of Lord Keynes* (New York: Academic Press, 1977).

³Milton Friedman, *A Program for Monetary Stability* (New York: Fordham University Press, 1959), pp. 77-101; and Milton Friedman, *Capitalism and Freedom* (Phoenix Edition; Chicago: The University of Chicago Press, 1962), pp. 53-55.

⁴The Keynesian position is expressed in greater detail in Keynes, *The General Theory*, pp. 27-34, 372-384; Murray Milgate, "Keynes's General Theory," *The New Palgrave: A Dictionary of Economics*, v. 3, pp. 42-46; Don Patinkin, "Keynes, John Maynard," *The New Palgrave: A Dictionary of Economics*, v. 3, pp. 19-41; and Axel Leijonhufvud, *On Keynesian Economics and the Economics of Keynes* (New York: Oxford University Press, 1968), pp. 3-35.

⁵ Among the recently resurrected remnants of Classical thought are supply-side economics, the rational expectations strain of thought, the new classical perspectives, and the microeconomic foundations of macroeconomics. All this resurrection of earlier views suggests that we may be moving toward some sort of Hegelian synthesis of Keynesian and Classical thought concerning the nature of the macroeconomy and its governance.

⁶ *United States Statutes at Large*, Vol. 60, 79th Congress, 2nd Session, pp. 23-26. The Employment Act of 1946 is a landmark piece of economic legislation in the United States. In this law, the Federal Government formally assumed responsibility for the governance of the aggregate economy. The "Declaration of Policy" appearing in Section 2 of the Law states:

The Congress hereby declares that it is the continuing policy and responsibility of the Federal Government . . . to promote maximum employment, production, and purchasing power.

And the Law created institutional machinery for monitoring the performance of the economy and for recommending national stabilization policy appropriate to the condition of the economy. The President's Council of Economic Advisors and the Joint Economic Committee of Congress are yet functioning administrative instruments created by this Act. The Employment Act, perhaps more than any other piece of legislation, establishes Keynesian thinking as the law of the land.

A growing literature exists on the Employment Act of 1946 and the Council of Economic Advisors (CEA). The development of the legislation is recounted in Stephen Bailey, *Congress Makes a Law: The Story Behind the Employment Act of 1946* (New York: Columbia University Press, 1950). And the following three *Journal of Economic Perspectives*, 10(Summer 1996) Symposia articles are useful, not only for their observations and analyses, but for their references: J. Bradford De Long, "Keynesianism, Pennsylvania Avenue Style: Some Economic Consequences of the Employment Act of 1946," pp. 41-53; Herbert Stein, "A Successful Accident: Recollections and Speculations about the CEA," pp. 3-21; and Charles L. Schultze, "The CEA: An Inside Voice for Mainstream Economics," pp. 23-39.

⁷ The GNP data are geometric means calculated from annual percentage changes in real GNP for each presidential administration. The annual GNP data were retrieved from the following two sources: The data for the period, 1899-1959, came from the U. S. Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970* (Washington, D. C.: U. S. Government Printing Office, 1975) (hereinafter referred to as *Historical Statistics*), Part 1, Series F 3, p. 224; and the data for the period, 1960-2000, came from the Council of Economic Advisors, *Economic Report of the President* (Washington, D. C.: U. S. Government Printing Office, 2002) (hereinafter referred to as *Economic Report*, 2002), Table B-2, p. 323. The UNR data are arithmetic means calculated from annual average rates of civilian

unemployment for each administration. The annual UNR data were taken from the following three sources: The data for the period, 1899-1949, came from the *Historical Statistics*, Part 1, Series D 86, p. 135; the data for the period, 1950-1959, came from the Council of Economic Advisors, *Economic Report of the President* (Washington, D. C.: U. S. Government Printing Office, 2001), Table B-42, p. 324; and the data for the period, 1960-2000, came from the *Economic Report*, 2002, Table B-42, p. 370. And the INR data are geometric means calculated from annual percent changes in the CPI for each presidency. The annual INR data were taken from the following two sources: The data for the period, 1899-1959, came from the *Historical Statistics*, Part 1, Series E 135, pp. 210-211; and the data for the period, 1960-2000, came from the *Economic Report*, 2002, Table B-60, p. 389.

⁸ A few words of caution are in order concerning the data and analyses used herein. First, the time series used in this analysis are not structurally equivalent in any strict sense over the entire century, since varying definitions and estimation procedures were used over the period. Thus, each array should be viewed as an approximation, at times even on the rough side. Second, the data are four-year averages and, as such, are bound to conceal details that would appear in higher frequency data. And, third, since my purpose here is simply to summarize the observed behavior of each of the time series over the century and then in Classical and Keynesian time periods, the analyses carried out are entirely descriptive. Thus, while the present search is not a hunt for inferential truths, *per se*, we may in this effort learn where some of these truths might be hiding, and then try to track them down in subsequent efforts.

⁹ The median values for the GNP, UNR, and INR series appearing in Table 1 are 3.34, 5.58, and 2.47, respectively.

¹⁰ Lou Cannon, *Reagan* (New York: G. P. Putnam's Sons, 1982), p. 323. The picture of Coolidge replaced a portrait of Harry S. Truman; where Truman's image landed is not reported.

¹¹ *Annie: A New Broadway Musical* (New York: Edwin H. Morris & Company, 1977), Music Number 5, pp. 35-40; and *Annie: A New Musical*, original cast cassette tape recording (New York: Columbia Records, 1977), Side 1, Selection 5. Although probably unfair in heaping all the blame on Hoover, the sting of the song is exhibited in the final verse:

We'd like to thank you, Herbert Hoover,
For really showing us the way,
You dirty rat, you bureaucrat,
You made us what we are today!

¹² George Stephanopoulos, *All Too Human: A Political Education* (Boston: Little, Brown and Company, 1999), p. 88. The popular slogan was apparently taken from a sign fashioned by James Carville that read:

Change vs. More of the Same
The economy, stupid
Don't forget health care

The sign was prominently displayed in the War Room at the Clinton campaign headquarters in Little Rock, Arkansas.

¹³ Administration 12, the Roosevelt-Truman term in which the Employment Act of 1946 was passed, was classified as a Keynesian administration in this second comparison because the legislation itself is essentially Keynesian, rather than Classical, in spirit and substance.

¹⁴ Possible quasi-Keynesian policies include certain New Deal programs like the Works Progress Administration (WPA) which employed some 3.3 million workers during the Depression as well as the massive World War II deficit spending. John M. Peterson and Ralph Gray, *Economic Development of the United States* (Homewood, Illinois: Richard D. Irwin, 1969), pp. 401-407.

¹⁵ Surely the Keynesian Revolution in the United States was complete by 1973, the year of the inauguration of the Nixon-Ford administration. Keynesian macroeconomic analysis had been in all the elementary college textbooks in economics for over twenty years by then; Keynes himself had posthumously made the cover of *Time* in 1965; and in the *Time* article, Milton Friedman was quoted saying, "We are all Keynesians now." Friedman responded in a letter to the editor in a subsequent issue of *Time*, "The quotation is correct, but taken out of context. As best I can recall it, the context was: "In one sense, we are all Keynesians now; in another, nobody is any longer a Keynesian." But then in January 1971 President Richard Nixon proclaimed, "Now I am a Keynesian." See *Time* (December 31, 1965), cover, pp. 64-67B; *Time* (February 4, 1966), p. 13; and Herbert Stein, *Presidential Economics* (New York: Simon and Schuster, 1984), pp. 113, 135.

Table 1
Performance of the Economy
by Presidential Administration, 1901-2000

Presidential Administration	GNP	UNR	INR
1. McKinley-Roosevelt(1901-04)	3.92	4.25	1.94
2. Roosevelt(1905-08)	2.81	4.20	0.00
3. Taft(1909-12)	6.77	5.58	1.80
4. Wilson(1913-16)	0.78	6.45	3.05
5. Wilson(1917-20)	1.04	3.15	16.39
6. Harding-Coolidge(1921-24)	4.27	6.45	-3.89
7. Coolidge(1925-28)	3.63	3.12	0.05
8. Hoover(1929-32)	-6.77	12.85	-5.51
9. Roosevelt(1933-36)	7.56	20.90	0.36
10. Roosevelt(1937-40)	4.16	16.28	0.30
11. Roosevelt(1941-44)	12.30	4.42	5.84
12. Roosevelt-Truman(1945-48)	-2.71	3.38	8.15
13. Truman(1949-52)	5.11	4.38	2.47
14. Eisenhower(1953-56)	3.08	4.22	0.59
15. Eisenhower(1957-60)	2.27	5.52	2.20
16. Kennedy-Johnson(1961-64)	4.65	5.78	1.16
17. Johnson(1965-68)	5.02	3.92	2.93
18. Nixon(1969-72)	2.99	4.98	4.69
19. Nixon-Ford(1973-76)	2.61	6.68	8.02
20. Carter(1977-80)	3.34	6.52	9.70
21. Reagan(1981-84)	2.86	8.60	5.97
22. Reagan(1985-88)	3.57	6.48	3.30
23. Bush(1989-92)	1.96	6.30	4.36
24. Clinton(1993-96)	3.19	6.00	2.84
25. Clinton(1997-00)	4.16	4.40	2.35

All Administrations (n=25):			
Arithmetic Mean	3.30	6.59	3.16
Sample Standard Deviation	3.39	4.18	4.38

Note: The GNP data for each administration are geometric means calculated from annual percentage changes in real GNP for the presidency; the UNR data for each administration are arithmetic means calculated from annual average rates of civilian unemployment for the presidency; and the INR data for each administration are geometric means calculated from annual percent changes in the Consumer Price Index for the presidency.

Figure 1

Production, Unemployment, and Inflation by Administration

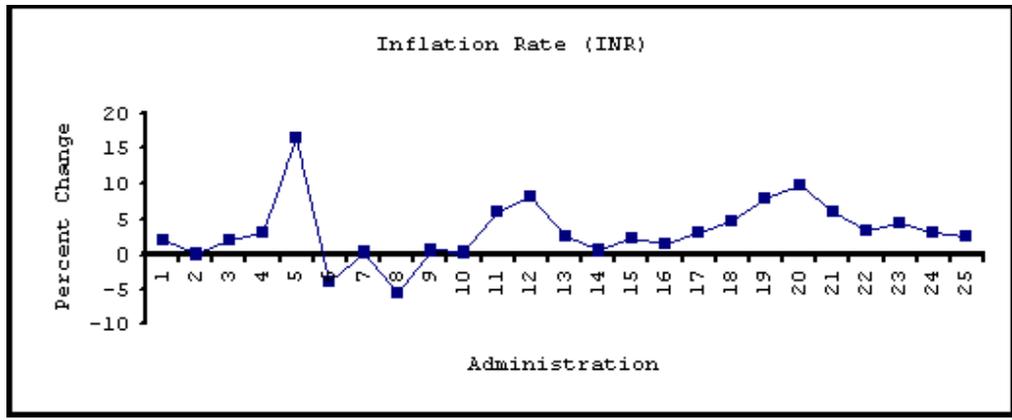
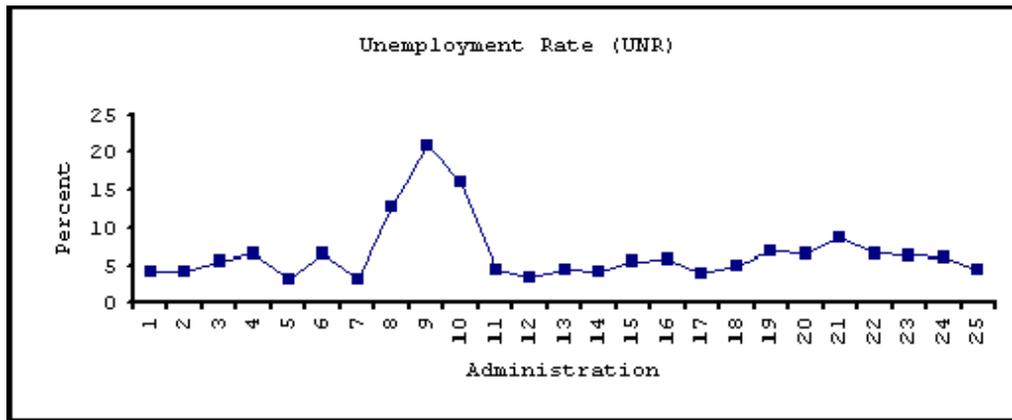


Table 2
Comparison Results

Time Period / Statistic	GNP	UNR	INR
Comparison 1: <i>The General Theory</i> Comparison			
Classical Administrations 1-9 (n=9)			
Arithmetic Mean	2.67	7.44	1.58
Sample Standard Deviation	4.20	5.85	6.20
Keynesian Administrations 10-25 (n=16)			
Arithmetic Mean	3.66	6.12	4.05
Sample Standard Deviation	2.92	3.02	2.81

Comparison 2: The Employment Act Comparison			
Classical Administrations 1-11 (n=11)			
Arithmetic Mean	3.68	7.97	1.85
Sample Standard Deviation	4.74	5.98	5.72
Keynesian Administrations 12-25 (n=14)			
Arithmetic Mean	3.01	5.51	4.19
Sample Standard Deviation	1.91	1.40	2.78

Comparison 3: The First and Last Seven Administrations Comparison			
Classical Administrations 1-7 (n=7)			
Arithmetic Mean	3.32	4.74	2.76
Sample Standard Deviation	2.05	1.43	6.41
Keynesian Administrations 19-25 (n=7)			
Arithmetic Mean	3.10	6.42	5.22
Sample Standard Deviation	0.71	1.23	2.79

Table 3

Comparison Summary

Dimensions of Economic Activity	Comparison and Results		
	1	2	3
Production (GNP)			
Mean	E	U	U
Standard Deviation	E	E	E
Unemployment (UNR)			
Mean	E	E	U
Standard Deviation	E	E	E
Inflation (INR)			
Mean	U	U	U
Standard Deviation	E	E	E

Note: E signifies an expected result; a finding consistent with the target of the Employment Act; the observed result supports Keynesian position. And U denotes an unexpected result; a finding inconsistent with the target of the Employment Act; the observed result supports Classical position.