# The Reagan Legacy:

# Unwarranted Optimism or Unfolding Opportunities?

by

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## 1.    Introduction

The title of this book, *The Reagan Legacy: Chaos or Euphoria?* and the theme of the conference on which it is based, reflect a fundamental uncertainty about what the Reagan legacy has been and will be.  Economic growth since 1983 has been good, but some of it may have been recovery from the preceding recession.  Inflation has been low, but real interest rates have been high.  Income tax rates are lower, but the budget deficit continues to be large.  Moreover, we have been running large current account deficits, financed by borrowing from abroad and by foreign purchases of U.S. capital, a situation Senator Bensten characterized in his now famous 1988 Vice Presidential debate as "selling America on the cheap."

A list such as the above certainly seems to have a chaotic character to it.  Yet many believe that the U.S. economy is basically on the right track, poised for sustained economic growth well into the 1990s.  Albeit concerned about budget deficits, they see them as coming down.  They believe that lower tax rates, in particular, and the rollback in government intervention, more generally, will unleash individual initiative, entrepreneurial effort, and private sector productivity.  They are confident that renewed strength in foreign policy will result in economic benefits emerging from both superpower and Third World relations.  They believe they see at work President Reagan's vision of the "unlimited potential of the human mind" rather than President Carter's "era of limited resources."

Webster's dictionary defines "euphoria" as "a feeling of vigor and well-being," but one that may be "exaggerated and without obvious cause."  Certainly, the Reagan era was characterized by a rebirth of optimism about the future of America.  The fundamental question, however, is whether that optimism has been warranted or not.  Is the Reagan legacy one of false euphoria, with the chaos of high interest rates, budget deficits and current account deficits ultimately undermining the future?  Or is the optimism in fact warranted, and will the 1990s reveal the Reagan legacy to be an unfolding set of opportunities?

Those who believe that the Reagan legacy is one of unwarranted optimism point to the large budget and current account deficits and high real interest rates as evidence of a troubled

economic future of America. President Reagan, on the other hand, argued that high real interest rates are a reflection of the rebirth of the U.S. economy, that capital inflows from Japan and elsewhere reveal foreign confidence in that economy, and that the budget deficit poses no fundamental problem to a rapidly growing economy as long as government spending is controlled.

In the discussion that follows, I present a brief analysis of the debate in the context of a simple two-period Fisherian model that embeds the key issues at stake. The purpose of the model is not to resolve the debate, but to analyze it in a systematic way. I have found this model, derived from Irving Fisher's *Theory of Interest* (1930), which is also the basis for modern finance theory, to be especially useful as a means of characterizing many issues in macroeconomics relating to intertemporal resource allocation. Jack Hirshleifer's *Investment, Interest and Capital* (1970) contains a good exposition of this theory. The 1981 article by Sachs in the *Brookings Papers on Economic Activity* was perhaps the first to introduce international considerations into Fisherian theory.

## 2.    Model Set-Up

Consider a simple two-period model of intertemporal resource allocation, where $c_1$ denotes "current period" consumption and $c_2$ denotes "future" consumption. The model economy is open with respect to international capital flows, but may, like the U.S., be large enough to affect world interest rates. All discussion relates to Figure 1, in which the economy is modeled in terms of a "representative individual," so that all analysis is on a per capita basis.

• The point of departure is the "endowment" denoted by point E. At E, current period income is $y_1^e$ and future income is $y_2^e$. This intertemporal flow of income derives from the current period <u>total</u> capital stock (including physical, human and resource-base capital) assuming no capital augmenting (net) investment, but sufficient maintenance investment to offset depreciation.

• The intertemporal transformation opportunities are given by the convex curve ETA. Moving from point E to a point like T represents net investment that increases the capital stock. The convex shape of ETA reflects diminishing returns to investment.

• The world rate of interest relevant for borrowing and lending in international capital markets is given by $r^W$, and hence the slope of the capital market budget constraint is $-(1 + r^W)$. The wealth maximizing choice for investment involves investing up to the point where the slope of the intertemporal transformation locus, ETA, is equal to $-(1 + r^W)$. That occurs at the tangent point T. The amount of investment is shown as $i_1^*$, the length of the arrow starting at E. The present value of the income flow associated with T is given by $w_1^*$ on the horizontal axis. That is also the maximized market value of the economy's total capital stock.

• Depending on preferences, the representative individual can choose any point along the intertemporal budget constraint given by the straight line tangent at T. A point between T and $w_1^*$ represents borrowing on world capital markets. A point to the upper left of T represents lending. The preferences shown in Figure 1 indicate a choice point C lying right on top of T, which involves $c_1^*$ current period consumption and $c_2^*$ future consumption. At this point, the representative individual is neither borrowing nor lending abroad and is consuming exactly the income left over after investment, $c_1^* = y_1^* - i_1^*$. In this special case, no net imports of capital are needed, so that the current account is balanced.

## 3. Expectations of a Better Future

Consider now the question: What would be the predicted effects on the economy depicted in Figure 1, of improved expectations of future opportunities? The question at this point is not whether those expectations are correct, but rather what would be the observable consequences of such improved expectations.

• I model the change in expectations as an increase in the future productivity both of total capital currently in place and of additions to the capital stock (i.e., investment). For total capital in place, the enhanced expectations would result in a shift in the endowment point from E to E'.

This corresponds to a higher expected future income flow, $y_2^{e'} > y_2^e$. For new investment, the enhanced expectations involve a higher expected return, manifested as a steeper slope at each point on the new intertemporal opportunity locus $E'T'A'$.

- At the original world rate of interest $r^w$, the wealth maximizing decision would involve investing up to the point of tangency with the new intertemporal opportunity locus, which would occur at $T'$. If the economy were fully open and small enough not to affect world interest rates, this would be the optimum investment decision, and the intertemporal budget constraint would be the dotted line tangent to $T'$. If both current and future consumption are normal goods, the tangency point would be at a point like $C'$. To achieve this consumption point requires net imports in the current period, i.e., a current account deficit, since current period consumption plus investment would exceed current period income. The net imports would be paid for by foreign borrowing.

- If the economy in question is large, the borrowing from abroad necessary to move from $T'$ to $C'$ may increase world, and hence domestic, interest rates. Alternatively, if the economy were only partially open to international capital markets, then domestic interest rates would be bid up above the world rate $r^w$, due to increased domestic borrowing. Either or both of the scenarios may apply to the U.S., and so the equilibrium at $C''$ features a domestic interest rate $r''$ greater than $r^w$.

- The wealth maximizing intertemporal transformation point is now where $E'T'A'$ is tangent to the line with slope $-(1 + r'')$. This occurs at $T''$, which implies investment in the amount $i_1^{*''}$ indicated by the arrow starting at $E'$. Note that, in the case illustrated, investment $i_1^{*''}$ is less than $i_1^*$. This is because the interest rate increase from $r^w$ to $r''$ more than offsets the increased return to new investment. The size of the positive "wealth effect" on current consumption drives this result.

- Given $r''$ the new consumption optimum will be a point such as $C^{*''}$. Despite the higher $r''$, the wealth effect dominates the substitution effect, yielding higher current consumption $c_1^{*''}$.

The borrowing from abroad necessary to support the movement from $T''$ to $C^{*''}$ is explicitly labeled and is equal to the current account deficit. Given the increase in the rate of interest from $r^W$ to $r''$, the market value of the total capital stock is now given by $w_1^{*''}$, which is shown as greater than $w_1^*$.

## 4. Understanding the Reagan Legacy

From the preceding analysis, we can draw a number of observable implications that derive from expectations of better future opportunities, Table 1. Also summarized are predictions from theories that presume that large government budget deficits "crowd out" private sector investment and drive up interest rates. Again, these predictions require a large or partially closed economy as well.

The key predictions are those that distinguish between the two. Under "crowding out" theory, as real rates are driven up by the government budget deficit, without expectations of increased future income, (1) the current market value of the private sector capital stock should be *lower*, (2) both consumers and corporations will *reduce* their indebtedness, and (3) future economic growth will be *smaller* (due to reduced investment). Thus, we can see whether actual data conform better to the predictions of the "optimism" theory or the "crowding out" theory.

Table 2 presents the evidence comparing 1976-79 with 1983-88. Interestingly, the data in Table 2 conform directly to the predictions from Figure 1. In particular, the value of the stock market (a subset of $w_1^{*''}$) has increased, as have consumer and corporate debt. All sectors appear to have been borrowing in expectation of a better future. In this context, government sector borrowing appears to be part of an overall increase in borrowing. The higher real interest rates do not appear to have crowded out either consumer or corporate debt, nor have higher rates adversely affected the stock market (or the housing market for that matter). The one prediction that we have yet to observe is a more prosperous economic future. We have experienced a somewhat higher rate of economic growth over 1983-88 than over 1976-79. Yet the difference is hardly large, and in any case, the jury is still out.

Thus, we return to the title of this paper. Are the expectations of a better future that appear to explain the data in Table 2 unwarranted and overly optimistic (i.e., euphoric)? Or is the "longest sustained peacetime recovery" the front-end of an unfolding set of improved future opportunities? Will the future economic benefits of world peace and the democratization that are currently taking place in Eastern Europe and elsewhere be the realization of these expectations? Will world economic integration and an accelerating pace of technological advance ultimately lead to mutually beneficial economic gains for all countries including the U.S.?

The analysis here does not answer these questions, of course. But it does reveal that high real interest rates, large current account deficits, and even large budget deficits are not necessarily fundamental problems hanging over our economy, a legacy of chaos from the Reagan era. Rather, when viewed as a whole, they are the natural consequences of expectations of an improved future.

TABLE 1

| Observable | Prediction from Figure 1 | Prediction from "Crowding Out" |
|---|---|---|
| 1. real interest rates | higher | higher |
| 2. consumption/GNP | higher | higher |
| 3. investment/GNP | lower | lower |
| 4. current account deficit | larger | larger |
| 5. stock market value | higher | lower |
| 6. consumer debt/GNP | larger | smaller |
| 7. corporate debt/GNP | larger | smaller |
| 8. (future) economic growth | greater | smaller |

TABLE 2

| | | 1976-79 | 1983-88 |
|---|---|---|---|
| 1. | Ex ante Real Rate of Interest[a] | .7% | 3.2% |
| 2. | Consumption Expenditures[b] | .637 | .664 |
| 3. | Gross Private Investment Excluding Inventories[b] | .167 | .154 |
| 4. | Current Account Deficit[b] | -.001 | -.026 |
| 5. | Real value of the S&P 500 as of the end of the period (12/31/25 = 1) | 6.65 | 26.40 |
| 6. | Consumer Indebtedness[b] | .531 | .617* |
| 7. | Business Indebtedness[b] | .675 | .785* |
| 8. | Growth rate of real GDP[a] | 3.9% | 4.3% |

*1983-7

[a]Average annual values.

[b]Average annual value as a fraction of GDP.

SOURCES: All data are annual. Row 1: Barro, R. J., *Macroeconomics*, 3rd ed., Table 7-3, col. 5. Rows 2-4, 8: *U.S. Dept. of Commerce, Survey of Current Business*, July 1987 and 1989, and *National Income and Product Accounts of the U.S.: Historical Tables, 1929-82*. Row 5: Ibbotson Associates, *Stocks, Bonds, Bills and Inflation: 1989 Yearbook*. Real values computed using the implicit deflator for GDP. Rows 6-7: Board of Governors of the Federal Reserve System, *Balance Sheets for the U.S. Economy*, Release C.9, "Sector Balance Sheets with Tangible Assets at Current Cost." Indebtedness is taken from the row labeled "Total Liabilities."

Current Account Deficit = Borrowing from Abroad