economies need not be a dismal science; rather, it could be both entertaining and informative.

More recently, Professor Rima has turned her attention to the global economy. In the Spring of 1991 she was instrumental in organizing a conference in Rome on economic restructuring taking place throughout the world. The papers presented at the conference dealt with many contemporary policy issues— the regional trade arrangements that are developing, the new financial structures that need to be put in place in a world of unlimited capital mobility, and the problems encountered by socialist economies making the transition to capitalism. They examined the causes and consequences of particular changes in the world economy; and they set forth potential policy solutions for theills that have already arisen, or are likely to arise, in the course of these changes.

While the conference was both rewarding and stimulating, Dr. Rima felt that merely having a conference was insufficient. Consequently, she turned her attention to making the conference papers available to a wider audience. Many of the papers presented at the conference are currently being drawn together in a volume titled *The Political Economy of Economic Restructuring*. It will be the first volume of a series to be published by Edward Elgar under the theme “New Dimensions in Political Economy.” All volumes in this series will be under the general editorship of Dr. Rima. The series itself will attempt to bridge the gap between received economic theory and the real world and to create renewed interest in political economy. It is expected that most volumes in this series will be the result of future international conferences that address important issues in contemporary political economy.

Dr. Rima's receptivity to important real-world economic issues, to the importance of the global economy, and to the contributions made by non-Americans, is largely responsible for the fact that the Eastern Economic Association meetings have a distinctly international hue. The success of these meetings, and especially the world-wide reputation of this association and journal, have been due to Dr. Rima's broad interests, her hard work, her caring, and her talents as an economist.

**REFERENCES**


legal prohibition was evaded and implicit interest was paid on deposits. These covert interest payments may be less than the full amount paid under deregulation and the implicit payment may be evaluated by depositors at less than its full monetary equivalent—payments may be made in kind, etc. Let \( k \) represent the extent to which any implicit interest paid on deposits falls short of its full monetary equivalent under deregulation. Under evasion, the deposits would earn \( rs(1-f-c) \), where \( 0\leq f\leq 1 \). When \( k \) is one, the prohibition is without effect and the opportunity cost is \( rs+1 \). When \( k \) is zero, the prohibition is effective—no interest is paid on deposit so that opportunity costs of holding deposits is \( rs+c \).

Initially, consider a log-linear demand schedule:

\[
m = Ay^p (1-k+h+f+c) \tag{1}
\]

where \( m \) is real balances, \( A \) is a constant, \( y \) is real income and \( a \) and \( \beta \) are the real income and net interest elasticity, respectively. Note that

\[
\frac{\Delta m}{\Delta y} = \frac{\Delta m}{\Delta r} = \frac{m}{y} (1-k+h+f)/(r(1-k+h+f)+c). \tag{2}
\]

The slope of LM is,

\[
\frac{dr}{dy} \big|_{\Delta r} = -\frac{ao}{\Delta y (1-k+h+f) - \alpha r/y}. \tag{3}
\]

Under completely effective prohibition, \( k=0 \), and

\[
\frac{dr}{dy} = -\frac{ao}{\Delta y} - \alpha r/y. \tag{4}
\]

When \( k=1 \), and deregulation is complete,

\[
\frac{dr}{dy} = -\frac{ao}{\Delta y} - \alpha r/y. \tag{5}
\]

Given the other parameter values \( a, \beta, c \) and \( f \), it is clear that the greater the evasion of the prohibition, the higher is \( k \), and the steeper becomes the slope of the LM schedule.\(^7\)

Intuitively, the reason is that the payment of interest on deposits decreases the interest elasticity of the demand for money with respect to the open market interest rate, \( r \). Under prohibition, the elasticity is \( \frac{\Delta m}{\Delta r} = \frac{\alpha}{\Delta y} \), while elasticity under deregulation is \( \frac{\Delta m}{\Delta r} = \frac{\alpha}{\Delta y} \), so that the percentage change in the demand for deposits is lower under full deregulation and declines with a fall in the reserve ratio.\(^8\)

Now consider the semi-log demand function,

\[
m = Ay^p (1-k+h+f+c) \tag{6}
\]

Now,

\[
\frac{\Delta m}{\Delta y} = \frac{\Delta m}{\Delta r} = \frac{m}{y} (1-k+h+f) \tag{7}
\]

Then LM’s slope is

\[
\frac{dr}{dy} \big|_{\Delta r} = -\frac{ao}{\Delta y (1-k+h+f) \tag{8}}
\]

Under effective prohibition, \( k=0 \), and

\[
\frac{dr}{dy} = -\frac{ao}{\Delta y} \tag{9}
\]

when deregulation is complete, \( k=1 \) and

\[
\frac{dr}{dy} = -\frac{ao}{\Delta y}. \tag{10}
\]

As long as \( k=1 \), so that the prohibition of the payment of interest was at least partially effective, and banks hold interest bearing assets so that \( k<1 \), deregulation steepens the LM schedule at the full employment rate of interest.

Our analysis thus far provides a strong presumption that deregulation has steepened the LM schedule. Nevertheless, deregulation has spawned money substitutes which may have increased \( \beta \) and, therefore, the interest elasticity of the demand for M1 with respect to its net opportunity cost. An increase in \( \beta \) would flatten LM. This effect is not certain since no theoretical presumption exists that the introduction of money substitutes increases the elasticity of demand for M1 at every interest rate. Consider the following counter example: let the demand for money be made up of two groups, one of which has the more elastic demand schedule. Now introduce a rival asset. It is not implausible to argue that this will increase the elasticity of the demand schedule for each individual at the former rate of interest, but it will also shift each schedule to the left. It is plausible that the extent of the shift will not only differ from individual to individual but will be related to the elasticity of the initial schedule. A relatively elastic schedule makes an individual relatively sensitive to small changes in returns on alternative forms of wealth and one who is apt to shift a relatively large fraction of his assets into the newly available money substitute. The final market demand schedule is then more heavily weighted with individuals whose demand for money is relatively inelastic and may therefore be less elastic than is the initial schedule for some range of interest rates.\(^7\)

What is needed is empirical evidence on how \( \beta \) responds to deregulation. Such evidence does not exist—it would require estimates of the implicit interest paid on deposits and on the marginal costs of intermediation.\(^8\) Moreover, evidence from the period when deregulation is phased in would at best provide a hint of the effect on \( \beta \) in our idealized model of full deregulation. If we remind ourselves that no theoretical presumption exists that money substitutes increase \( \beta \), and that even if such an increase does occur, it must be of sufficient magnitude to offset the unambiguous effect of other variables in steepening LM, a strong presumption remains that deregulation steepens the LM schedule.

NOTES

1. We recognize that deregulation may have increased the variance of shocks to LM and that the policy which minimizes the variance of real output depends not only on the structural parameters, but also on the variance of the shocks. Indeed, Tobin (1969) has argued that deregulation has both steepened the slope of LM and increased its variance. Both factors, Tobin argues, need to be taken into account in the interest rate policy of the money supply to minimize the variance of real output.

2. Of course, the central bank controls the base in order to target the supply. If the currency-deposits ratio were constant, and we ignore excess reserves, holding the base constant would set the money supply since the money multiplier would be constant. If the prohibition on paying interest on deposits were effective, a rise in the open market rate would induce a greater substitution away from deposits
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currency, the money multiplier would rise and the authorities would be required to contract the base to set a given level of M1. When interest is flexibly paid on deposits, a rise in open market rates would lead to a substitution away from currency in favor of deposits and would require an expansion of the base to counter the decrease in the multiplier. This would make ML steeper since the level of income would have to rise more from any given increase in the open market rate in order for the demand for base money to become equal to the supply of base money. However, since we ignore the existence of currency, our assumptions preclude those substitution effects. The stripdown assumption of our model were made to highlight those factors which we believe to be of major empirical relevance.

3. Although the empirical evidence on the instability of the marginal cost of intermediation is inconclusive (Berne and Preppu, 1986, our findings remain unchanged under increasing marginal costs. This extension to increasing marginal costs is available upon request.

4. When the prohibition against interest payments on deposits is effective (k=0), the depositories pay up front for services such as the clearing of checks. The marginal cost of deposits is entirely borne by deposit holders and not by borrowers from the bank. Let E be the slope of LM. 

\[ \frac{dY}{dE} = \frac{1}{\phi} \frac{\phi - 1 - k + 1}{\phi - 1 + k} > 0. \]

5. In fact, the elasticity of demand for M1 with respect to the open market rate on 3-month treasury bills appears to have increased from 1981:4 to 1986:2. One interpretation of this increase is that a higher level of the own rate on derivative accounts. In conjunction with relatively little own rate variation, relatively little own rate variation increases the elasticity of demand for those accounts with respect to open market rates (Keeley and Zinnerman, 1986). This contrasts with our model: the open market interest elasticity declines when the own rate adjusts flexibly and the costs of intermediation are taken into account.

6. Let the demand schedules of the two groups be \( m_1 = 1000e^{0.5} \) and \( m_2 = 50e^{0.5} \), where \( m \) is the amount of money demanded and \( r \) is the rate of interest. The total market schedule is isoclinic to \( m_1 + m_2 = 1000e^{0.5} + 50e^{0.5} \). For \( r > 85, m_1 = 20,000, \) and \( m_2 = 20,000 \). The market elasticity of demand for money \( m_1 = 1.5 \). New inputs to money substitutes and the new schedule be \( m_1 = 700e^{0.5} \) and \( m_2 = 4e^{0.5} \); then \( m_1 + m_2 = 700e^{0.5} + 4e^{0.5} \). At \( r = 10, m_1 = 18,000, \) and \( m_2 = 7,105 \) and \( m_1 = 1.45 \)

7. Of M. Goldfield and D.E. Richel, in their authoritative survey of the demand for money, remarks that in regard to the implicit return on deposits before deregulation, "measuring the implicit return in an easy matter said it is perhaps not surprising, that this issue was largely ignored" (1990, 221).

REFERENCES


FRANCIS WAYLAND:

PERSPECTIVES OF A NINETEENTH CENTURY POLITICAL ECONOMIST ON THE "BUSINESS" OF HIGHER EDUCATION

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INTRODUCTION

To what extent should criteria of market efficiency guide resource allocation in higher education? Most of us in the academy do not believe that what goes on in the "ivory tower" should be judged by market standards; but those outside academia have not all been persuaded that the "business" of higher education should enjoy such exemption. The Bush Administration's Department of Justice, for example, has brought the Sherman Act to bear on data sharing within the Ivy League in relation to tuition charges, faculty compensation, and financial aid. Moreover, potential donors to higher education are significantly influenced by a suppliant institution's capacity to exercise business-like budgetary discipline.

How usefully can lessons from political economy inform decision-making in the "industry" of higher education? This paper inspects the contributions made by the Reverend Francis Wayland (1796-1865), who authored the most widely-read political economy text in pre-Civil War America and served for nearly three decades as President of Brown University. Wayland's views on the conduct of educational business and on classical political economy fitted together hand-in-glove. Indeed he insisted that both the processes and the products of higher education should be judged by economic principles.

Wayland assigned high urgency to educational reform. In his judgement, institutions that claimed the status of "colleges" were rarely worthy of that designation. Most of them offered little more than superficial exposure to dead languages to young men from the professional classes. This was out of touch, he maintained, with the needs of a new and growing country. He called for curricular innovations to make practical learning widely available and for sweeping changes in the organization of collegiate establishments.

In some measure, Wayland's thinking on educational issues was influenced by efforts of the Jeffersonians at the University of Virginia to break away from the curricular norm. He was certainly aware of developments there. Wayland, however, was unsympathetic toward one feature of the Jeffersonian style: a devout Baptist, he had no taste for "free-thinking" on matters of Christian doctrine. In his view, the promotion of useful education and the promotion of the faith were inextricably linked.

WAYLAND'S VERSION OF POLITICAL ECONOMY

Wayland was largely self-taught in political economy. Trained for a career in the Baptist ministry, he had a reputation in Boston as a dynamic preacher. His interest in political economy emerged largely as a by-product of his presidential duties at Brown, which he assumed in 1827. In the denominational colleges of New England at that time,