

# THE INTEREST COST-PUSH CONTROVERSY

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In business circles, and even in political discussions, the question is very often raised, how the rate of interest affects the prices of commodities. The practical business man is perhaps most often inclined to believe that an increase in the rate of interest is bound to increase the cost of all products and therefore to enhance prices, and he finds it very confusing when he hears a scientific economist or a representative of a central bank proclaim that the rate is increased in order to force prices down. It is obviously the duty of economic science to remove this confusion . . . .

GUSTAV CASSEL [1, p. 329]

Whenever the Fed seeks to fight inflation with restrictive monetary policy, a debate erupts between *tight-money proponents* and members of the so-called *interest cost-push school*. The former group argues that higher interest rates associated with tight money are necessarily anti-inflationary because they help choke off the excess aggregate demand that puts upward pressure on prices. The latter contingent, however, insists that higher interest rates are inherently inflationary because they raise the interest component of business costs, costs that must be passed on in the form of higher prices. According to the latter view, lower, not higher, interest rates are consistent with lower prices. Low interest rates, the argument goes, would lead to lower interest costs and therefore to lower prices of final products. Long-time Congressman Wright Patman of Texas was perhaps the best-known proponent of this view.<sup>1</sup>

Missing from the debate is a careful and systematic attempt to refute the interest cost-push doctrine. Few economists today regard the doctrine as important enough to warrant rebuttal. As Professors Lawrence Ritter and William Silber note in their widely-used textbook *Money* [5, p. 100], most professional economists today simply refuse to take the doctrine seriously and therefore typically tend to dismiss it out of hand.

<sup>1</sup> The pure interest cost-push doctrine should not be confused with the related argument that low interest rates help restrain inflation by encouraging capital formation that enhances labor productivity, lowers unit labor costs, and increases potential output. Unlike the interest cost-push doctrine, which asserts that interest rates affect prices *directly* through costs, this latter argument holds that interest rates affect prices *indirectly* through their prior impact on capital formation. Both arguments, of course, are advanced by modern proponents of low interest rate easy-money policies.

For the definitive refutation of the interest cost-push doctrine, it is necessary to go to the late 19th- and early 20th-century writings of the great Swedish economist Knut Wicksell, particularly his critique of the monetary doctrines of Thomas Tooke. Tooke, a formidable British monetary controversialist, leader of the so-called Banking school, author of the monumental six volume *History of Prices* (1838-57), and foremost collector of price and monetary data in the 19th century, had advanced the interest cost-push argument that high interest rates cause high prices and low rates low prices. Wicksell responded by exposing the fallacies in Tooke's argument and by demonstrating with the aid of a simple macroeconomic model that, contrary to Tooke's contention, high interest rate tight-money policies are inherently anti-inflationary whereas low interest rate easy-money policies are inflationary. In so doing, Wicksell established the theoretical foundations of the tight-money view.

This article examines the Tooke-Wicksell controversy and shows how Wicksell's analysis effectively answers the contentions raised by the interest cost-push school. The Tooke-Wicksell controversy is important not only because it produced the first clear statement of the interest cost-push doctrine as well as the first rigorous and systematic attempt to disprove it, but also because it helped establish the case for tight money and because it introduced the prototype of the analytical macroeconomic model that most monetary authorities use today in designing anti-inflationary monetary policies.

**Thomas Tooke and the Emergence of the Interest Cost-Push Doctrine** The controversy began with Tooke's 1844 attack on what he called "the commonly received opinion" that low money rates of interest raise prices and high rates depress them. [8, p. 77] Tooke emphatically rejected this conventional view, arguing instead that a lowering of loan rates tends to reduce, not raise, prices. Focusing solely on the cost aspects of interest and ignoring the influence on prices of interest-induced increases in borrowing, lending, the money stock, and spending, he asserted that a reduced loan rate "has no . . . tendency to raise the prices of commodities. On the contrary, it is a

cause of diminished cost of production, and consequently of cheapness." [8, p. 123] He then proceeded to elaborate this point in a passage that Representative Wright Patman would have heartily endorsed.

A general reduction in the rate of interest is equivalent to or rather constitutes a diminution of the cost of production . . . in all cases where an outlay of capital is required . . . [T]he diminished cost of production hence arising would, by the competition of producers, inevitably cause a fall of prices of all the articles into the cost of which the interest of money entered as an ingredient. [8, p. 81]

Written in 1844, these passages are virtually identical to Patman's 1952 assertion that "the more interest that business must pay for the capital it uses the more it adds to the cost of doing business. To that extent, increases in interest rates are inflationary." [3, p. 735] Tooke's statements, like those of Patman, embody all the essentials of the interest cost-push doctrine, namely (1) the notion that interest rates influence prices chiefly through costs, (2) the idea that movements of interest rates and prices are positively correlated, (3) the denial that low interest rates are inflationary, and (4) the contrary assertion that low rates in fact tend to reduce prices rather than to raise them. Tooke believed that these propositions, particularly the last, were amply confirmed by the facts.

And the presumption accordingly is [he writes] that the very reduced rate of interest which has prevailed within the last two years must have operated as one of the contributing causes of the great reduction of prices . . . which has occurred coincidentally with reduction in the rate of interest. [8, p. 81]

To Tooke, at least, it was obvious that a policy of pegging interest rates at arbitrarily low levels would not produce inflation.

**Wicksell's Critique of the Interest Cost-Push Doctrine** Tooke's interest cost-push doctrine went largely unnoticed for more than 50 years until Knut Wicksell challenged it in the closing years of the century. Wicksell's extensive comments on the doctrine—comments that Arthur Marget described as "the clearest statement we have on the subject" [2, p. 248]—may be found in his *Interest and Prices* (1898) and in the second volume of his *Lectures on Political Economy* (1905). In these works he criticized the doctrine on several grounds.

**Confusion of Relative Prices and Absolute Prices** First, he argued that the interest cost-push proposition confuses relative prices with the general level of prices.

. . . the proposition that prices of commodities depend on their costs of production and rise and fall with them, has a meaning only in connection with *relative* prices. To apply this proposition to the general level of money prices involves a generalization which is not only fallacious but of which it is in fact impossible to give any clear account. It can be concluded then that . . . Tooke's proposition must be regarded as *false*, both in theory and in practice. [9, pp. 99-100]

In particular, Tooke fails to perceive that interest rate movements cannot possibly influence the price level if, as he assumes, total spending and real output remain unchanged. With these magnitudes fixed, interest rate changes will affect only relative prices but not the absolute level of prices. The latter variable, Wicksell argued, is determined by aggregate demand and supply. Therefore interest rate movements cannot affect it unless they alter either aggregate demand or aggregate supply. In terms of the equation of exchange  $P = MV/Y$ , where  $P$  is the price level,  $M$  the money stock,  $V$  its velocity of circulation, and  $Y$  real output, interest rate movements will not affect  $P$  unless they alter  $MV$  (i.e., total spending) or  $Y$  (i.e., real output). If these aggregates remain unchanged, the price level also will remain unchanged. Interest rate movements in this case will affect *relative* prices, to be sure. Some prices will rise and some will fall, but the average of all prices will remain unchanged. For example, a rise in the market rate of interest would tend to raise the particular prices of interest-intensive goods, i.e., goods in which interest accounts for a significant portion of total costs. Confronted with the price increases, purchasers would demand fewer of these goods, thereby leading producers to cut back output and lay off labor and other factor resources. The resources released from the interest-intensive industries would seek employment in the noninterest-intensive industries tending to drive down wages and prices there. The net result would be a change in the *structure*, but not the overall level, of prices.

To summarize, Wicksell held that, given the level of total spending and real output, interest-induced changes in the prices of specific commodities would be offset by compensating changes in the prices of others, leaving the aggregate price level stable. In this regard he noted that a fall in the rate of interest would tend to lower the specific prices of capital-intensive goods, thereby reducing the outlay required to purchase those items and increasing the amount available for spending on other goods. The resulting increased spending on these latter items would bid up their prices enough to offset the drop in the prices of the former items, thereby leaving the average of prices unaltered. As Wicksell put it

A fall in the rate of interest . . . thus causes fluctuations in the relative prices of both these groups of commodities, but cannot exercise a depressing influence on the general price-level except in so far as it increases the actual volume of goods, the [quantity] of money remaining stable, and possibly gives rise to a slower circulation of money. [10, p. 180]

Since Tooke says nothing about the monetary, output, or velocity effects of interest rate changes he cannot explain how such changes affect general prices.

**Behavior of Noninterest Elements of Cost** Wick- sell also criticized the interest cost-push doctrine's tendency to assume that all noninterest components of costs remain unchanged when interest rates change. If this assumption were true, costs and prices would, as Tooke asserts, fully register underlying changes in the interest rate. Wicksell, however, denied the validity of this assumption. Noninterest cost elements, he argued, would not remain fixed in the face of interest rate changes. Instead they would vary and in so doing would offset or nullify the impact of interest rate changes on total costs. More precisely, a fall in the rate of interest would tend to result in compensating rises in wages and rents, leaving total costs unchanged. As Wicksell expressed it:

[Tooke's] argument is based on the inadmissible, not to say impossible, assumption that wages and rent would at the same time remain constant, whereas in reality a lowering of the rate of interest is equivalent to a raising of the shares of the other factors of production in the product. [10, p. 183]

The mechanism whereby a fall in the interest rate raises the relative shares of the other factors is as follows: The fall in the interest rate initially reduces costs relative to prices, thus giving profit-seeking entrepreneurs an incentive to expand their operations. To expand operations, however, entrepreneurs must hire more land and labor. Assuming those resources are already fully employed, the resulting increased competition for them only serves to bid up their prices, thereby raising the rent and wage components of total costs. In this manner the fall in the interest component of business costs is counter- balanced by rises in the wage and rent components with the aggregate level of costs and prices remaining unchanged.

**Interest Rates, the Balance of Payments, and Gold Flows** Wicksell's third criticism of the high-interest-rates-cause-high-prices argument is that it is in apparent "conflict with the well-accredited fact that a *rise* in the rate of interest has always

shown itself to be the appropriate method of checking an unfavorable balance of payments and of instigating a flow of bullion from abroad." In other words, the doctrine cannot explain why rises in the bank rate tend to correct trade balance deficits and reverse gold outflows. For according to the interest cost doctrine, such rises should, by pushing up domestic prices relative to foreign ones, *worsen* the trade balance instead of improving it.

If Tooke's view were correct we should be confronted by the curious situation . . . that in order to improve the discount rate and the balance of trade, the banks would take steps which, on his theory, would lead to higher costs of production and higher prices and to a further restriction of the already too limited export of goods. [10, p. 186]

Conversely,

the opposite case of a *favorable* balance of payments leads to equally absurd consequences. A favorable balance would cause an inflow of bullion, and this clearly would . . . bring about a lowering of the rate of interest. The result according to Tooke would be a still further *fall* in domestic prices . . . so that the balance of payments would become more and more favorable and money would flow in on an ever-increasing scale. [9, p. 99]

In short, the interest cost-push doctrine implies, contrary to fact, that the foreign trade balance is perpetually in unstable equilibrium, with trade deficits or surpluses becoming progressively larger and larger in a monotonic explosive sequence.

**Credit Market Instability** Wicksell also pointed out that Tooke's doctrine implies that money and credit markets are likewise in a state of dynamic instability. For if it were true that a fall in interest rates produces a drop in prices, then a lower money rate of interest would lead to reductions in borrowing, lending, and money creation and thus to further downward pressure on money rates. That is, with lower prices, less money and credit would be required to finance the same level of real transactions. The demand for loans would therefore contract and money would flow into the banks. In an effort to expand loans and reduce excess reserves, banks would lower the rate of interest still further causing a further drop in prices and a further decline in the demand for loans. Via this sequence the rate of interest would eventually fall to zero. Conversely, a rise in the interest rate would, according to Tooke's theory, produce a rise in prices that leads, via a rising demand for loans, to further increases in the interest rate and prices and so on in an explosive upward spiral. "In other words, the money rate of interest would be in a state of unstable equilibrium, every

move away from the proper rate would be accelerated in a perpetual vicious circle." [10, p. 187]

In actuality, however, money and credit markets are not in unstable equilibrium. This fact, Wicksell writes, is clearly a stumbling block for Tooke's theory and is sufficient reason for rejecting it. [10, p. 186]

### Natural Rate Versus Market Rate of Interest

Finally, Wicksell criticized the interest cost-push doctrine for failing to distinguish between the *market* and *natural* or equilibrium rate of interest. The former of course is the loan rate or cost of money. The latter, however, is the expected marginal yield or internal rate of return on newly-created units of physical capital. It is also the rate that equilibrates desired real saving with intended real investment at the economy's full-capacity level of output. Or what amounts to the same thing, it is the rate that equates aggregate demand for real output with the available supply. This latter definition implies that the natural rate is also the interest rate that is neutral with respect to general prices, tending neither to raise nor to lower them. In other words, if the market rate were at the level of the natural rate, price stability would prevail.

On the basis of the foregoing analysis Wicksell held that price movements are generated by the differential between the two rates and not, as Tooke claimed, by the absolute level of the market rate alone. In other words, the level of the market rate per se is irrelevant, contrary to Tooke's theory. The market rate, whether high or low, rising or falling, cannot affect general prices as long as it remains equal to the natural rate. For if the two rates are equal, intended capital formation equals intended real saving, aggregate real demand therefore equals aggregate real supply, and price stability results. Only if the market rate deviates from the natural rate would price changes occur.

**Wicksell's Model** The foregoing summarizes Wicksell's purely negative criticism of the interest cost-push doctrine. His positive contribution consists of a theory of how interest rate movements influence prices not through costs but rather through excess aggregate demand supported and financed by money growth. His theory concludes, contrary to the interest cost-push doctrine, that high interest rate tight-money policies are anti-inflationary while low interest rate easy-money policies are inflationary. He reached these conclusions via the following route.

First, he argued that the excess of investment over saving at full employment is determined by the differ-

ence between the natural and the market rates of interest. As previously mentioned, the natural rate is the rate that equilibrates real investment and real saving. As long as the market rate is equal to the natural rate, saving will equal investment and the economy will be in equilibrium. But if the market rate should fall below the natural rate there will be an excess of desired investment over desired saving. The explanation is straightforward. Given the natural rate, a fall in the market rate lowers the cost of capital relative to its yield thereby stimulating investment. At the same time, the fall in the market rate lowers the reward to thrift thereby discouraging saving. Investment expands and saving contracts producing an excess of the former over the latter.<sup>2</sup> The opposite happens when the market rate is raised above the natural rate, i.e., desired saving exceeds desired investment. The relationship between the investment-saving gap and the natural-market interest rate differential may be expressed as

$$(1) \quad I - S = a(\bar{R} - R)$$

where  $I$  is investment,  $S$  saving,  $\bar{R}$  the exogenously-determined natural rate of interest,  $R$  the market rate, and  $a$  is a constant coefficient relating the interest rate differential to the investment-saving gap.

Second, Wicksell assumed that the gap between investment and saving generates a corresponding expansion in the demand for bank loans, i.e.,

$$(2) \quad \dot{L}_d = I - S$$

where  $\dot{L}_d$  is the change in the demand for bank loans, the dot signifying the rate of change (time derivative) of the attached loan demand variable. This equation states that when the investment demand for loanable funds exceeds the funds supplied by voluntary saving, there will be an expansion in the demand for bank loans to cover the difference.

Third, Wicksell assumed that the banking system accommodates the extra loan demand with a corresponding expansion of loan supply, i.e.,

$$(3) \quad \dot{L}_s = \dot{L}_d$$

where  $\dot{L}_s$  is the expansion in the supply of bank loans. This equation implies a perfectly elastic supply of loans and thus corresponds to Wicksell's statement that

<sup>2</sup> "If the banks lend their money at materially lower rates than the normal [i.e., natural] rate . . . then in the first place saving will be discouraged . . . . In the second place, the profit opportunities of entrepreneurs will thus be increased and the demand for [investment] goods . . . will evidently increase . . . ." [10, p. 194]

With a pure credit system [in which the money stock consists entirely of demand deposits and no reserve constraint exists to limit loan expansion as when the central bank stands ready to provide unlimited reserves to the banking system in order to prevent market rates from rising] the banks can always satisfy any demand whatever for loans and at rates of interest however low . . . . [10, p. 194]

Fourth, he maintained that money growth exactly matches bank loan expansion dollar for dollar. In his own words, "bank deposits and bank loans must always march together." [10, p. 86] This condition can be expressed as

$$(4) \dot{M} = \dot{L}_s$$

where  $\dot{M}$  is the expansion of the money stock. The money stock expands identically with loans because new loans are granted in the form of increases in the checking deposits of borrowers and these deposits are part of the money supply.

Fifth, he held that growth in the money stock is accompanied by corresponding increases in aggregate demand (total spending) for an exogenously-given full capacity level of real output. Given this level of real output—which Wicksell treats as a fixed constant throughout his analysis<sup>3</sup>—the increased spending manifests itself in the form of excess demand in the commodity market. In this way money growth converts the excess *desired* demand implicit in the investment-saving discrepancy of Equation 1 into excess *effective* demand. The relationship between money growth and excess demand may be expressed as

$$(5) E = \dot{M}$$

where  $E$  is excess demand. This equation states that excess demand cannot occur without an identical amount of money growth to support and finance it.

Finally, he argued that prices are bid up by excess demand, with the rate of price rise being roughly proportional to the level of excess demand.<sup>4</sup> The

<sup>3</sup> Regarding the full employment assumption Wicksell states that "we are entitled to assume that all production forces are already fully employed, so that the increased monetary demand . . . leads to an . . . increased demand for commodities, [and] to a rise in the price of all . . . goods . . ." [10, p. 195] Note also that he dismisses as unimportant the possibility that an interest-induced rise in capacity output might work to lower prices. This price-reducing output effect, he said, would be "very small." More important, it would "occur only once and for all" and thus would be swamped by the cumulative (i.e., continuous) rise in prices stemming from the interest rate differential. [9, pp. 142-3]

<sup>4</sup> Note his assertion that "This increased demand . . . necessarily results in a rise in all prices—a rise which it is simplest to regard as proportional to the increase in demand." [9, p. 144]

relationship between the rate of price change and the level of excess demand can be expressed as

$$(6) \dot{P} = bE$$

where  $\dot{P}$  is the rate of price rise, the dot signifying the rate of change (time derivative) of the attached price level variable, and  $b$  is a constant coefficient relating excess demand to price changes. According to the equation, prices will rise when excess demand is positive, fall when excess demand is negative, and stabilize at a constant level when excess demand is zero.

Taken together Equations 1-6 constitute a simple macrodynamic model in which a decline in the market rate of interest below the natural rate results in excess demand that bids up prices with the money stock simultaneously expanding to accommodate and validate the price increases. The model can be condensed to a single reduced form equation by substituting Equations 1-5 into Equation 6 to yield

$$(7) \dot{P} = ab(\bar{R}-R)$$

which says that the ultimate cause of price level changes is the differential between the natural and market rates of interest. According to the equation, prices rise if the market rate is below the natural rate, fall if the market rate is above the natural rate, and remain stable—i.e., neither rise nor fall—if the market rate equals the natural rate. Similar equations can be derived for the money growth and excess demand variables showing that they too are determined solely by the interest rate differential.

On the basis of Equation 7 Wicksell reached several conclusions contradicting Tooke's interest cost-push doctrine. First, given the natural rate, a policy of pegging the market rate at arbitrarily low levels will produce a cumulative rise in prices. As Wicksell himself put it, if the banks "were to lower their rate of interest, say 1 percent below its ordinary [i.e., natural] level, and keep it so for some years, then the prices of all commodities would rise and rise and rise without any limit whatever." [11, p. 547] In other words, contrary to Tooke's doctrine, a low interest rate cheap-money policy is inflationary.

Second, if prices are rising, the market rate is too low and must be raised to slow and ultimately stop the inflation. This will require a reduction and eventually a cessation of money growth. Therefore a higher interest rate tight-money policy is inherently anti-inflationary, contrary to the interest cost-push doctrine.

Third, a rise in the market rate above the natural rate will produce an absolute decrease in the price

level. In Wicksell's own words, if "the rate of interest is maintained no matter how little *above* the current level of the natural rate, prices will fall continuously and without limit." [9, p. 120] Thus, far from being inflationary as Tooke claimed, higher interest rates may well be exactly the opposite, i.e., deflationary.

To summarize, given the natural rate of interest, the rate of price increase varies inversely, not directly, with changes in the market rate. Thus lower rates are inflationary and higher rates anti-inflationary, contrary to Tooke's interest cost-push doctrine.

**Tooke Versus Wicksell on the Gibson Paradox**  
 Finally, ~~Wicksell used his model to counter Tooke's~~ claim that the statistical data offered strong empirical support for the interest cost-push doctrine. Tooke's own empirical studies had established that historically interest rates and prices tend to move up and down together—a phenomenon that Keynes was later to call the Gibson paradox. On the basis of these studies, Tooke had argued that the coincidental movements of interest rates and prices constituted strong empirical proof that high interest rates cause high prices and low rates low prices. Wicksell, however, disagreed. He denied that the positive correlation between movements in interest rates and prices implied that the former caused the latter. Instead, he argued that both rising interest rates and rising prices stemmed from a common cause, namely exogenous shifts in the natural rate—due to technological change, innovation, and other external developments—followed by corresponding lagged adjustments in the market rate.<sup>5</sup> He explained how the lag in the adjustment of the passive market rate to the active natural rate could result in coincidental rises in interest rates and prices. The lag, he said, meant that while the market rate was rising it was still below the natural rate, thereby causing excess aggregate demand and hence a continuous rise in prices.

The price rise itself he held to be the key component of the process by which the market rate adjusts itself to the natural rate. Specifically he maintained that under a metallic monetary system a rising price level affects market interest rates through its prior impact on bank reserves. He explained that rising prices produce two kinds of gold drains that threaten the depletion of banks' gold reserves. One is an external drain to cover an adverse trade balance stemming from the domestic inflation. The other is an internal drain of gold into hand-to-hand circula-

<sup>5</sup> What follows relies heavily on Patinkin's analysis of Wicksell's cumulative process. See [4, pp. 587-97].

tion and into nonmonetary industrial uses. To halt these drains and protect their reserves banks are forced to raise the loan rate until it eventually equals the natural rate. In this way rising prices serve as the connecting link between the natural and market rates of interest. This link may be expressed by the relationship

$$(8) \quad \dot{R} = c\dot{P}$$

where  $\dot{R}$  is the rate of change of the market rate of interest and  $c$  is a coefficient relating price changes to changes in the market rate.

The foregoing equation, which states that interest rate changes are proportional to price level changes, reconciles Wicksell's theoretical model with Tooke's empirical findings of a positive correlation between movements in interest rates and prices. The equation shows that interest rates and prices rise and fall together. Yet, within the context of Wicksell's entire model, the equation does not imply that higher interest rates produce higher prices. On the contrary, the model states that both the rise in prices and the rise in the interest rate are caused by that interest rate being too low relative to the natural rate. In sum, Wicksell held that an initial rise in the natural rate relative to the market rate generates the price increases that feed back into the market rate causing it to rise toward the natural rate.<sup>6</sup> Thus, contrary to Tooke's contention, a positive correlation between interest rates and prices constitutes no disproof of the proposition that low interest rate easy-money policies are inflationary and high interest rate tight-money policies are deflationary. To disprove these propositions one would have to demonstrate that price movements are positively correlated not with the market rate alone but rather with the *differential* between that rate and the natural rate. Tooke did not do this. Hence his empirical correlations constitute no proof of the interest cost-push doctrine. Nor do they constitute disproof of the rival tight-money view.

<sup>6</sup> Wicksell assumed that the market rate in a metallic monetary system would converge smoothly on the natural rate without overshooting. In terms of his model, the convergent behavior of the market rate can be described by substituting Equation 7 into Equation 8 to obtain  $\dot{R} = abc(\bar{R} - R)$  and then solving this differential equation for the time path of the market rate. The resulting expression for the time path of the market rate is

$$R(t) = (R_0 - \bar{R})e^{-(abc)t} + \bar{R}$$

where  $t$  is time,  $e$  is the base of the natural logarithm system, and  $R_0$  is the initial disequilibrium level of the market rate. This expression states that the market rate will converge smoothly on the natural rate providing that the product of the coefficients  $a$ ,  $b$ , and  $c$  (i.e., the multiplicative term  $abc$ ) is positive, i.e., larger than zero.

**The Current Relevance of Wicksell's Model** The preceding sections have described Wicksell's model of price level movements. It remains to show how his analysis helps answer current and recent complaints that high interest rates cause high prices. According to Professors Ritter and Silber, the best answer to these complaints is that high interest rates accompanied by monetary expansion are indeed inflationary whereas high rates associated with tight money—defined by them as zero or negative money growth—are not. High rates, they claim, are incapable of producing inflation without an accommodative expansion of the money stock. Without this monetary expansion, further increases in the price level would be difficult to finance. At that point the higher interest rates would prevent further spending and the inflationary process would grind to a halt. In short, higher interest rates are not inflationary unless ratified by monetary growth. The key factor, they conclude, is the behavior of the money stock and not the high interest rates themselves. [5, pp. 102-3]

The Ritter-Silber conclusion is fully consistent with Wicksell's analysis. In his model too the behavior of the money stock distinguishes cases where high interest rates are inflationary from cases where they are not. This can be shown by substituting Equations 1-3 into Equation 4 to yield

$$(9) \quad \dot{M} = a(\bar{R} - R)$$

which states that money growth is directly related to the natural rate-market rate differential. Taken together, Equations 9 and 7 state that if the money stock is growing, then high market rates are indeed producing higher prices. For the positive growth of the money stock indicates that the market rate, no matter how high, is nevertheless below the natural rate and is thus generating the monetary expansion that supports a continuous rise in prices. Contrariwise, if the money stock is constant or falling, then the market rate of interest, no matter how high, is noninflationary or deflationary. For when money growth is zero or negative the market rate is equal to or above the natural rate and is thereby tending either to stabilize prices or to reduce them. Thus,

contrary to the contentions of the interest cost-push school, high interest rates associated with tight money are noninflationary.

**Conclusion** This article has reviewed the Tooke-Wicksell controversy concerning the influence of interest rates on prices. The article shows that neither the anti-inflationary tight-money view nor its rival, the interest cost-push doctrine, are new. In particular, the article disproves the recent claim that "one of the first economists to concern himself with the cost-push effect of interest rate changes was John Kenneth Galbraith." [6, p. 1049 n. 1] Contrary to the foregoing assertion, the interest cost-push doctrine long predates Galbraith's 1957 version, having been enunciated by Thomas Tooke more than 100 years earlier.

The article also disproves the allegation that professional economists are not even interested in answering the interest cost-push doctrine, i.e., that they simply "refuse to take it seriously and typically dismiss it out of hand." [5, p. 100] Whether or not this charge applies to modern economists, it certainly does not apply to Knut Wicksell. For, as documented in the article, Wicksell took the doctrine seriously enough to attempt to refute it rigorously and systematically. In so doing, he provided the definitive critique of the doctrine. He also developed an analytical model that established the theoretical foundations of the tight-money view and that provided a framework for anti-inflationary monetary policy. His model supports the current case for tight money just as Tooke's views constitute a key argument underlying the opposite case for easier money and lower interest rates. In short, the ideas and arguments advanced in the Tooke-Wicksell debate continue to survive and flourish in current discussions of monetary policy. For better or worse, the interest cost-push doctrine refuses to die, thereby supporting George Stigler's contention that economic theories—no matter how fallacious—never perish. The survival of the doctrine in the face of Wicksell's criticism aptly illustrates Stigler's dictum that "there is no obvious method by which a science can wholly rid itself of once popular theories." [7, p. 201]

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# FORECASTS 1979

## SLOW GROWTH, CONTINUED INFLATION, BUT NO RECESSION

*William E. Cullison*

*The views and opinions set forth in this article are those of the various forecasters. No agreement or endorsement by this Bank is implied.*

The economy in 1979 will be plagued with slow growth, increased unemployment, and continuing high rates of inflation. This gloomy prognostication is not the woeful wailing of some modern day Cassandra, but the general conclusion reached by the leading business and academic economists who have published forecasts for the 1979 economy. While the consensus forecast provides little to cheer about, it does have a favorable side. The group offering quarter-by-quarter forecasts thinks that the rate of inflation will subside modestly during the year. Moreover, the consensus of this group is that there will be no recession (using the casual definition of a recession, two consecutive quarters of negative growth in real GNP). According to the consensus of forecasts received by this Bank, real GNP growth (measured in constant 1972 dollars) will decline to zero in the third quarter of 1979 before beginning a slow advance in the fourth quarter.

The major areas of concern to the forecasters this year include the homebuilding industry and the prospects for consumer spending in general. Heavy borrowings by consumers in 1978 imply heavy repayment burdens in 1979. Moreover, slower economic growth coupled with continuing high rates of price increase are expected to erode consumer purchasing power. The current high levels of mortgage and other interest rates, even if they rise no further, are expected to have a slowing effect on the housing industry and on other consumer purchases in 1979. Far fewer consumers than in 1978 are expected to re-finance their homes in order to finance current consumption expenditures. Reduced income taxes are seen as helping to sustain consumer spending, although higher social security taxes will offset some of this effect.

On the other hand, the forecasters generally expect nonresidential construction, and business fixed investment in general, to remain relatively strong.

Most of them think that inventories, having been accumulated cautiously during the current expansion, will not be subject to large swings in 1979.

These elements led the forecasters to conclude that real GNP will be 2.4 percent higher in 1979 than in 1978, the 1979 Consumer Price Index will average 8.2 percent higher, and the unemployment rate will average 6.6 percent compared to 6.0 percent in 1978.

Last year, the consensus prediction for real GNP growth, 4.3 percent, was close to the actual increase for the year as a whole, 3.9 percent. Last year's forecasters expected real GNP to increase most rapidly in the first quarter of 1978, with rates of growth tapering off after that. Because of the extended coal strike and adverse weather conditions, however, the economy actually had slightly negative real growth in the first quarter with a resurgence in the second. Then the economy experienced a general slowing in the third quarter, followed by what appears to be a growth resurgence in the fourth.

Many of last year's forecasters had expected an improvement in the foreign trade deficit, measured on a National Income Accounts basis. They were basing their predictions upon expectations of recovery abroad, as they are to some extent this year. Their predictions were, of course, not fulfilled. This year, the forecasters expect U. S. exports to benefit from the depreciation in the exchange value of the dollar that took place in 1978 and they expect imports to be dampened by slower growth in the U. S. economy as well as by the price effects of the dollar's decline.

This article attempts to convey the general tone and pattern of some 40 forecasts received by the Research Department of this Bank. Not all of these forecasts are comprehensive, and some incorporate estimates of future behavior of only a few key economic indicators. Some are made in terms of annual averages while others are made on a quarter-by-quarter basis, and a consensus drawn from one of these groups may differ from that drawn from the other. Moreover, the individual forecasts are based on varying assumptions and this should be taken into account in interpreting the consensus.

*This Bank also publishes the booklet Business Forecasts 1979, which is a compilation of representative business forecasts with names and details of the various estimates. No summary article can ever be as informative as the actual forecasts themselves. Serious readers are urged to look at the individual forecasts in more detail in Business Forecasts 1979.*

### 1978 FORECASTS IN PERSPECTIVE

The consensus forecast for 1978 current dollar GNP, published in last year's January/February *Economic Review*, predicted an increase of 10.4 percent over 1977. The rates of increase forecast ranged from 9.0 percent to 11.3 percent. Using the revised 1977 GNP total of \$1,887.2 billion, the consensus forecast for 1978 GNP would have been \$2,083.5 billion and the range from \$2,057.0 billion to \$2,100.4 billion. Increasing prices were expected to account for 5.9 percent of the gain in GNP, so GNP measured in constant dollars, or real GNP, was expected to rise 4.3 percent.

Current estimates by the U. S. Department of Commerce indicate that GNP in 1978 actually increased 11.7 percent. Prices, however, increased more than anticipated, so preliminary estimates put the increase in real GNP around 3.9 percent—less than the 4.3 percent increase predicted by the consensus of last year's forecasters.

The forecasters expected the unemployment rate to average 6.7 percent for the year. At present, preliminary estimates indicate an average of 6.0 percent.

As with the aggregate GNP figure, the forecasters also under-predicted the components of GNP. Most of the under-prediction, however, can be attributed to underestimating the rate of inflation. Personal consumption spending was forecast to increase 9.3 percent, but it actually rose 11.0 percent.

Consumer purchases of durable goods, estimated to increase 6.7 percent, actually rose 10.8 percent. Consistent with the underestimate of consumer durables, purchases of nondurables were estimated to increase 8.6 percent, whereas the actual rate of increase was 9.8 percent. Consumption spending for services was forecast to increase 11.0 percent, so its actual 12.2 percent increase came in closer to the mark than the other component forecasts.

The forecasters expected a more moderate rate of increase in gross private domestic investment than the 21 percent rate of growth registered in 1977. Although the growth rate did, in fact, moderate to 15.7 percent, the forecasters had expected it to be

only 11.8 percent—a forecasting error of 3.9 percentage points. By contrast, the consensus prediction for inventory investment, which is a common source of error, was relatively accurate. The consensus expected inventory investment to remain constant. It actually rose \$0.1 billion from the revised \$15.6 billion averaged for 1977.

Net exports, which the forecasters often find difficult to estimate accurately, was overestimated by \$3.8 billion last year, although the actual figure, —\$11.8 billion, was well within the range of forecasts. The range was, as it often is, quite large, from +\$1.7 to —\$14.0 billion.

The forecasts of the last major component of GNP, government purchases of goods and services, centered around a rate of increase of 12.1 percent. Actual government spending is now thought to have risen 10.2 percent.

All in all, the last year's forecasters did well in predicting changes in real GNP, but because they underestimated the rate of price increase, they underestimated current dollar GNP and its components.

Regarding profits and industrial production, the forecasts for 1978 underestimated profits but predicted industrial production accurately. Before-tax corporate profits were predicted to rise 6.3 percent; most observers now think they increased about 14.1 percent. The index of industrial production rose 5.5 percent, exactly as predicted.

As with the implicit price deflator, the forecasters underestimated the rise in the Consumer Price Index. Consumer prices were expected to rise 6.1 percent, but current figures indicate a rise of 7.7 percent.

The consensus of the quarter-by-quarter forecasts for 1978 had current dollar GNP rising 10.7 percent in the first quarter, 9.8 percent in the second quarter, 10.2 percent in the third quarter, and 9.9 percent in the fourth, measured at annual rates. The realized quarterly increases, measured at annual rates, were 7.1 percent, 20.6 percent, 10.7 percent, and 14.7 percent. For real GNP, the consensus forecast called for annual rates of increase of 4.8 percent, 4.5 percent, 3.9 percent, and 3.5 percent for the four quarters, respectively. The realized increases for the first three quarters, were —0.1 percent, 8.7 percent, and 2.6 percent, while the preliminary number for the fourth quarter is now placed at 6.1 percent.

The forecasters, then, exhibited considerably less prescience about the quarterly path of the economy than they did about average figures for the year as a whole. They expected relatively greater growth during the first quarter of the year, with the growth rates tapering off throughout the year. Instead, the

economy experienced its slowest growth in the first quarter, with the rate fluctuating about throughout the year. It is true, however, that the slowness in the first quarter resulted from unforeseen circumstances—the coal strike and the unusually severe winter weather. The forecasters did rather well for the first half, taken as a whole.

The limits of forecasting prescience were equally apparent in the discrepancy between actual and predicted quarter-by-quarter behavior of the unemployment rate. The unemployment rate was expected to average 6.8 percent in the first quarter and to decline only to 6.6 percent by the fourth quarter. Instead, the unemployment rate surprised almost everyone by dropping sharply in the first quarter—from 6.6 percent in the fourth quarter of 1977 to 6.2 percent; and fluctuating around 5.9 percent for the remainder of the year.

## 1979 FORECASTS IN BRIEF

**Gross National Product** Forecasts for 1979 current dollar GNP center around \$2,322 billion. This consensus forecast indicates an approximate 10.2 percent yearly gain, less than the 11.7 percent increase apparently registered in 1978. Prices, as measured by the implicit deflator for GNP, are expected to increase 7.6 percent, about the same as the 7.4 percent rate of increase registered last year. As a result, GNP measured in constant dollars, or real GNP, is projected to rise only 2.4 percent, compared to 3.9 percent in 1978. Estimates for increases in current dollar GNP range from 9.0 percent to 11.0 percent. The consensus of quarterly estimates indicates a slowing of the economy during the year. It calls for increases of 10.5 percent in the first quarter of 1979, 7.8 percent in the second, 7.1 percent in the third, and 6.8 percent in the fourth.

### RESULTS FOR 1978 AND TYPICAL FORECASTS FOR 1979

	Unit or Base	Preliminary 1978*	Forecast 1979**	Percentage Change	
				1977/1978	1978/1979
Gross national product .....	\$ billions	2107.0	2322	11.7	10.2
Personal consumption expenditures .....	\$ billions	1339.7	1471	11.0	9.8
Durables .....	\$ billions	197.6	210	10.8	6.5
Nondurables .....	\$ billions	525.8	577	9.8	9.7
Services .....	\$ billions	616.3	686	12.2	11.3
Gross private domestic investment .....	\$ billions	344.6	369	15.7	7.1
Business fixed .....	\$ billions	222.1	249	16.6	12.2
Residential structures .....	\$ billions	106.8	109	16.2	1.7
Change in business inventories .....	\$ billions	15.7	14	—	—
Government purchases .....	\$ billions	434.2	482	10.2	11.0
Net exports .....	\$ billions	-11.8	-5.5	—	—
Gross national product (1972 dollars) .....	\$ billions	1385.0	1418	3.9	2.4
Plant and equipment expenditures .....	\$ billions	152.5 <sup>e</sup>	171	12.3	12.0
Corporate profits before taxes .....	\$ billions	198.5 <sup>e</sup>	204	14.1	2.6
Private housing starts .....	millions	1.98	1.71	-0.3	-13.9
Automobile sales (domestic) .....	millions	9.25	8.58	2.0	-7.2
Rate of unemployment .....	percent	6.0	6.6	—	—
Industrial production index .....	1967=100	145.0	149.9	5.5	3.4
Consumer price index .....	1967=100	195.4	211.2	7.7	8.2
Implicit price deflator .....	1972=100	152.0	163.6	7.4	7.6

\* Data available as of January 18, 1979.

\*\* Figures are constructed from the typical percentage change forecast.

<sup>e</sup> Estimated.

Personal consumption expenditures are expected to total \$1,471 billion for 1979, up 9.8 percent from 1978. The estimates for consumption spending range from an increase of 9.1 percent to an increase of 10.5 percent. Forecasters estimate that expenditures for *durable goods* will rise 6.5 percent for the year, while expenditures for nondurables and services are projected to advance 9.7 percent and 11.3 percent, respectively. The slowdown in durable goods expenditures is expected to be felt primarily in sales of appliances, furniture, and automobiles as a result of generally heightened consumer caution.

Government purchases of goods and services are projected to total \$482 billion. This estimate represents a 11.0 percent increase over 1978, somewhat more than the 10.2 percent gain of the previous year. The 1979 forecasts for government purchases range from increases of 9.2 percent to 11.4 percent.

Gross private domestic investment is expected to rise by 7.1 percent in 1979, following a 15.7 percent increase in 1978. Inventory investment is expected to be at a somewhat lower level than in 1978, indicating a continuation of the cautious inventory policies seen in recent years. Residential construction, of course, is expected to be the weakest sector of the economy, increasing only 1.7 percent, compared to 16.2 percent in 1978. Business fixed investment spending will hold up reasonably well, if the forecasts are correct. That sector is expected to register a 12.2 percent gain compared to 16.6 percent last year. The array of forecasts this year, as is usually the case, diverge more from the consensus in the investment area than in any other. Expectations for residential construction range from decreases of 5.3 percent to increases of 3.2 percent. For business fixed investment, estimated increases range between 9.2 percent and 14.9 percent. Forecasts for investment in business inventories, for which the consensus was \$14.0 billion, range from \$2.0 billion to \$20.0 billion.

**Industrial Production** The typical forecast for the Federal Reserve index of industrial production (1967 = 100) in 1979 is 149.9, an increase of 3.4 percent. This prediction calls for more moderate expansion than in 1978, when the index increased 5.5 percent.

**Housing** The construction industry is expected to feel the effects of high mortgage rates and rising construction materials costs in 1979. Activity in this sector is expected to be almost 14 percent below the 1978 pace. Private housing starts—which totaled almost 2 million in 1978—are expected to total only

### TYPICAL\* QUARTERLY FORECASTS FOR 1979

Percentage Quarter-to-Quarter Annual Rates  
Unless Otherwise Indicated

	Forecast 1979			
	I	II	III	IV
Gross national product	10.5	7.8	7.1	6.8
Personal consumption expenditures	9.9	8.9	8.5	8.6
Durables	5.3	4.7	1.9	1.4
Nondurables	10.5	9.2	7.6	8.2
Services	11.1	10.5	10.3	9.6
Gross private domestic investment	14.4	5.7	-5.9	-0.5
Business fixed investment	12.8	10.9	8.3	7.1
Residential construction	-2.2	-10.5	-12.5	-5.8
Change in business inventories†	17.9	15.0	11.7	6.4
Government purchases	9.6	9.4	8.3	10.2
Net exports‡	-2.2	-1.5	1.4	1.8
Gross national product (1972 dollars)	3.1	1.4	0.4	1.2
Plant and equipment expenditures	12.5	10.1	8.0	6.5
Corporate profits before taxes	-3.3	-5.1	-14.9	-0.5
Private housing starts	-33.8	-28.4	-22.9	15.6
Industrial production index	2.5	1.6	-3.1	0.0
Rate of unemployment‡	6.1	6.4	6.6	6.8
Consumer price index	8.7	7.6	6.8	6.9
GNP implicit deflator	7.7	7.2	6.5	7.0

\* Median

† Levels, billions of dollars

‡ Levels, percent

1.7 million units in 1979. According to preliminary estimates, housing starts ran at average annual rates of 2.1 million in October and November of 1978, so the predicted number for 1979 represents a considerable decline from the year-end 1978 rate. Still, forecasters expect the downturn in construction to be relatively mild. Credit is expected to be available, although at high cost to home builders and buyers.

**Corporate Profits** All the forecasters expect little increase in pretax profits this year. The most pessimistic forecaster expects no increase in corporate profits. The most optimistic predicts a 9.0 percent rise. The consensus forecast calls for an increase in

pretax profits of 2.6 percent, to \$204 billion. This would follow a gain of approximately 14.1 percent in 1978. Hence, corporate profits are expected to reflect the slower growth of the economy, but they are not expected to decline precipitously as they normally do in recession years.

**Unemployment** Most forecasters are predicting an increase in the rate of unemployment during 1979. The typical forecast for the year's average is around 6.6 percent. This will be only 0.6 percentage points above the 1978 average, but considering that the unemployment rate at year-end 1978 stood around 6.0 percent, a 6.6 percent average for 1979 indicates that the unemployment rate will be considerably higher by year-end. The quarterly consensus forecast, in fact, puts the unemployment rate at 6.9 percent in the fourth quarter.

**Prices** This year the forecast indicates that the rate of price increase will remain at about last year's rate. The implicit GNP deflator, which rose 7.4 percent in 1978, is expected to increase 7.6 percent in 1979. The Consumer Price Index, however, is expected to rise 8.2 percent, slightly higher than the 1978 average increase of 7.7 percent.

**Net Exports** The nation's trade position, measured on a National Income Accounts basis, was approximately \$11.8 billion in deficit in 1978 and is expected to improve moderately in 1979 to show an average deficit of only \$5.5 billion for the year. The forecasters expect import growth to moderate as the economy slows, and they also foresee an increase in exports from the continuing recovery abroad and as a result of more competitive export prices. The estimates for net exports varied between -\$8.5 billion and +\$5.6 billion.

**Quarter-By-Quarter Forecasts** Fifteen forecasters made quarter-by-quarter forecasts for 1979. As indicated by the accompanying table, the forecasters expect generally slow rates of growth in each quarter of the year. Translated into percentages and annualized, the expected median growth rates of real GNP are 3.1 percent, 1.4 percent, 0.4 percent, and 1.2 percent for the four quarters, respectively.

These rates are median forecasts, however, and there is considerable variation among the forecasters. The forecasts for increases in real GNP in the first quarter range from 0.3 percent to 5.3 percent; second quarter expectations range from decreases of 2.0 percent to increases of 3.0 percent; third quarter from -2.1 percent to +4.8 percent; and the fourth from -3.0 percent to +3.0 percent.

If the median forecasts are realized, the 6.8 percent unemployment rate for the fourth quarter will represent a considerable worsening of the current employment picture. With a civilian labor force of around 97 million persons, an increase of 0.8 percentage points in the average unemployment rate means an increase in unemployment of 776 thousand persons. Several of the forecasters expect the unemployment rate to be as high as 7.2 percent by year-end 1979.

The forecasters expect the rate of increase in the prices of items included in GNP to move somewhat erratically during the year. The consensus forecasts were for increases of 7.7 percent, 7.2 percent, 6.5 percent, and 7.0 percent for the four quarters, measured at seasonally adjusted annual rates. Price increases forecast ranged from 7.2 percent to 7.7 percent in the first quarter, 6.1 percent to 8.0 percent in the second, 5.2 percent to 7.1 percent in the third, and 4.8 percent to 7.4 percent in the last quarter of 1979.

## *BUSINESS FORECASTS 1979*

The Federal Reserve Bank of Richmond is pleased to announce the publication of *Business Forecasts 1979*, a compilation of representative business forecasts for the coming year. Copies may be obtained free of charge by writing to Bank and Public Relations, Federal Reserve Bank of Richmond, P. O. Box 27622, Richmond, Virginia 23261.

# A SUMMARY OF THE INTERNATIONAL BANKING ACT OF 1978

*John P. Segala*

The International Banking Act of 1978 is a landmark piece of legislation which, for the first time, establishes a framework for Federal regulation of foreign banking activities in the U. S. [1] Discussion of such legislation dates back to at least 1966 when a study by the Joint Economic Committee showed that because they were not subject to Federal law, foreign banks experienced certain advantages and disadvantages vis-a-vis their domestic counterparts. [3] For example, foreign-owned banks had the unique opportunity to branch interstate, but were hampered in competing for "retail" deposits because they could not obtain FDIC insurance. Although a number of bills addressing these issues were introduced before Congress in the years following the JEC study, none was enacted until 1978.

During the 1970's, pressure for foreign banking legislation mounted as the number and size of foreign banking operations in the U. S. grew rapidly. [2] In 1973 there were about 60 foreign banks operating banking offices in the United States with combined assets of about \$37 billion. By April 1978, there were 122 such offices with combined assets of approximately \$90 billion. Moreover, the involvement of these institutions in U. S. credit markets had risen to the point where, by April 1978, they held over \$26 billion in commercial and industrial loans. [5] This is equal to about 20 percent of business loans of the 300 large weekly reporting banks. Thus, foreign banks operating in the U. S. could no longer be viewed strictly as specialized institutions primarily engaged in financing foreign trade. Rather, they are significant participants in a wide range of markets for banking services in this country.

In discussions of the major thrust of foreign bank regulation, two divergent views emerged. One view argued for strong Federal regulation to be based upon the principle of "nondiscrimination" or national treatment. This policy sought to place foreign banks on an equal competitive footing with domestic banks, making both groups subject to the same rules and regulations. A different position argued for a policy of "reciprocity" which would allow a foreign bank

in the U. S. to engage in as wide a range of activities and geographical areas as permitted by its home country to U. S. banks operating there. Since U. S. banks operating in many foreign countries face fewer regulatory constraints than in the U. S., it was suggested that only minor changes in existing legislation were warranted. While the question of international reciprocity in the regulation of foreign banks is addressed in the new legislation, the major emphasis of the Act is on national treatment of foreign banks. The reasons why this policy was favored should become clear below.

**Organizational Forms** Foreign banks in the United States operate under four major forms of organization: agencies, branches, investment companies, and commercial bank subsidiaries.

*Agencies* are primarily engaged in financing trade and investment between the United States and their home country. The major sources of funds for agencies are balances placed with them by parent or sister institutions and borrowings in the interbank and Federal funds markets. While agencies are prohibited from accepting conventional deposits, they can maintain "credit balances," which represent, among other things, undisbursed amounts of loans made to their customers and receipts from international trade transactions. Thus, credit balances are sometimes analogous to the unused portion of a loan held by a customer on deposit with his commercial bank. But there are limits on the types of payments that can be made from such accounts. For example, payrolls and utility bills typically cannot be met from credit balances.

The *branch* form of organization allows foreign banks a broad scope of banking activities, including provision of a range of services approaching "full service" commercial banking. Unlike agencies, branches are able to solicit demand and time deposits. Traditionally, branches have focused their lending operations on the U. S. subsidiaries of home based corporate customers, although they have become increasingly involved in the U. S. corporate banking

market. Although U. S. and foreign corporate deposits and interbank borrowings still represent the primary sources of funds for branches, the importance of retail deposits has been growing.

*Investment companies* engage in loan and investment activities and have many of the same banking powers as agencies. Like agencies, they cannot accept deposits but can maintain credit balances. One advantage of investment companies is that they are the only organizational form allowed to deal in securities.

Foreign banks may also establish commercial bank *subsidiaries* in the U. S. These subsidiaries are identical to banks owned by U. S. residents and are subject to identical regulatory restrictions. Through this form, foreign banking corporations can provide a full range of banking services in the United States. Prior to the 1978 legislation, subsidiaries were the only organizational form of foreign bank that fell under Federal regulatory authority, although in practice and for a variety of reasons Federal chartering was rarely favored. One reason was that Federal law required that all directors of a National bank be U. S. citizens, while some states allowed up to half of the directors of a state bank to be non-U. S. citizens.

It should be noted that foreign banks may simultaneously operate a variety of organizational forms. Though state laws prohibit foreign banks from operating both an agency and a branch in a single state, they may operate either of these forms with any or all of the other entities. For example, a foreign bank may simultaneously operate agencies, representative offices, investment companies, and state-chartered bank subsidiaries. Its choice in this connection is dependent upon the kind of banking business it wishes to conduct and the laws of the individual states in which it seeks to operate.

**The Multistate Banking Issue** As of April 1978, there were 63 foreign banks operating facilities in more than one state with 31 of these operating in three or more states. [4] This ability of foreign banks to operate on a multistate basis resulted from a number of factors. [6] First, Federal law did not prohibit multistate branching by foreign banks. Since foreign banks were not eligible for Federal Reserve membership, imposition of McFadden Act restrictions on multistate branching was not possible. Moreover, because branches and agencies of foreign banks were not defined as "bank subsidiaries" under the Bank Holding Company Act, they were not subject to the multistate banking prohibi-

tions of that legislation. Finally, certain states enacted specific legislation permitting foreign bank entry regardless of whether the bank had facilities in other states. Thus, given the legal opportunity, foreign banks expanded their multistate operations in not only international banking and finance, but also in domestic commercial and industrial loans, money market operations, and in some cases, retail banking.

The effect on the competitive equality between foreign and domestic banks due to the ability of the former to conduct multistate operations was the most controversial topic addressed in the International Banking Act. To what degree, if any, did multistate branching give foreign banks a competitive advantage over their domestic counterparts? One view, supported by the Conference of State Bank Supervisors and the Institute of Foreign Banks, held that any advantage foreign banks appear to have is largely illusory because domestic banks have already established their own multistate presence through the operation of loan production offices, Edge Act corporations and nonbanking affiliates in other states. Also, since foreign banks are primarily engaged in international banking operations, their major competitors are not domestic banks but rather Edge Act corporations which, like foreign banks, are permitted to operate in more than one state. Finally, it was argued that restricting foreign banks to one state would give California and New York, which contain the nation's important centers for financing foreign trade, a virtual monopoly of these activities to the detriment of other states wishing to increase their role in international banking. Therefore, the argument ran, Federal restrictions on foreign bank branching was both unnecessary and undesirable.

The Federal Reserve and the Department of the Treasury believed otherwise. While admitting a multistate presence of domestic banks, they argued that the taking of deposits was the essence of banking, and it was in that activity that domestic banks were at a disadvantage. The multistate privilege, it was argued, gave to foreign banks a potentially broader and more diversified base from which to solicit deposits than was available to domestic institutions. Moreover, foreign banks operating on a multistate basis could provide a full line of services to large corporate customers with operations in various states and various foreign nations. The opportunity for a corporation to transact its entire banking business both at home and abroad with one bank was seen as an important reason that foreign banks were attracting such customers. [5]

To this argument was added the issue of the effect of multistate foreign bank operations on the structure of the U. S. domestic banking system. In his testimony before Congress, Chairman Miller of the Federal Reserve System warned of the dangers of allowing a third tier of privileged foreign chartered banks to develop over state and Federally chartered banks. [4] By permitting the world's largest foreign banks to establish full service facilities throughout the U. S. and at the same time continuing to prohibit multistate operation of domestic banks, a situation could arise where only a handful of the largest domestic banks would be competitive with these foreign institutions.

*The 1978 Settlement* The International Banking Act of 1978 attempts to settle the multistate banking issue by establishing rules that promote competitive equality between domestic and foreign banks while preserving the ability of states to attract foreign capital and develop international banking centers. Specifically, the Act allows foreign banks to establish branches or agencies in any state where permitted by state law, as was previously the case. However, the foreign institution is required to designate a particular state as its "home state" and its deposits from outside that state are limited to those foreign-source and international banking and finance related deposits permissible for Edge Act corporations. Thus, branches outside the home state are to accept only the type of credit balances allowable to agencies. Foreign banks are also prohibited from acquiring subsidiary banks outside the home state.

Finally, a "grandfather" clause in the Act exempts from these limitations all foreign bank operations existing on or before July 27, 1978. This feature of the Act has been criticized on grounds that it maintains domestic banks at a competitive disadvantage relative to grandfathered institutions and likewise places foreign banks entering the United States for the first time at a similar disadvantage. Failure to include such a clause, however, risked retaliation against U. S. banks operating abroad by foreign governments. Another justification for the grandfather clause was fairness. It was argued that businesses established under a particular set of rules should be allowed to continue under those rules.

The Act, it might be noted, contains a brief section that has the potential for altering the structure of U. S. banking. This section requires the President, in consultation with the bank regulatory agencies, to submit a report to Congress containing recommendations with respect to the applicability of the McFad-

den Act to the present financial, banking, and economic environment. The McFadden Act, passed in 1927, prohibits domestic banks from interstate branching. Modification or repeal of this legislation could lead to the establishment of multistate branch networks by domestic banks.

To summarize, by focusing on the key advantage to foreign banks, namely the ability to accept deposits on a multistate basis, the International Banking Act significantly improves the competitive equality between foreign and domestic financial institutions with respect to the taking of deposits. While foreign banks will still be able, with proper state approval, to make both domestic and international commercial loans throughout the country, this does not appear to give them a significant advantage vis-a-vis their domestic counterparts since U. S. banks also have ways of competing for domestic loan business. Thus, the 1978 legislation leaves intact the right of states to determine the extent of foreign bank activity within their own borders while at the same time ensuring that this does not give foreign banks a competitive edge.

**National Licensing and Chartering** As noted, until enactment of the International Banking Act all foreign bank branches and agencies operating in the U. S. did so under state authority. However, passage of the Act has given these institutions for the first time, the option of obtaining either a state or Federal license. Specifically, the Act allows foreign-owned banks to establish Federal branches or agencies in any state where it does not already have a state licensed branch or agency, provided that state law does not prohibit such institutions. In conjunction with this provision, foreign banks electing Federal branch or agency licenses gain access to Federal Reserve System services such as check collection and wire transfers.

Although foreign-owned bank subsidiaries have historically been allowed the dual charter option, only a handful have made this choice. The reason was that Federal law required all directors of National banks to be U. S. citizens. Therefore, to encourage Federal chartering of subsidiaries, the International Banking Act permits a minority of the directors of a National bank to be non-U. S. citizens, subject to approval by the Comptroller of the Currency.

To ensure that Federal branches and agencies of foreign banks do not have a competitive advantage over their state counterparts, several special provisions were included in the Act. These are: (1)



Federally licensed agencies of foreign banks, like state licensed agencies, cannot accept deposits but can maintain credit balances arising from their lending activities; (2) a foreign bank cannot maintain both Federally licensed branches and agencies in the same state, since states permit only one form of organization; and (3) Federal branches and agencies within states are made subject to the branching restrictions of the McFadden Act.

**Regulatory and Supervisory Authority** An important provision of the new legislation establishes a comprehensive framework for the regulation and supervision of foreign banking in the U. S. In the past, almost all of this authority has rested with the states, but passage of the Act has shifted major responsibility to the Federal level. Thus, the Federal Reserve Board, in consultation with the states, is given the power to set reserve requirements for all Federal and state licensed foreign bank branches and agencies whose parent organizations have over \$1 billion in total worldwide assets. Almost all foreign banking organizations with U. S. offices meet this criterion. The power to set reserve requirements was deemed necessary for Federal Reserve control over inflows and outflows of funds, as well as over domestic deposits.

Regarding supervision, the Act provides authority for the Comptroller of the Currency, the FDIC, the Federal Reserve Board, and the states, to examine the foreign banking organizations within their respective regulatory jurisdictions. Specifically, Federally licensed branches and agencies will be examined by the Comptroller's office; state licensed branches insured by the FDIC will be examined by the FDIC and the states; and, all state licensed agencies and branches not insured by the FDIC will be examined by the states. In order to ensure full compliance with the Act, the Federal Reserve Board is provided with "residual examining authority" over all the banking operations of foreign banks. This authority permits the Federal Reserve to make independent examinations of any and all foreign bank operations in the U. S. It was granted to the Fed as a tool to be used in consolidating the examination of what in many cases are complex multistate operations. For example, a foreign bank may simultaneously operate a state licensed agency in one state and a Federal branch in another, each being supervised by a different regulator. Providing the Fed with this special examining authority allows a more comprehensive review of these operations than would otherwise be possible.

**Investment and Nonbanking Activities** The Glass-Steagall Act of 1933 made it illegal for a company to engage in both commercial and investment banking activities in the U. S. This prohibition was subsequently reinforced by the Bank Holding Company Act of 1956 and by rulings of the Board of Governors. These prohibitions, however, were not necessarily applicable to foreign banking organizations. By establishing a branch or an agency and simultaneously acquiring a controlling interest in a U. S. broker/dealer, foreign banks were able to engage in both commercial and investment banking. A similar situation existed regarding the separation of banking from nonbanking activities. While domestic banks are unable to acquire more than 5 percent of the voting shares of any company whose business is not closely related to banking, foreign banks were, in practice, allowed to make such acquisitions.

One argument used to justify the exclusion of foreign banks from the prohibitions of the Glass-Steagall Act and the Bank Holding Company Act was one of reciprocity. That is, if U. S. banks operating in a certain foreign nation are permitted to engage in investment and nonbanking activities there, then banks from that nation should be allowed to do the same in the U. S. The counter argument is that each country has the right to determine the banking structure within its borders. Moreover, discrimination within a given market is created when different sets of rules apply to banks from different nations.

The approach of the 1978 legislation to addressing the issue of nonbanking activities of foreign banks is similar to the one used to settle the multistate branching issue. In both instances the objective is to promote competitive equality between foreign and domestic financial institutions without sacrificing interests of national importance. Toward this end, the International Banking Act applies the nonbanking and anti-tying provisions of the Bank Holding Company Act to all foreign financial institutions. To prevent undue burden on a foreign financial institution as a result of these restrictions, existing nonbanking activities of such institutions are grandfathered from July 26, 1978. However, the Act gives the Federal Reserve the power to terminate the grandfathered status of any company after December 31, 1985, if this status has contributed to undue concentration of resources, decreased or unfair competition, conflicts of interest, or unsound banking

practices. It is vital to note that foreign institutions' nonbanking activities conducted principally outside the U. S. are exempt from the restrictions of the Bank Holding Company Act.

**FDIC Insurance** Regarding the provision of FDIC insurance to foreign bank branches, two basic issues were involved. The first concerns competitive equality. Prior to enactment of the 1978 legislation, foreign bank branches were not eligible for FDIC insurance. This created both a competitive advantage and a competitive disadvantage. The advantage arose because foreign branches did not incur FDIC insurance premium assessments and thereby realized a cost savings not available to domestic banks. But because foreign banks were not insured they faced a disadvantage in competing for deposits, especially at the retail level. The second issue involved the lack of regulatory jurisdiction over the non-U. S. portions of foreign banks. The FDIC not only insures deposits, it also attempts to minimize bank failures via bank examinations and other means. But, since U. S. authorities have no jurisdiction over the non-U. S. operations of foreign banks, the FDIC is hampered in such efforts.

The International Banking Act addresses these issues by making FDIC insurance optional for all foreign banks that do not accept retail deposits (defined, for practical purposes, as deposits of less than \$100,000). For those branches that accept retail deposits, FDIC insurance is made mandatory. In this way, small depositors are protected and competitive inequalities are reduced. To protect the FDIC from risks associated with insuring foreign banks that cannot be monitored, the Act requires that such banks deposit surety bonds or assets at the FDIC.

**Edge Act Revisions** Although the new legislation seeks mainly a revision of regulations that apply to foreign bank operations in the U. S., it also contains an important section revising the regulation of the specialized U. S. financial institutions known as Edge Act corporations. Edge corporations engage in international banking and financial operations and are restricted to activities that are closely related to their international and foreign business. The legislation that originally provided for the chartering of Edge corporations was enacted in 1919 in order to allow domestic banks to compete more effectively with foreign financial institutions in international

banking markets. However, Edge corporations have been subject to restrictions that some consider to place them at a disadvantage relative to their foreign competitors. To redress these apparent disadvantages, the International Banking Act revises several provisions of the Edge Act. First, it removes the restriction limiting outstanding liabilities to ten times the capital and surplus of these institutions. This statutory limit on liabilities was included in the original Edge Act to prevent insolvency. However, because neither domestic nor foreign banks face such a limitation, and since Edge corporations are subject to examination and reports of condition in the same manner as member banks, the restriction was deemed discriminatory. The second major revision abolishes the mandatory 10 percent reserve requirement imposed on the liabilities of Edge institutions and replaces it with the same reserve requirements that apply to member banks.

Yet another revision in the Edge Act allows, for the first time, majority control of Edge corporations by foreign-owned banking institutions. Thus, Edge corporations may become another major organizational form for foreign bank operations in the U. S. in addition to the four mentioned earlier in the article. The original prohibition against foreign control resulted from Congressional concerns that U. S. companies lacked the sophistication to compete with the great banking and trading houses of Europe. Clearly, such fears no longer exist. Another provision of the Act requires the Federal Reserve Board to revise any other regulatory restrictions that discriminate against foreign-owned banking institutions or that disadvantage or limit Edge Act corporations in competing with foreign banking institutions.

**Summary and Conclusion** The International Banking Act of 1978 is the first comprehensive legislation that brings foreign-owned banking operations in the U. S. under Federal regulations comparable to those faced by domestic financial institutions. Its major objectives are to promote competitive equality between foreign and domestic banks, to improve Federal control over monetary policy and to provide a Federal presence in the regulation and supervision of foreign bank activities in the U. S. Under the Act, the deposits of foreign-owned bank branches operating outside of their home state are limited to the international finance related credit balances allowed agencies. Thus, while such branches may make loans, they are restricted in their ability to

compete with local domestic banks for wholesale or retail deposits. In addition, the new legislation directs the Federal Reserve to revise regulations that encumber Edge Act corporations in competing with foreign-owned banking institutions.

The Act also allows foreign banks to obtain Federal licenses for branches and agencies and a Federally chartered National bank under liberalized regulations. This ensures that in states where foreign banks are welcome they will have a State-Federal option which is similar to that of domestic banks. In providing these alternatives, the Act establishes a comprehensive regulatory and supervisory framework for the U. S. offices of foreign banks. Finally, the U. S. nonbanking activities of foreign banks operating in the U. S. are placed under the same restrictions as their domestic counterparts, and FDIC insurance is made available to foreign branches desiring such coverage.

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