

Adopting Indirect Instruments of Monetary Policy

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In the late 1970s, industrial countries began moving toward full reliance on indirect instruments, such as open market operations, rediscount facilities, and reserve requirements. Many developing and transition economies have followed suit. Indirect instruments are more effective than direct instruments in today's increasingly open economic environment.

IN IMPLEMENTING monetary policy, a central bank can act directly, using its regulatory powers, or indirectly, using its influence on money market conditions as the issuer of reserve money (currency in circulation and deposit balances with the central bank). The term "direct" refers to the one-to-one correspondence between the instrument (such as a credit ceiling) and the policy objective (such as a specific amount of domestic credit outstanding). Direct instruments operate by setting or limiting either prices (interest rates) or quantities (amounts of credit outstanding) through regulations, while indirect instruments act through the market by, in the first instance, adjusting the underlying demand for, and supply of, bank reserves.

The greater use of indirect monetary instruments can be seen as the counterpart in the

monetary area of the widespread movement toward enhancing the role of price signals in the economy. Both aim to improve market efficiency. In addition, the adoption of indirect instruments is taking place in an increasingly open economic environment characterized by widespread adoption of current account convertibility and progress in moving to full external account convertibility. In such an environment, direct instruments have become increasingly ineffective, leading to inefficiencies and disintermediation.

The most common direct instruments are interest rate controls, credit ceilings, and directed lending (lending at the behest of the authorities, rather than for commercial reasons). The three main types of indirect instrument are open market operations, reserve requirements, and central bank lending facilities.

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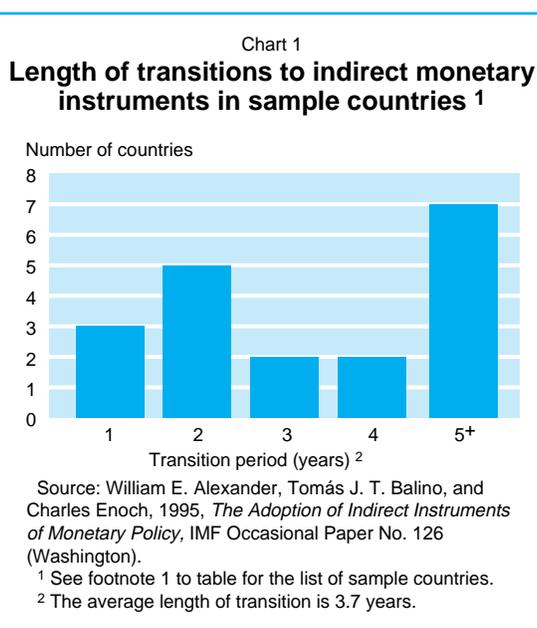
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Open market operations are, broadly defined, the purchase or sale of financial instruments by the central bank, in either the primary market (open market-type operations) or the secondary market (full-fledged open market operations). Instruments commonly used for this purpose include treasury bills, central bank bills, or prime commercial paper. Reserve requirements oblige banks to hold a specified part of their portfolios in reserves at the central bank. Central bank lending facilities are typically short term; in general, they involve the rediscounting of high-quality financial assets.

Using indirect instruments, the central bank can determine the supply of reserve money. Strictly speaking, the central bank can determine the supply of reserve money in the long run only under a fully flexible exchange rate regime. Even under a pegged or managed exchange rate regime, however, central bank transactions affect reserve money, at least in the short run. These transactions affect banks' liquidity positions, which results in adjustments to interbank, money market, and bank loan and deposit interest rates to re-equilibrate the demand for, and the supply of, reserve balances. In industrial countries with highly developed financial markets, open market operations conducted with treasury bills or central bank bills have become the instrument of choice.

The development of deep financial markets is a complex process that requires competitive financial institutions, substantial infrastructure, and a sophisticated legal and regulatory framework. Countries with underdeveloped financial markets can conduct open market-type operations through central bank interventions in primary markets for securities. A common approach is to hold regular auctions of treasury or central bank bills and vary the net amount auctioned in order to influence bank reserves. Often, this instrument is used in combination with other tools—including auctions of central bank credit, use of rediscount facilities, and changes in reserve requirements—to achieve the desired reserve impact and to smooth day-to-day liquidity fluctuations.

Rediscounts and other forms of central bank credit to the banking system are used for three purposes: to relieve liquidity shortages (lender of last resort); to control monetary and credit conditions; and to allocate credit selec-



tively. In operating a discount facility, central banks limit access in various ways. Some central banks rely on the market to limit access, in which case the discount rate needs to be high enough so that, as a first resort, banks seek funds from other sources, such as deposits and the interbank market. Others, such as the US Federal Reserve and the

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Bundesbank, maintain the discount rate somewhat below market levels and thus have to limit access to the facility administratively.

Some central banks use changes in the discount rate primarily as a way of signaling a change in monetary policy. Other central banks use the discount window as their main instrument to influence money market conditions.

Reserve requirements directly link central bank and commercial bank liabilities, by forcing banks to hold a prescribed fraction of the public's deposits in the form of currency or deposits with the central bank. They can be used as a means of sterilizing excess liquidity. However, insofar as unremunerated reserve requirements are equivalent to a tax, they can lead to financial disintermediation.

Additionally, reserve requirements lack flexibility. Frequent large changes in these requirements would be disruptive and costly for banks.

Direct vs. indirect instruments.

Direct methods of monetary control are appealing for several reasons. They are perceived to be reliable, at least initially, in controlling credit aggregates or both the distribution and the cost of credit. They are relatively easy to implement and explain, and their direct fiscal costs are relatively low. They are attractive to governments that want to channel credit to meet specific objectives. In countries with very rudimentary and noncompetitive financial systems, direct controls may be the only option until the institutional framework for indirect instruments has been developed.

Against these advantages, however, must be set the costs of inefficient resource allocation and ineffectiveness arising from the evasion and inequity that direct instruments entail. To the extent that credit ceilings are based on amounts extended by particular institutions, they tend to ossify the distribution of credit and limit competition, including the entry of new banks. Moreover, there is a tendency for controls to multiply, as the authorities struggle to thwart attempts to circumvent the initial ones. This can result in a complex, multi-tiered structure of interest rates and credit controls.

Insofar as they are effective, direct controls may lead to an overhang of liquidity, financial repression, and disintermediation. To the extent that they lead to disintermediation, the share of financial holdings over which authorities can exert monetary control decreases, as funds flow into unregulated or informal financial markets. Direct instruments often lose effectiveness because economic agents find means to circumvent them.

By contrast, indirect instruments encourage intermediation through the formal financial sector. They also permit the authorities to have greater flexibility in policy implementation. Small, frequent changes in instrument settings become feasible, enabling the authorities to respond rapidly to shocks and to correct policy errors quickly.

Making the transition

To understand the process of making the transition to indirect instruments, a study was conducted to analyze the experience of selected countries. The sample comprised industrial countries (countries in Western

Europe, and Canada, Japan, New Zealand, and the United States) and 19 non-industrial countries (listed in footnote 1 to the table), with the latter chosen to be broadly representative of experiences during this transition.

The experiences of the industrial countries were the more homogeneous of the two groups. The transition in these countries occurred during the 1970s and 1980s as part of a broader process of financial liberalization. For the most part, it proceeded gradually and without major problems or reversals, largely owing to important facilitating conditions—in particular, the absence of major macroeconomic disequilibria. Two industrial countries, France and the United Kingdom, did, however, suffer setbacks in their first attempts to rely fully on indirect instruments. The experiences of non-industrial countries were both more diverse and revealing. Considerable time was often needed to complete a successful transition (see Chart 1), and there were often difficulties and temporary reversals of the process.

The diversity of their experiences notwithstanding, most of the non-industrial countries had certain initial conditions in common. Usually, the introduction of indirect instruments was part of a broader set of reforms, which included not only liberalization of the financial sector but also macroeconomic stabilization and liberalization of the economy in general. The need for measures to open up the financial sector to new entrants and to allow banks more operational freedom was common to all countries. Other common features were weak and segmented money and interbank markets, lack of effective bank supervision, and low central bank autonomy. (See table.) In only about two-thirds of the countries were the authorities able to enforce direct controls effectively and attain their monetary objectives. Large macroeconomic imbalances were present in about half the sample countries at the start of reform. Most of the banking systems had excess reserves, the expansionary effects of which were suppressed by direct controls. This posed a special challenge, since the absorption of excess reserves was an essential precondition for effective monetary control using indirect instruments.

It is not surprising, therefore, that implementation experiences differed significantly from country to country. This variation characterized the pace of transition. (See Chart 1.)

In 6 of the 19 countries in the sample, the reform process also included temporary reversals. In four of these, a financial crisis prompted the temporary reintroduction of controls on interest rates to alleviate the burden of high real interest rates on borrowers and banks. In the other two, reversals were

Initial conditions helped the switch to indirect instruments

Conditions	Percent of total sample (19 countries) ¹
Initial institutional conditions	
IMF-supported program	89
Public ownership of banking sector greater than 50 percent	63
Effective supervision	32
Independent central bank	11
Attainment of monetary policy targets	63
Existence of capital controls	95
Initial macroeconomic conditions	
Annual rate of inflation greater than 20 percent	47
Negative real interest rates	53
Ratio of fiscal deficit to GDP greater than 5 percent	58
Excess liquidity	79

Sources: IMF staff estimates; and IMF, *International Financial Statistics*, various issues.

¹ The sample comprised Argentina, Burundi, Chile, Egypt, The Gambia, Ghana, Hungary, Indonesia, Israel, Jamaica, Kenya, Malaysia, Mexico, the Philippines, Poland, Sri Lanka, Thailand, Tunisia, and Venezuela.

a direct response to excessively high fiscal imbalances.

A number of features were common to the implementation experience of those countries that avoided such reversals. These included the need to imbed the transition to indirect instruments in a broader financial reform package, which included improving bank supervision, revising the legal framework, and reorganizing the banking system. Efforts were undertaken to contain excessive fiscal imbalances, and, typically, central bank financing was curbed. In all cases, central banks had to improve control over credit expansion by, in many cases, absorbing excess reserves. Most or all interest rates were liberalized early in the transition, although other elements of the sequencing varied from country to country. There was often a period when the use of direct and indirect instruments coincided. For instance, only 25 percent of sample countries abolished bank-by-bank credit ceilings at the start of the liberalization process. This concomitant use of direct and indirect instruments is sometimes referred to as a “belt and braces” strategy.

The study also attempted to gauge the extent to which the transition to indirect instruments provided lasting benefits—primarily more efficient financial intermediation and more effective monetary control. Strictly

speaking, these “before and after” comparisons do not control for other developments that might have had an impact on the outcome. As a result, they cannot yield unambiguous conclusions about the effects of implementing indirect instruments. Since these comparisons focus narrowly on the financial sector, however, there can be a presumption that the results primarily reflect the effects of implementing indirect instruments of monetary control.

The spread between deposit and lending rates was used as a proxy for the efficiency of financial intermediation. As efficiency improves, and as competition within the financial system increases, interest rate spreads can be expected to narrow. In most cases, interest rate spreads narrowed significantly, although, in some countries, they temporarily widened during the transition period. (See Chart 2.) Other proxies for financial efficiency also suggest that financial intermediation becomes more efficient as a result of transition.

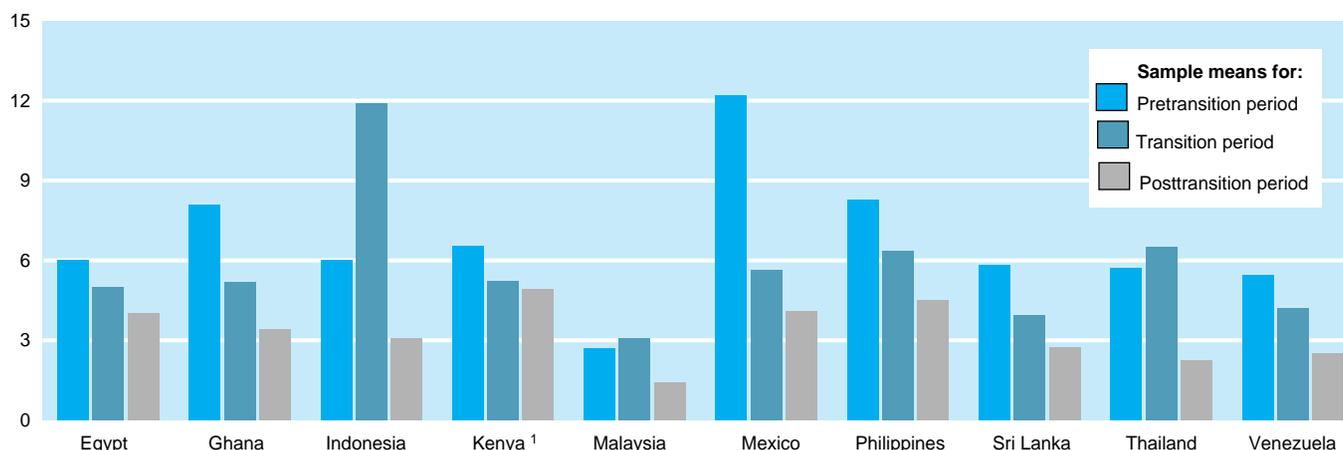
Similarly, there is evidence that monetary control improved as a result of the transition to indirect instruments, although difficulties were encountered during the transition. In all the sample countries except one, the volatility of the money multiplier increased substantially between the pretransition period and the transition period itself, underlining the potential for temporary loss of monetary control. In most countries, however, this volatility fell substantially between the transition period and the posttransition period, implying an enhancement of the potential for monetary control.

Conclusions

The development of indirect monetary instruments is a complex process that usually requires considerable time to complete. While some countries have succeeded in making a rapid and relatively smooth transition, the experiences of others suggest that substantial difficulties and costs can be encountered and that the transition can be protracted unless a comprehensive approach to the adoption of indirect instruments is undertaken. Typically, in countries where adequate concomitant measures are not taken, the effectiveness of monetary control has been reduced, and some countries have temporarily halted (or reversed) their reform efforts. The study found that to minimize these difficulties and facilitate a smooth transition:

(i) Monetary policy needs to be insulated from the pressures created by the government's need to finance its fiscal deficit. The authorities need to curtail monetary financing of the fiscal deficit, and the government should pay market rates of interest on its debt

Chart 2
Selected sample countries: interest rate spreads
(percent)



Sources: IMF staff estimates; and IMF, *International Financial Statistics*, various issues.

¹ Limited data are available for the posttransition period.

and refrain from pressuring the central bank to keep interest rates low. Enhancing central bank independence can help a country to achieve these goals; recent changes in central bank legislation in many countries have gone in that direction. A comprehensive program to develop public debt management and government securities markets is required, in order to allow the government to meet its financing needs through the market.

(ii) Usually, the money and interbank markets need to be strengthened and better integrated. Since the central bank's policies are effected through changes in market liquidity, indirect instruments are more effective if the money markets respond rapidly to the central bank's actions. Thus, the central bank has a strong incentive to help develop the market infrastructure—including the payment and settlements systems, and the legal and regulatory framework of the markets—and to introduce suitable market instruments and techniques.

Causation runs both ways: the development of markets makes indirect instruments more effective, and introducing these instruments helps markets to develop. If few or no safe market instruments exist, the early introduction of instruments bearing market interest rates can have a catalytic effect on the development of the money and financial markets that are needed for the authorities to rely fully on indirect instruments.

(iii) The banking system often needs to be restructured to create healthy banks and foster competition. Generally, financial restructuring has to deal with nonperforming loans, problem banks, and strengthening the managerial

capacity of weaker banks, which may be poorly equipped to adapt to the newly competitive environment. The privatization of state-owned banks can contribute to this restructuring.

(iv) The supervisory and regulatory framework needs to be reinforced. All too often, countries' experience has been that, in the absence of such measures, financial liberalization can be interrupted by a financial crisis. Moreover, the restructuring of the banking system discussed previously will have little impact if weak prudential supervision allows the system's solvency to be compromised again. Thus, countries need to put in place safeguards—in the form of minimum capital standards, criteria for provisioning (that is, setting aside reserves) for doubtful loans, limits on loan concentration, collateral requirements, and enforcement mechanisms—that encourage prudent behavior. Financial reporting and disclosure standards are also needed to improve transparency, so that the market and the authorities can play their proper roles in ensuring financial discipline.

(v) The technical capacity of the central bank needs to be strengthened. Reliance on indirect instruments requires that the central bank be able to project the demand for, and the supply of, currency and bank reserves and estimate their effect on broader credit and monetary aggregates. This requires timely and accurate data—including early warning indicators—on financial sector developments as well as the central bank's balance sheet and must be based on a quantification of key monetary relationships.

(vi) Experience suggests that implementation of indirect instruments is both easier

and less likely to suffer reversals if done gradually, in line with the speed with which concomitant measures can be introduced and financial markets developed. (Sometimes, though, a rapid introduction of indirect instruments is necessary—for instance, when direct instruments have become ineffective or too costly to operate.) In fact, if direct instruments are still effective—especially in circumstances where the necessary institutional reforms and concomitant policy measures are both lacking and unlikely to be implemented soon—the introduction of indirect instruments may be premature.

(vii) Experience suggests that countries should introduce indirect instruments at an early stage. A key question is when to abolish direct controls. Again, the precise answer depends on the specifics of the case. A gradual phaseout—following a “belt and braces” approach for a period, using both direct and indirect instruments—is often appropriate.

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