

Working Paper

INTERNATIONAL MONETARY FUND

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WP/94/14

INTERNATIONAL MONETARY FUND

External Relations Department

Working Paper Summaries

July-December 1993

Compiled by the Editorial Division

Authorized for Distribution by Shailendra Anjaria

January 1994

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"The Economic Reform Process in Russia"
by John Odling-Smee and Henri Lorie

The economic problems confronted by Russia at the end of 1991 were in some respects similar to those faced by other countries before major periods of adjustment--the large Latin American economies in the early 1980s, the problems of economic reconstruction in Europe and Japan following the Second World War, and, especially, the countries of Eastern Europe as they move toward a market economy a year or two ahead of Russia. However, various factors point to a longer and more arduous transition period in Russia than in Eastern Europe. The broad policy approach in Russia should nonetheless be similar; it is as important to make rapid progress with macroeconomic stabilization measures and structural reforms in Russia as in Eastern Europe in order to create the conditions in which market mechanisms will eventually grow.

The essential systemic change in the transition to a market economy is trade and price liberalization. Demonopolization, through breaking up large enterprises, removing barriers to entry for new enterprises, and allowing free competition with imports, is an important complement to liberalization. But slow progress in this area does not negate trade and price liberalization.

Russia's experience in 1992 shows that a necessary condition for effective macroeconomic stabilization is the imposition of hard budget constraints on enterprises. Accordingly, financial assistance from the Government and the central bank to enterprises must be strictly controlled to ensure both compatibility with inflation objectives and the creation of incentives for reform. Such assistance should be temporary, with targets for phasing out clearly established, and conditional on satisfactory financial privatization and restructuring plans for enterprises that qualify.

Russia's need for external financial assistance in the short term is comparable to that faced by Europe and Japan at the end of the Second World War. It reflects the need to smooth the consumption stream of the population, restore the infrastructure, and finance enterprise reform and restructuring. Equally important, Russia must be willing and able to pursue economic policies that ensure that the external assistance has the desired effects. These include measures to achieve macroeconomic stability and rapid progress on a wide range of systemic reforms.

JEL Classification Number
F34

Summary of
WP/93/56

"Sovereign Debt: A Survey of Some Theoretical
and Policy Issues" by Vivek B. Arora

The debt crisis of the 1980s raised a number of issues that invited new research. This paper surveys the recent literature on some of these issues in order to provide a synthesis of the main results.

The distinction between the ability-to-pay problem and the willingness-to-pay problem is seen to be important for understanding a debt crisis. In the case of a willingness-to-pay problem, in which a country that has the resources to repay its debt may find it optimal not to do so, there is a strategic interaction between the borrower and lenders, and the level of debt repayment is endogenously determined. The paper discusses several conceptual frameworks used for analyzing a willingness-to-pay problem, in which the potential penalties for debt repudiation are seen to play an important role in determining the repayment outcome. In particular, if the borrowing country has access to asset markets in a third country, potential intertemporal penalties, such as the denial of future credit by private lenders, may not be sufficient to deter debt repudiation, while potential intratemporal penalties, such as trade sanctions, may prove more effective. If the costs of debt servicing and debt repudiation are distributed unevenly across the population, political considerations may give rise to a recurrent cycle of debt and default.

If a borrower has a debt level that exceeds in an intertemporal sense the resources available to it to repay that debt, it has an ability-to-pay problem. However, if a country's debt to GDP ratio is used to assess its ability to repay the debt, some additional information is needed, including the share of tradable goods in GDP and the level of the real exchange rate. Moreover, if the government is the major borrower, as in the recent debt crisis, the government's intertemporal budget constraint, rather than that of the country as a whole, is appropriate for assessing the ability to repay. Domestic economic policies, in particular fiscal consolidation, can thus play an important role in averting a debt crisis. The existence of an ability-to-pay problem suggests a need for debt reduction. However, another argument in favor of debt reduction--that the existence of a "debt overhang" lowers a country's investment, growth, and repayment capacity--encounters conceptual as well as empirical difficulties.

Debt reduction can be effected through debt relief or debt restructuring. The incentive problems typically associated with plans for debt relief can be overcome either by coordination by a special institution or by a market solution, such as the provision of tax credits to private creditors in exchange for debt relief. Perhaps the most common method of debt restructuring is for the debtor country to repurchase its debt at a discount in the international market. These "buy-backs," which might not on their own be an efficient means of debt reduction, are seen to play an important role in a broader debt-reduction strategy.

JEL Classification Numbers
E60, H30, P40

Summary of
WP/93/57

"Political Feasibility and Investment in Economic Transformation" by Joshua Aizenman and Peter Isard

This paper analyzes the challenge of transforming a state-owned and centrally controlled economy into a private, decentralized market economy under initial conditions that tend to place the policies necessary to induce an adequate rate of private investment in conflict with those required to preserve political support for the transformation effort. The initial conditions generally include a state enterprise sector that requires large subsidies to cover production costs, a primitive stock of public "infrastructure" that makes it difficult for private enterprises to operate at a profit, and often an environment of macroeconomic instability (for example, large fiscal deficits) that further discourages private enterprise.

The analysis focuses on the feasibility of simultaneously sustaining macroeconomic stability, political support, and adequate private investment. Macroeconomic stability requires that expenditures on net subsidies to the state production sector, as well as public infrastructure investment, be financed by tax revenues from the private sector and external assistance. Political feasibility is assumed to depend on the income gains and losses experienced by the three population groups identified in the model--state sector workers, private sector workers, and private investors. This formalization captures the notion that the need to maintain domestic political support may constrain short-run reductions in the levels of state sector wages, transfer payments, and subsidies. The labor market is modeled in a manner that emphasizes the importance to the transformation process of the productivity gains unleashed by a competitive environment in which heterogeneous workers are induced to make occupational choices consistent with their comparative advantages.

The analysis supports the following policy perspectives. First, attaining adequate private investment requires sufficient public infrastructure as well as the maintenance of macroeconomic stability. Second, political forces may limit the financial resources that governments can raise domestically to finance infrastructure investment without relinquishing macroeconomic stability. Consequently, the achievement of adequate levels of public infrastructure investment and private investment--and hence the feasibility of the transformation--may depend heavily on external assistance in the short run. However, the need for external assistance will diminish over time with the buildup of public infrastructure, the growth of the private sector, and the increasing employment flexibility of new entrants to the workforce.

JEL Classification Numbers
H3, H39

Summary of
WP/93/58

"The Fiscal Abuse of Central Banks" by Maxwell J. Fry

This paper examines the fiscal activities that governments in a sample of 26 developing countries have obliged their central banks to undertake. On the revenue side, the banks' fiscal activities include collecting seigniorage by issuing currency and imposing reserve requirements, demonetizing currency notes of particular denominations, forcing unfavorable conversions of old for new currency after a currency reform, setting interest rate ceilings on financial assets that compete with government bonds, and requiring import pre-deposits. They may also be charged with administering multiple exchange rate systems--in which exporters are obliged to sell their foreign exchange earnings to the central bank at prices lower than those some importers pay for foreign exchange from the central bank--and with collecting miscellaneous fees.

On the expenditure side, central banks allocate subsidized credit to agriculture and export sectors and to development finance institutions through selective credit policies, provide explicit or implicit deposit insurance and bail out insolvent financial (or even nonfinancial) institutions when necessary, and provide exchange rate subsidies or guarantees, particularly for debt service and essential imports. Interest rate ceilings imposed and enforced by central banks constitute both taxes and fiscal expenditures in the form of subsidies. The taxes are imposed on depositors/lenders, who subsidize "preferred" borrowers.

By making central banks responsible for a range of fiscal expenditures, developing countries undermine not only the banks' independence but also monetary policy objectives. Fiscal activities involve expenditures that reduce central bank profits and may even produce losses. If central bank losses are not met from government budget appropriations, they must eventually lead to an expansion in central bank money and the abandonment of any monetary policy goal of price stability. As this paper shows, central banks do not possess any miraculous widow's cruse. Governments can tap central bank profits either directly through transfers or indirectly by obliging the central banks to engage in the fiscal activities described here. They cannot, however, have their cake and eat it.

JEL Classification Numbers
F43, H3, H5

Summary of
WP/93/59

Openness, Human Development, and Fiscal Policies: Effects
on Economic Growth and Speed of Adjustment" by Delano Villanueva

Although, during the last three and a half decades, growth theorists have used the standard neoclassical growth model as a workhorse, they have been perplexed by certain of its equilibrium properties. For example, the model indicates that an increase in the saving rate, while raising the level of per capita real income, has no effect on the growth rate of output. The paper suggests, however, that this surprising result can easily be explained. Although a higher saving rate raises the growth rate of output by increasing the investment rate, the increase in economic growth occurs only during the transition to the next steady-state equilibrium. Sooner or later, the labor input creates a bottleneck, limiting further output growth, and the growth rate of output eventually falls back to the constant natural rate of growth.

The time it takes the economy to reach this balanced growth path is also of considerable interest, particularly to policymakers. In the context of the standard neoclassical model, if the objective of economic policy is to raise the equilibrium level of per capita real income (for example, by raising the government saving rate), a fast adjustment is desirable.

The model of this paper modifies the standard neoclassical growth model by allowing technical change to be determined endogenously. This modification changes the standard model's equilibrium behavior. For example, an increase in the saving rate that raises the rate of technical progress has a permanent positive effect on the steady-growth rate of output.

This study is both theoretical and empirical. The model developed in the paper postulates that learning through experience (measured in either cumulative past investment or output) plays a critical role in raising labor productivity over time, with three major consequences. First, the steady-state growth rate (of output) becomes endogenous and is influenced by government policies. Second, the speed of adjustment to steady-state growth is faster, and enhanced learning further reduces adjustment time. Third, both steady-state growth and the optimal net rate of return to capital are higher than the sum of exogenous rates of technical change and population growth. Simulation results confirm the model's faster speed of adjustment, while regression analysis explains a large part of divergent growth patterns across countries in terms of basic determinants that include openness, human development, and fiscal policies.

JEL Classification Numbers
H21, E31, E60

Summary of
WP/93/60

**"Collection Lags and the Optimal Inflation Tax:
A Reconsideration" by Alex Mourmouras and José A. Tijerina**

It has long been argued that the case for inflationary finance is greatly weakened when allowance is made for lags in the payment of taxes that erode fiscal revenues (Tanzi (1978)). Recently, however, Dixit (1991) has rejected this argument on the basis of a general equilibrium optimal tax analysis. Specifically, he employed a version of Végh's (1989) "shopping time" monetary model with costly income taxation to show that introducing collection lags and allowing the government to recalculate its optimal tax mix may result in unchanged or even higher rates of inflation.

This paper reconsiders the effects of collection lags on the optimal tax menu in a version of Samuelson's (1958) consumption loans model. A Ramsey formula is derived that demonstrates that optimal inflation is (a) proportional to the marginal cost of income tax collections; and (b) inversely proportional to the marginal propensity to consume and the interest elasticity of real money demand. It is also shown that, depending on the specification of the collection cost function and the size of government spending in GDP, collection lags may result in higher, unchanged, or lower rates of desired inflation. Specifically, if real collection costs are a function of real revenues realized, there is a threshold value of the size of government spending in GDP such that the optimal rate of inflation is lower (higher) when lags are present (absent). However, if real collection costs are a function of real revenues accrued, the optimal tax menu does not change in the presence of collection lags.

JEL Classification Numbers
P21, E44, D43

Summary of
WP/93/61

"Enterprise Arrears in Russia: Causes and Policy Options"
by David Bigman and Sérgio Pereira Leite

A rapid buildup of interenterprise arrears took place in Russia in the first half of 1992 and continued unabated through the second half of the year. Together with an accumulation of tax arrears and mounting enterprise debt to commercial banks, this buildup exerted severe pressure on the payments system and vastly complicated both the management of the economy and privatization efforts. This paper not only analyzes the causes of these developments and evaluates alternative policy options to deal with them but also briefly reviews the experience of East European countries that faced similar problems, drawing lessons where relevant.

Measures designed to settle the existing debts of state enterprises to other enterprises, the Treasury, and banks are distinguished from those aimed at preventing the accumulation of new payment arrears. In the absence of proper preventive measures, the complex operation of netting out and settling the outstanding arrears undertaken in Russia in the second half of 1992 was rapidly frustrated by an accumulation of new arrears due in part to the moral hazard created by the original operation. The analysis emphasizes that neither technical measures to streamline the clearing process nor credit operations to eliminate arrears can, by themselves, succeed in solving the problem unless accompanied by measures aimed at instilling financial discipline in the system and accelerating needed structural changes in state enterprises.

The paper's perspective is that measures to instill financial discipline in the payments system and prevent the accumulation of new arrears must take precedence over measures to settle existing debts. In particular, the practice of repeatedly extending credit to bail out indebted enterprises and clear up arrears should be avoided. Although some credit extension may be necessary to prevent massive unemployment due to a widespread collapse of state enterprises, new credit should be made conditional on the ability of individual enterprises to create detailed plans for restructuring their operations, as well as on their performance in carrying out these plans and meeting their payment obligations. The success of such measures will depend on well-conceived preparatory work that includes a clear and binding timetable for their implementation, a comprehensive legal framework, and the establishment of the institutions necessary to supervise the process. Otherwise, efforts to solve the problem through credit expansion will only exacerbate inflationary pressures and allow enterprises to delay indefinitely the necessary adjustments in production and employment.

JEL Classification Numbers
F20

Summary of
WP/93/62

"Saving, Investment, and the Regional
Current Account: An Analysis of Canadian,
British, and German Regions" by Alun H. Thomas

This paper examines the relationship between saving and investment on a regional level to measure the extent of capital mobility across regions. It finds that the relationship between total regional saving and investment is significantly negative in Canada and the United Kingdom; this finding contrasts with the significant positive relationship obtained from a similar analysis across countries.

The difference, attributed to subsidies given by national governments to poor regions, is demonstrated by a strong negative relationship between government saving and investment across regions in contrast to the positive relationship between private saving and investment for the United Kingdom and an insignificant relationship elsewhere. When private saving is broken up into personal saving and corporate saving, a positive relationship is found between corporate saving and private investment, indicative of corporate liquidity effects. Personal saving, on the other hand, is unrelated to investment, thereby indicating capital mobility.

A test for the presence of regional liquidity constraints is developed by ascertaining whether movements in investment are more closely associated with movements in retained earnings in peripheral regions than in central regions. The results suggest no difference in liquidity constraints between central and peripheral regions.

JEL Classification Numbers
E52, E58, F33, G15

Summary of
WP/93/64

**"The Use of Foreign Exchange Swaps
by Central Banks: A Survey" by Catharina J. Hooyman**

Central banks have long engaged in foreign exchange swaps with other central or commercial banks by exchanging, on the initial and maturity dates, principal amounts at agreed exchange rates. Their primary reasons for participating in swaps are to affect domestic liquidity, manage their foreign exchange reserves, and stimulate domestic financial markets. This paper describes how foreign exchange swaps work and the various ways in which central banks have used them to achieve their goals.

Foreign exchange swaps are priced by markets according to the covered interest parity condition, after allowing for maturity, tax treatment, transaction costs, and default, "Herstatt," and sovereign risk. If cover is not maintained, a swap may expose the participants to significant foreign exchange risk. The paper explains how a central bank must also consider the effect of its swaps on domestic liquidity. If not fully sterilized, a swap with a domestic bank will be reflected in a movement in reserve money.

Swaps have been used as a domestic monetary policy instrument in a number of industrial countries (notably Switzerland) and several developing countries (for example, Malaysia, Oman and Turkey). Central banks like to use swaps, which offer flexibility, especially when the domestic securities market is not deep (or is nonexistent) and when the direct effect on the spot exchange rate of outright foreign exchange operations is to be avoided. However, the popularity of swaps has declined as other instruments have been developed.

Central banks have used foreign exchange swaps to manage the risk and return obtained on foreign exchange reserves or to acquire reserves in specific currencies. In addition, the central banks of some countries (for example, Argentina, Chile, and Korea) have resorted to swaps to obtain foreign exchange reserves in conditions of scarcity. In other cases, foreign exchange guarantees were extended to favored sectors or activities, which is tantamount to establishing a swap facility.

JEL Classification Numbers
H20, O53, O54, O55, O57, P35, P52

Summary of
WP/93/65

"Technical Assistance on Tax Policy: A Review"
by the Staff of the Tax Policy Division

The review has a twofold objective. First, it describes the nature and scope of the advice that the Fiscal Affairs Department (FAD) has offered to countries through recent technical assistance missions. It identifies themes applicable to all countries and special elements designed to address issues unique to a specific country or a subset of countries. Second, it ascertains, to the extent possible, the impact of FAD's tax policy recommendations by assessing the extent to which the countries receiving technical assistance have subsequently implemented measures based on the recommendations.

FAD tax policy advice has tended to emphasize the need to enhance the neutrality of different taxes and, in line with international reform trends, to ease the resource demands on tax administrations. In general, FAD missions have recommended two courses of action: (1) simplifying the structures of existing taxes (such as by reducing the number of rates, broadening the bases, and eliminating preferential treatment of particular economic agents or activities); or (2) introducing new and simple taxes (such as a single-rate value-added tax to replace old and complicated ones (such as a multi-rate turnover tax).

When countries have sought FAD advice for the express purpose of identifying policy options to mobilize additional budgetary resources, technical assistance missions have been uniformly guided by the principle of designing measures that would generate adequate revenue to meet the countries' budgetary needs in as economically neutral a manner as possible. However, as circumstances warrant, they have also suggested interim measures that deviate in varying degrees from the long-term goals of tax reform.

In general, FAD tax policy advice has had a discernible impact on the course of tax reform in many countries. By type of tax, reform recommendations on the domestic consumption and international trade taxes have met the greatest success in terms of the extent to which they have subsequently been implemented. By geographical location, technical assistance advice has had the greatest influence on Western Hemisphere economies and selected economies in transition. As is to be expected, timely and concrete policy actions have materialized more frequently when the technical assistance advice was given in the context of Fund programs. But even when Fund resources were not involved, the missions' analytical work supporting their recommendations often provided significant assistance to the authorities in their policy deliberations.

JEL Classification Numbers
E21, F35, O55, O47

Summary of
WP/93/66

"Structural Adjustment, Economic Performance,
and Aid Dependency in Tanzania" by Roger Nord,
Michael Mered, Nisha Agrawal, and Zafar Ahmed

After experiencing a decade of protracted economic decline, Tanzania embarked on structural adjustment in 1986. Its program was supported by the IMF and the World Bank, and was accompanied by substantial foreign assistance. Although after seven years, the environment for higher economic growth has improved, the results are only partially encouraging. Economic growth has only slightly exceeded population growth, and officially measured domestic savings have deteriorated. Meanwhile, Tanzania's dependency on foreign assistance has increased, which has led to a deterioration of the current account of the balance of payments. This development has given rise to an increasingly heated debate about whether real adjustment is taking place in Tanzania or whether foreign aid is postponing rather than supporting adjustment.

The purpose of this paper is to shed new light on the relationship between adjustment and aid dependency on the basis of Tanzania's experience. To this end, Tanzania's data base, adjusted to correct for glaring deficiencies, is used to compare Tanzania's performance in 1981-85, before reforms were launched, with its performance after the Economic Recovery Program was launched in 1986. The adjustment of the macroeconomic data shows that, contrary to traditional interpretation, Tanzania's increased dependency on foreign assistance did not lead to a deterioration in domestic savings performance. Furthermore, most of the foreign assistance was used for investment rather than for consumption.

To provide a context, Tanzania's performance is compared with that of four other sub-Saharan African countries (Ghana, Kenya, Malawi, and Uganda) that embarked on similar reform programs during the 1980s. The principal difference between Tanzania and these four countries, however, is the efficiency with which these countries used the foreign assistance. The comparison shows that, even after introducing structural reforms, Tanzania is getting very little return on domestic investment, in part because the economy is dominated by a large and highly inefficient parastatal sector. If Tanzania is to generate the accelerated growth that it so urgently needs, one of the key goals of its policy reform must be to increase the productivity of domestic investment.

JEL Classification Numbers
H31, F42

Summary of
WP/93/67

"The Stabilizing Effect of the ERM on Exchange Rates
and Interest Rates: An Empirical Investigation"
Michael J. Artis and Mark P. Taylor

This paper investigates the volatility of exchange rates and interest rates of member countries of the exchange rate mechanism (ERM) of the European Monetary System (EMS) by comparing it with that of a control group of non-ERM currencies before and after the inception of the ERM. Because there are doubts about the true distribution of exchange rate and interest rate changes, a nonparametric method is used. It also examines how volatility changes over time.

The essential findings are very clear. During the operation of the EMS, the volatility of intra-ERM (specifically bilateral-deutsche mark) exchange rates fell, whereas the volatility of non-ERM currencies has remained the same or increased. This effect was big enough to also replicate itself for the ERM countries' overall effective exchange rates. Similar conclusions, albeit not quite so striking, were obtained for real bilateral and real effective exchange rates. The general impression that the ERM had evolved over time in the direction of greater stability is also confirmed on this data set.

The same technique is applied to study the evolution of volatility in "offshore" or "Eurocurrency" interest rates. Again, volatility appears to be somewhat reduced for the ERM countries compared with the control group. This result is inconsistent with the "volatility transfer" hypothesis according to which reduced stability in exchange rates would imply added volatility in interest rates. Moreover, the high-frequency volatility of ERM interest rates did not shift significantly during the time the United Kingdom was participating in the ERM.

Drawing on earlier work by the present authors on the long-run credibility of the ERM and taking into account the distinction between short-run volatility and long-term misalignment, the paper argues that the very recent turbulence in the EMS is not inconsistent with the short-run, stabilizing influence of the ERM that is documented here.

JEL Classification Numbers
E31, E42, E6, F3, H2, H5, H6

Summary of
WP/93/68

**"Alternative Exchange Rate Strategies and Fiscal Performance
in Sub-Saharan Africa" by Karim Nashashibi and Stefania Bazzoni**

Sub-Saharan African countries emerged from the 1970s with large and unsustainable fiscal deficits, which stemmed from the increase in government spending in the aftermath of the two oil shocks. During the 1980s, the internal imbalance was exacerbated by a protracted decline in terms of trade.

To alleviate internal and external imbalances, these countries pursued two different strategies. Those in the western and central African monetary unions (CFA franc zone) retained the "internal" adjustment path by maintaining a fixed exchange rate parity with the French franc as a nominal anchor to ensure fiscal discipline and low inflation. Most other countries, pursuing an "external" adjustment strategy, relied on the exchange rate to alleviate the effect of external shocks.

This paper investigates a sample of 28 sub-Saharan African countries for which a fiscal data base was generated for the 1980-91 period. It finds that, in those countries where the tax base is highly dependent on imports and import substitutes, exchange rate movements in response to external shocks are critical for sustaining and improving fiscal performance. The paper uses statistical analysis to correlate the ratio of tax revenue to GDP with movements in the real exchange rate and the terms of trade.

The adopted adjustment strategies explain, to a large extent, the fiscal performance of sub-Saharan African countries in the 1980s. Fiscal deficits widened in countries with fixed exchange rates but were reduced in countries with variable exchange rates. Other indicators, such as the current or the primary balance, confirmed that the countries with fixed rates were not able to arrest the deterioration in their fiscal performance, particularly during the second half of the 1980s when a real effective exchange rate appreciation coincided with a deterioration in the terms of trade.

The major difference in the fiscal performance of the two groups of countries lies on the revenue front. The countries with variable exchange rates improved their ratio of tax revenue to GDP, and countries with fixed exchange rates experienced a significant decline. Both groups succeeded in reducing their government spending in relation to GDP. However, in countries with fixed exchange rates the effort was mostly concentrated in capital expenditures; the government wage bill, which should have been targeted for reduction in real terms under the internal adjustment strategy, actually increased in relation to GDP.

The paper finds that to the extent that an overvaluation of the exchange rate undermines the tax base, the internal adjustment strategy leads to a widening of the fiscal deficit when its purpose is to restore the real exchange rate to its equilibrium level through fiscal contraction. Those countries with variable exchange rates failed to achieve price stability, but exchange rate adjustment was critical in contributing to other macroeconomic objectives, particularly fiscal balance, competitiveness, and growth. Hence, presenting internal and external adjustment strategies as policy alternatives in sub-Saharan Africa is not meaningful. Rather, these two strategies must be complementary.

JEL Classification Numbers
C71, E63, H26

Summary of
WP/93/69

"Presumptive Taxation: Revenue and Automatic
Stabilizer Aspects" by S. Nuri Erbas

This paper examines two questions that arise when presumptive taxation is considered as an alternative to standard statutory taxation. First, could net revenue (revenue net of collection costs) be increased under presumptive taxation relative to standard taxation? This question is considered in the context of a microeconomic model of income tax evasion that examines the constraints of the bargain between the taxpayer and the tax collector. The model shows that, within certain limits, it is feasible to increase revenue with presumptive tax methods. Although not intended as a detailed case study, the model also helps to explain the obstacles encountered in recent efforts to implement presumptive excise taxation in Pakistan.

Recent studies emphasize that presumptive taxation can lead to greater efficiency. In addition, it is argued that, unlike standard progressive income taxation, presumptive taxation of global income would not act as an automatic stabilizer because tax liability would be determined ex ante. This leads to the second question: Would the adoption of presumptive taxation of global income necessarily contribute to macroeconomic instability? With a rational-expectations macroeconomic model, it is shown that standard progressive income taxation acts as an automatic stabilizer only under rather restrictive assumptions. Therefore, although presumptive taxation does not have the automatic stabilizer property, in general, adopting presumptive taxation in lieu of standard taxation need not be destabilizing. The paper concludes that presumptive tax methods represent both a means to determine a minimum tax liability for hard-to-tax economic activities and an efficient form of global income taxation.

JEL Classification Numbers
F31, F41, O11

Summary of
WP/93/70

**"Is the Parallel Market Premium a Reliable Indicator
of Real Exchange Rate Misalignment in Developing Countries?"**
by Peter J. Montiel and Jonathan D. Ostry

Real exchange rate misalignment--the occurrence of a sustained departure of the actual real exchange rate from its equilibrium value--has been a recurring policy problem in many developing countries. A well-known difficulty associated with implementing policies designed to reduce real exchange rate misalignment is that of gauging the degree to which an exchange rate is out of equilibrium and, in some cases, the direction of misalignment. This is because information about the extent of misalignment requires knowledge of the level of the equilibrium real exchange rate, which depends on a host of structural and macroeconomic factors that may be difficult to measure.

Economists have frequently used information from the parallel foreign exchange market to gauge the extent of real exchange rate misalignment. The existence of a premium on foreign exchange in the free market is taken as indicative of an excess demand for foreign exchange at the official exchange rate, which in turn is interpreted as arising from an overvaluation of the domestic currency at the prevailing official exchange rate.

This paper argues that, from an analytical standpoint, the case for treating the size of the parallel market premium as an indicator of the magnitude of real exchange rate misalignment is not obvious. Both the premium on foreign exchange in the free market and the real exchange rate in the official market are endogenous variables with complex macroeconomic roles, and, as such, the correlation between them should depend in general on the sources of shocks impinging on the economy. Moreover, the parallel market premium is an asset price, which can be expected to exhibit much greater volatility than the official real exchange rate, in particular by responding to transitory shocks that leave the equilibrium real exchange rate unaffected. The very different time series properties of these two variables raise some doubt about the reliability of the premium as an indicator of real exchange rate misalignment.

This paper investigates how, in a developing country modeled along fairly standard lines, the parallel market premium and the real exchange rate jointly respond to some illustrative shock, taken to be a permanent productivity disturbance. The analysis suggests that the informational content of the premium may be limited because, in response to a shock, the premium will at various times along the adjustment path be positive and negative, whereas the degree of overvaluation of the currency is always positive for a negative shock and negative for a positive shock. The policy implication is that by itself the premium is not always a reliable indicator of real exchange rate misalignment. Other variables, including the various accounts of the balance of payments, may provide more reliable information.

JEL Classification Numbers
055

Summary of
WP/93/71

"Economic Trends in Africa: The Economic
Performance of Sub-Saharan African Countries"
by Pierre Dhonte, Jean Clement, Mbuyamu Matungulu, and Dawn Rehm

This paper draws on updates of selected macroeconomic and structural indicators to describe current economic trends in sub-Saharan African countries and to provide measures of the policy stance and of its impact on economic performance.

The paper presents contrasting findings. Overall, real GDP growth has been sluggish since 1989, the last year output growth exceeded population growth, partly because of a continuing weakness of export commodity prices. A disturbingly large number of countries continue to record overall budget deficits, including grants, of more than 3 percent of GDP. About two thirds of the countries have been running large current account deficits, and their ratios of external debt to GDP have continued to rise, sometimes at an alarming rate.

The paper also finds, however, that an increasing number of countries (currently 21 of the 26 non-CFA countries) have liberalized their exchange regimes, a move often associated with a transition to liberal credit markets. Countries that have moved in this direction have achieved a stronger depreciation of their real effective exchange rate, better growth, and better external viability than the other countries. Thus, they appear to have adjusted more fully to the adverse terms of trade shocks that have affected most countries. It may therefore be expected that, with a lag, the newly liberalized economies will experience a better performance.

JEL Classification Numbers
E21, O16, O41

Summary of
WP/93/72

**"Credit Markets and Stagnation in
an Endogenous Growth Model" by José De Gregorio**

Recent work on economic growth seeks to explain why some economies may be trapped in a stage of underdevelopment or may go through long periods of stagnation. Part of this literature emphasizes the existence of multiple equilibria arising from some form of externality or coordination failure. Another branch of this literature focuses on fundamentals (preferences, production, or market structure) that determine why poor economies stay poor, while rich economies may be able to sustain permanent growth.

This paper focuses on the role credit market imperfections play in explaining stagnation. In particular, it studies the effects on growth of the inability of individuals to borrow against future income to finance current consumption as well as the possibilities that an economy will become trapped in an equilibrium with low growth.

The model of this paper assumes that the engine of growth is human capital accumulation and that investment in human capital consists of formal education, which transfers income from the present to the future. Because individuals need to consume while receiving education, they must find a source of funds other than labor income to finance their consumption needs. If credit markets functioned without friction, individuals could borrow to finance current consumption and repay the borrowed amount (plus interest) in the future, when their productivity had been enhanced by education. However, if individuals face liquidity constraints, they will have the incentive to reduce the time they devote to education in order to work to finance consumption. In turn, if human capital accumulation is the engine of growth, liquidity constraints may end up reducing the rate of growth. The paper also shows that if the economy is subject to multiple equilibria--one with high growth and the other with low growth--liquidity constraints could increase the likelihood that the economy will end up in low growth equilibrium. Moreover, liquidity constraints could make the high growth equilibrium unattainable. These main ideas are formalized in a simple framework, which, at the cost of realism, clearly highlights the channel through which credit market imperfections, in the form of restrictions to borrowing from future income, may reduce growth.

JEL Classification Numbers
C51, E17, O11

Summary of
WP/93/73

"An Extended Scenario and Adjustment Model for Developing Countries" by Manmohan S. Kumar, Hossein Samiei, and Sheila Bassett

This paper discusses three important extensions of the developing country scenario and adjustment model used in the World Economic Outlook exercises. First, to analyze the impact of changes in domestic policies, fiscal and monetary sectors are introduced and private and public components of aggregate demand are modeled separately. Government revenue is determined endogenously and takes into account the lagged adjustment of revenue to inflation. Government expenditure is divided into current expenditure, which is endogenously determined, and capital expenditure, which is treated as an exogenous policy variable. With regard to the monetary sector, the stock of money is endogenously determined and prices are determined by the interaction of the money demand and supply functions. Government policy influences output directly through the effect of changes in expenditure on aggregate demand and indirectly through the effect of changes in the stock of money and prices on domestic absorption and exports. A change in the government's capital expenditure also affects the economy's productive capacity and the supply of exports.

Second, the external sector is modified to take account of the effect of domestic factors on imports. This is implemented by specifying that imports are externally constrained--and thus determined residually--only when the option of using reserves or foreign borrowing is not available to the country. The model is therefore made more flexible, so that, depending on the availability of reserves or new loans, imports may switch from being residually determined by external financial flows and export earnings, as in the original version of the model, to being determined in a behavioral manner by a mixture of domestic and external factors.

Third, the model system is extended to net creditor countries, whose imports are assumed to be determined primarily by domestic factors. The equation for private absorption is also modified to take account of the absence of external constraints, and, for the oil exporters within this group, a specific equation is developed for oil exports. Both export and import equations for the oil exporters are estimated using pooled cross-section time-series data and cross-country equality restrictions on the slope parameters.

The revised model is estimated separately for each of the 95 developing countries, and parameter estimates are presented for all developing countries, grouped both by geographical region as well as by analytical group with countries classified according to their predominant export. The paper also presents the results of four simulation exercises to illustrate how the new model system may be used to assess the effects of changes in domestic monetary and fiscal policies and in the external environment.

JEL Classification Numbers
P20, F32, F40

Summary of
WP/93/74

"The Russian Federation in Transition:
External Developments" by Benedicte Vibe Christensen

Russia's balance of payments difficulties are rooted in the basic structure and economic developments of the Soviet economy. A classical balance of payments crisis developed: macroeconomic imbalances increased, and structural problems created by decades of price distortions and central planning slowed domestic growth, including oil production. Three major systemic events had an impact on the balance of payments: the changes in external economic relations, including the disbanding of the Council for Mutual Economic Assistance (CMEA) in 1991; the disintegration of the U.S.S.R.; and the dismantlement of central planning and the introduction of market-related reforms in Russia from 1992. Although its savings balance has deteriorated since 1990, Russia has benefited from a decline in the implicit price subsidies to the former CMEA countries and the other states of the former Soviet Union.

The reform period in Russia that began in early 1992 has provided tentative lessons concerning the importance of a comprehensive set of economic policies and appropriate financial assistance. Although progress was made in price liberalization and in the reform of the exchange system during 1992, some key policy measures were not taken. In particular, interest rates were sharply negative in real terms and financial policies were loose, which gave rise to large capital outflows. In addition, the export regime remained highly restrictive. The policy of keeping domestic raw material prices below world market prices and protecting supplies for the domestic market through export quotas and tariffs restricted exports while encouraging illegal transactions.

Financial assistance from abroad increased substantially during 1992. Besides debt deferral, assistance came almost entirely from official creditors or was officially insured and linked to imports. It was extended on relatively short maturities, partly owing to Russia's heavy reliance on credits for imports of agricultural products and other consumer goods, which will burden debt service in the coming years. The experience showed the importance of determining responsibility for the external debt and assets of the former Soviet Union, agreeing on the amount and terms of the financial arrangements at the government level with the other states of the former Soviet Union, and regularizing relations with external creditors so as to ensure uninterrupted flows of financial assistance.

Russia's external prospects should be evaluated on the basis of its potential as an exporter to both the states of the former Soviet Union and other countries. External adjustment, including a reversal of the sharp export decline, will depend critically on economic policies, access to foreign markets for Russia's exports, and external financial assistance on appropriate terms, including non-debt-creating flows in the form of foreign direct investment.

JEL Classification Numbers
G2, G3, P2

Summary of
WP/93/75

**"The Role of Financial Institutions in the
Transition to a Market Economy"
by Hans J. Blommestein and Michael G. Spencer**

The economic transformation under way in the former centrally planned economies (FCPEs) was motivated in part by the recognition that central planning has failed to allocate financial and real resources efficiently. This paper addresses the question of what kind of financial system should replace central planning in allocating capital and maintaining effective corporate governance during the transformation period.

Financial sector reform has, at times, been portrayed as a question of adopting either a bank-based or a (securities) market-based model. In the bank-based model, commercial banks, often licensed as "universal" banks, take the lead in financing enterprise restructuring and investment. Proponents of the market-based model argue that the structural problems in the banking sector cannot be overcome easily; so firms will have to look to equity and bond markets for sources of new capital.

Equity and bond markets in the FCPEs are not sufficiently well developed to support significant issues of new securities or to provide a mechanism for corporate control. They lack adequate liquidity, regulatory oversight, information disclosure, and clearing and payment systems. The important role of banks in maintaining the payment system and in providing credit to market participants to support trading and settlement means that until banks are restructured and recapitalized, securities market development will be constrained.

Investment funds emerging from mass privatization schemes may create concentrations of equity ownership that would allow them to play an important role in corporate control and perhaps, too, in finding sources of investment capital. They are a relatively recent innovation, however, and it remains to be seen how active they will be in financing and managing privatized enterprises.

The authorities should first establish a healthy banking sector, because it is the banks that are the most promising source of working capital and corporate control. This does not mean that securities market development should be ignored, only that it should not be a priority use of scarce government resources at the present time.

Many observers recommend that banks be given the power to act as universal banks, combining lending with securities market operations and equity investment. The potential problems associated with such a model in the FCPEs during the transformation period outweigh any potential benefits. It is recommended, therefore, that commercial banking and investment banking activities be separated, at least until banks have demonstrated competence in their commercial lending operations.

JEL Classification Numbers
E43, F31, F33

Summary of
WP/93/76

**"Testing the Credibility of Belgium's
Exchange Rate Policy" by Ioannis Halikias**

The Belgian franc has been a member of the exchange rate mechanism of the European Monetary System since its inception in 1979. Following frequent downward realignments of the currency during the first half of the 1980s, Belgium pursued a progressively tighter exchange rate policy, and in May 1990 the monetary authorities announced their objective to tightly peg the Belgian franc to the strongest currency within the system.

This paper seeks to determine if long-run exchange rate credibility for the Belgian franc over the period 1982-92 has been attained. The starting point of the analysis is the interest rate corridor methodology introduced by Svensson (1990). This approach assumes that uncovered interest rate parity holds, and it takes explicit account of the currency's position within its fluctuation band in testing for exchange rate credibility. Tests along the lines of the interest rate corridor method suggest that despite substantial progress, long-run exchange rate credibility for the Belgian franc can be rejected throughout the period under discussion.

The remainder of the paper explores the sensitivity of this result to the strong assumption of interest rate parity. In addressing this issue, the determinants of the Belgian-German long-term interest rate differential are examined in detail. This differential turns out to be significantly affected by relative inflation (or relative competitiveness) and by fiscal variables (both the relative debt-to-GDP ratio and primary deficit-to-GDP ratio) in the usual ways. In addition, devaluations of the Belgian franc vis-à-vis the deutsche mark appear to have resulted in a significant widening of the differential over the short term, while the announcement of the hard currency policy appears to have led to a narrowing of the differential. Variables such as the unemployment rate and the external balance do not appear to significantly affect the differential, suggesting that the monetary authorities are perceived to attach a relatively low weight to these objectives.

The paper then breaks down the impact of the fiscal variables into an exchange rate risk and a sovereign credit risk component, by explicitly modeling inflationary expectations. The resulting adjustment in the interest rate corridors reveals that long-run exchange rate credibility cannot be rejected from mid-1990 onward.

JEL Classification Numbers
E31, E44, G21

Summary of
WP/93/77

"Asset Price Inflation in the 1980s: A Flow of Funds Perspective"
by Monica Hargraves, Garry J. Schinas, and Steven R. Weisbrod

During the 1980s, many industrial countries experienced a significant accumulation of debt, which was accompanied by a boom in asset markets and dramatic increases in asset prices. This paper adopts a flow of funds perspective in order to examine how and why financial resources were channeled almost exclusively to certain asset markets. It does so both by focusing on the microeconomic changes underlying the asset price and debt cycles and by examining where imbalances emerged, how funds were redirected toward certain asset markets, and why the process continued until price increases became unsustainable in some markets. Although similar patterns emerged in several countries, the paper looks particularly at the experiences of Japan, the United Kingdom, and the United States.

An important feature in all three economies was a declining demand for funds by traditional borrowers--corporations, governments, and, in the case of Japan, both. In all three economies, the financial system had to cope with a major redirection of funds to new borrowers. This shift in the demand for investment funds coincided with a shift in the types of financial assets demanded by savers, who moved increasingly toward trusts, pensions, and insurance. Thus, at the same time that borrowers were changing, the financial systems also had to create new instruments for savers, primarily households. Until new investments and financial instruments were developed, and consumers learned to evaluate them, funds were recycled in certain asset markets.

Country-specific factors meant that these financial market developments played out differently in each of the three countries. Changes in the behavior of borrowers and savers in Japan, for example, were accompanied by a large mismatch between saving flows and traditional investment opportunities, and Japanese asset inflation extended across both equity and real estate markets. In the United Kingdom, by comparison, asset inflation was largely confined to the real estate market, primarily because U.K. banks chose to fill the gap left by changing borrowing needs by taking advantage of the excess demand for housing that had accumulated during the earlier period of regulation, which provided a natural outlet for bank investment. In contrast to the other two economies, the changes in U.S. borrowing and saving patterns were accompanied by a major decline in the depository institutions' share of financial intermediary liabilities. Two major factors accounted for this decline: the Government increased its borrowing, and thus expanded the pool of marketable securities available to investors, and financial innovation permitted the securitization of traditional bank assets, such as mortgages. Thus, funds were redirected away from the corporate sector as savers moved into marketable securities and, unlike in both Japan and the United Kingdom, the resources available to the insured banking system for taking risks were limited. As a result, asset inflation was relatively subdued in the United States.

JEL Classification Numbers
E61, E63

Summary of
WP/93/78

**"A Framework for Assessing Fiscal Sustainability
and External Viability, with an Application to India"
by Karen Parker and Steffen Kastner**

The achievement of balance of payments "viability" is a central objective of most Fund-supported adjustment programs. A viable balance of payments is one in which a country's current account deficit can be financed, over the long term, by capital inflows on terms that are compatible with its development and growth prospects. Until recently, assessments of whether an economy was externally viable were based almost exclusively on balance of payments and external debt projections. These were used to profile future debt-service obligations and to estimate prospective financing gaps. The relationship between fiscal policy and balance of payments viability received less attention. Yet external projections alone cannot identify whether a country is on a sustainable path. The experience of many countries during the 1980s showed that policies that channel a large share of private savings toward financing government deficits may raise inflation and interest rates, depressing growth. A satisfactory assessment of medium-term viability must entail a careful examination of the public-private resource flows implied by the external, fiscal, and monetary targets.

Over the past decade, a large literature has developed around the issue of fiscal sustainability. Intertemporal models have identified the conditions for government solvency and have highlighted the consequences of untenable fiscal strategies. However, this literature does not address a number of practical questions that confront government authorities in setting fiscal policy: What are the short-run trade-offs between adjustment and deficit financing? What are the implications of alternative fiscal strategies for growth and external viability? This paper presents a simple macroeconomic simulation model that can be used to evaluate alternative fiscal strategies and their implications for medium-term viability. It is a step toward bridging the gap between the literature on fiscal sustainability and the demands of operational work.

The framework, developed in a spreadsheet format, generates estimates of public spending compatible with identified targets for growth, inflation, and government borrowing. The difference between the spending path consistent with these targets and that based on current policies is the fiscal adjustment required to meet the authorities' macroeconomic objectives. The framework can also be used to assess the implications for inflation, interest rates, and public indebtedness of a given spending path. Finally, one can analyze the impact of financial reform on fiscal and external performance. The principal products of the analysis are medium-term fiscal, savings and investment, and balance of payments projections. These are accompanied by sensitivity analyses to evaluate their robustness to alternative assumptions about macroeconomic policies, exogenous variables, and the model's parameters. The model is applied to India in order to illustrate the types of simulations that may be conducted.

JEL Classification Numbers
E24, J23, J42

Summary of
WP/93/79

"Efficiency Wages and Labor Mobility in an Open Economy"
by Pierre-Richard Agénor and Julio Santaella

The nature and extent of labor market segmentation in developing countries has been the subject of much debate over the years, particularly in the context of discussions related to urbanization, migration, and trade and structural reforms. By contrast, the implications of various types of labor market dualism for short-run determination of output and employment in an open economy have not received much attention.

This paper examines the implications of labor market segmentation and imperfect labor mobility for the short-run dynamics associated with macro-economic policy shocks, using a two-sector optimizing model of a small open economy. Firms in the traded goods sector determine both wages and employment, whereas wages in the nontraded goods sector are determined by the equilibrium condition between supply and demand. In addition, labor productivity in the traded goods sector is assumed to depend on relative wages. In equilibrium, firms in the traded goods sector always set the real wage above the level that prevails in the nontraded goods sector.

The case in which labor is homogeneous and perfectly mobile across sectors is considered first. The analysis shows that a permanent, unanticipated reduction in the devaluation rate leads to a drop in real wages in the traded goods sector and an instantaneous reallocation of labor away from the nontraded goods sector.

The model is then extended to workers whose movements across sectors occur gradually. The behavior of the economy with labor and/or job heterogeneity is shown to be qualitatively similar to the previous case when the speed of adjustment of labor to changes in expected payoffs is large, except that unemployment will typically emerge in equilibrium. However, a deflationary policy may not necessarily lead to an increase in unemployment in the short run. Firms in the traded goods sector do not reduce wages in the face of persistent sectoral unemployment because to do so would reduce productivity. When the speed of adjustment of labor is small, fluctuations in wages, employment, and output are dampened, but the transitory fall in the unemployment rate associated with a reduction in the devaluation rate will also be attenuated.

JEL Classification Number
F36

Summary of
WP/93/80

**"Government Finance in a Model of Currency
Substitution" by Anne Sibert and Lihong Liu**

This paper develops an equilibrium, optimizing model of currency substitution and applies it to seigniorage taxation in the presence of currency substitution. The theoretical framework is an overlapping-generations model with the finance constraint that goods must be purchased in the seller's currency. When consumers are young they are uncertain about what their preferences will be when they are old. Thus, they must decide how much of each currency to hold without knowing their future demand for goods. Consumers may trade currencies at a cost in the spot market immediately before purchasing goods. This cost is a measure of the substitutability of currencies. When the transaction cost is infinite, the model becomes a cash-in-advance constraint model; when the transaction cost is zero, the currencies are perfect substitutes and the analysis replicates the indeterminate-exchange-rate model of Kareken and Wallace (1981).

The model is found to yield money demand functions with reasonable properties. Demand for both currencies is positive when the cost of transacting in the spot market exceeds the rate of depreciation of the weaker currency. An increase in the future price of country two's good relative to country one's good lowers the share of portfolios allocated to the currency of country one if and only if first- and second-period consumption are gross substitutes. If utility is log-linear, the share of portfolios allocated to the weaker (stronger) currency depends positively (negatively) upon the transaction cost. The share of portfolios allocated to either currency depends positively upon its rate of appreciation. A stationary equilibrium is shown to exist if the cost of spot market transactions is not too small and monetary policies are not too different.

Governments are assumed to finance their expenditures by levying a costly income tax or by collecting seigniorage. In deciding the optimal level of inflation, they weigh the trade-offs between the costs of administering and complying with income taxes and the distortions created by rising prices. If identical governments cooperate, then the optimal rate of money growth is strictly positive. It is decreasing in the substitutability of currencies if and only if first- and second-period consumption are gross substitutes. If governments act independently, money growth may be either too high or too low depending on the degree of currency substitution.

JEL Classification Numbers
E62, H87, H21

Summary of
WP/93/81

"Supply-Side Economics in an Integrated World Economy"
by Enrique G. Mendoza and Linda L. Tesar

This paper examines long-run macroeconomic effects of fiscal policies in the context of a two-country, two-sector dynamic equilibrium model. Numerical simulations quantify the effects of changes in tax and expenditure policies on welfare and macroeconomic aggregates. Some of these simulations aim to examine part of the effects of European debt convergence and tax harmonization envisaged in the Maastricht Treaty and of fiscal consolidation in the United States. The model is calibrated to mimic features of the current stance of fiscal policy in industrial countries such as GDP ratios of government expenditures and tax rates on factor incomes and consumption as well as average growth rates and labor income shares in GDP. This benchmark model reproduces the observed output shares of consumption, investment, net exports, tax revenue, and government transfers.

A comparison of long-run welfare levels shows that in the model the costs associated with the distortions of existing taxes are large, as are potential gains of tax reforms favoring indirect taxes, and that, in contrast, incentives for immigration are small. Although transition costs following a tax reform dramatically reduce the long-run welfare gains, these gains are still larger than existing estimates of those derived from price and output stability, international risk sharing aimed at smoothing consumption, and decreased policy uncertainty.

Consumption taxes generate smaller welfare costs per unit of revenue than factor income taxes. The capital income tax is the least efficient because it distorts savings and lowers the investment rate. These findings imply that proposals to reduce budget deficits partly by shifting the tax system toward heavier capital income taxation may be suboptimal. Although tax policies affect the external balance, a widening fiscal deficit resulting from tax reductions does not always worsen the trade deficit. This is true of the labor income tax but not of capital and consumption taxes.

The effects of changes in government expenditures depend on whether they are uniform across tradable and nontradable sectors and on whether they are financed with distortionary taxes or lump-sum taxes. An expansion of expenditures financed with lump-sum taxes has significant effects when it is uniform across sectors, but not when it is biased toward nontradables. The opposite is true for a consumption tax-financed increase in expenditures.

The model shows that the effects of tax harmonization and public debt convergence on macroeconomic aggregates are small, but the welfare implications are significant. However, tax agreements that focus only on indirect tax harmonization induce incentives for low-tax countries to modify factor income taxes in order to offset welfare losses. Debt convergence results in welfare gains in excess of 4 percent for high-debt countries, with little impact on the performance of low-debt countries.

JEL Classification Numbers
F13, F23, D92

Summary of
WP/93/82

"Devaluation and Competitiveness in a Small Open Economy:
Ireland 1987-1993" by Leonardo Bartolini

This paper studies market expectations of a devaluation of the Irish pound from 1987 to 1993 and relates them to the evolution of Ireland's competitiveness over the same period. Changes in expectations of the currency's devaluation can be explained largely by developments outside Ireland, particularly by past and anticipated movements of sterling. The evolution of Ireland's real exchange rate over the same period is also found to be strongly linked to sterling's fluctuations, even after adjusting for sterling-insensitive trade between Ireland and the United Kingdom and despite the significant progress toward trade diversification recorded by Ireland during the 1980s. The devaluation of the Irish pound in January 1993 is estimated to exceed investors' realignment expectations at that time as well as the loss of Irish competitiveness since the beginning of the exchange rate mechanism (ERM) crisis in the summer of 1992. This "excess devaluation" helps explain subsequent large capital inflows and the Irish pound's smooth transition to the wide ERM band in August 1993.

JEL Classification Number
F31

Summary of
WP/93/83

"Expected Devaluation and Economic Fundamentals" by Alun H. Thomas

The two episodes of exchange rate collapse within the exchange rate mechanism (ERM) of the European Monetary System in September 1992 and August 1993 have kindled tremendous interest in understanding the causes of such forced parity changes. After a period of five years with fixed central parities, pressure built up during the summer of 1992 against the pound and lira which led to the suspension of both currencies from the ERM. At the beginning of August 1993, a communiqué was issued announcing the widening of the obligatory marginal intervention thresholds of the remaining participants in the ERM to ± 15 percent around each central parity.

This paper addresses the question of whether--and if so, how--these episodes of exchange market pressure are related to economic fundamentals by considering the examples of France and Italy. It demonstrates that the interest rate differential corrected for expected depreciation within the band is a reasonable estimate of expected devaluation for France, Italy, and the United Kingdom. The estimate of expected devaluation for the French franc, unlike the estimate for the Italian lira, can partly be explained by variables which reflect external and internal imbalances. In the analysis, the dominant explanatory variable is the position of each currency in its target band, and this variable is only weakly related to standard macro-economic fundamentals. When the band position variable is excluded from the analysis, official holdings of foreign exchange reserves become a significant determinant. However, the effect of the standard macroeconomic fundamentals is weak because no variable provides significant explanatory power for France and Italy over the whole period, and only the unemployment rate provides significant explanatory power for Italy for the subperiod 1987-92.

JEL Classification Numbers
031, 040

Summary of
WP/93/84

"International R&D Spillovers"
by David T. Coe and Elhanan Helpman

Recent theories of economic growth treat commercially oriented innovation in response to economic incentives as a major engine of technological progress and productivity growth. In this view, innovation feeds on knowledge arising from cumulative research and development (R&D) experience on the one hand, and it contributes to this stock of knowledge on the other. Consequently, an economy's level of productivity depends on its cumulative R&D effort and on its effective stock of knowledge, with the two being interrelated.

In a world with international trade in goods and services, foreign direct investment, and international exchange of information, a country's productivity depends on the R&D of its trade partners as well as on its own. Direct benefits of foreign R&D consist of learning about new technologies and materials, production processes, or organizational methods. Indirect benefits emanate from imports of goods and services that have been developed by trade partners.

The paper studies the extent to which a country's total factor productivity depends on domestic and foreign R&D capital stocks. For each of the countries in the sample, domestic R&D expenditures are cumulated as a proxy for the R&D capital stock and a foreign R&D capital stock is constructed as the import-weighted sum of the trade partner's R&D capital stocks. Equations are estimated on a pooled data set of 22 countries during the period 1970-90 and the results interpreted as pooled cointegrating equations.

The paper finds that both domestic and foreign R&D capital stocks have important effects on total factor productivity. While the beneficial effects of domestic R&D on total factor productivity are well established, the evidence of the importance of foreign R&D is new. Estimates suggest that the effect of foreign R&D on domestic productivity is stronger the more open an economy is to foreign trade. In the large countries, the elasticity of total factor productivity with respect to the domestic R&D capital stock is larger than with respect to the foreign R&D capital stock, whereas the reverse is true for some of the small open economies. Estimates also suggest that the rate of return on R&D capital stocks is very high, both in terms of domestic output and in terms of international spillovers.

JEL Classification Number
G21, G28

Summary of
WP/93/85

"Japanese Banks and the Asset Price 'Bubble'" by Steven M. Fries

With the collapse of the asset price "bubble," following a tightening of monetary policy in 1989-90, Japanese banks encountered pressure from both a sharp decline in the value of equity holdings and a marked increase in nonperforming loans. Concern about the banks reached a peak in August 1992. This, along with the evident weakening of the economy, prompted the Government to introduce a comprehensive economic stimulus package. The Government also took several measures that helped to stabilize equity prices and that aimed to assist banks in managing their loan problems. In January 1993, the banks launched the Cooperative Credit Purchasing Company (CCPC) to accelerate the writing down of bad loans.

The major banks disclosed that nonperforming loans--defined as those on which interest has not been paid for at least six months or those to bankrupt companies--amounted to 4.6 percent of their total loans at the end of fiscal year 1992. A mechanical extension of the disclosed nonperforming loan figure to include those of the regional banks, as well as restructured loans of all banks, produces an estimate of total bad loans in the range of 6-7 percent of all banks' total loans. In comparison, the hidden reserves of all banks amounted to 4.2 percent of total loans, whereas their core business profits have ranged from 0.4 percent to 0.8 percent of total loans. Thus, from an aggregate perspective, the bad loan problem is serious yet manageable.

The distribution of the bad loans is not uniform relative to the ability of the various segments of the banking industry to bear the associated losses. The problem appears to be more acute for the trust banks. Whereas the incidence of nonperforming loans of the trust banks is on par with that of the city banks, the core business profits of the trust banks deteriorated significantly in recent years. The trust banks have also fared less well than other types of banks in the more liberalized, competitive, and efficient financial system in Japan.

In view of the uneven distribution of the bad loan problem relative to profits, the most immediate policy concern has been the emergence of a liquidity strain. No Japanese bank has posted a net loss in the postwar period. To encourage the writing down of bad loans, the Governor of the Bank of Japan has stated publicly that the central bank would provide liquidity support to any bank that experiences temporary funding difficulties after posting a net loss because of heavy loan loss provisions. With this safeguard in place, every effort should be made to resolve reasonably promptly the bad loan problem.

Measures to enhance market discipline may lessen the likelihood that such a marked deterioration in banks' asset quality will recur. Foremost among such measures is the placing of adequate private capital in the banking system. The fuller disclosure of banks' asset quality may also enhance market discipline.

JEL Classification Numbers
E62, F17, H56

Summary of
WP/93/86

"The Impact of Worldwide Military Spending Cuts on Developing Countries" by Tamim Bayoumi, Daniel Hewitt, and Steven Symansky

Recent developments indicate that a precipitous fall in world military spending is under way. Between 1985 and 1990, world military expenditures as a ratio to GDP are estimated to have fallen by over 20 percent or slightly less than 1 percent of GDP. The drop in the arms trade is even greater, approaching 50 percent in monetary terms. In spite of a number of well-publicized exceptions, the trend is widespread. Significant decreases in military expenditures and trade are evident in most parts of the developing world, as well as among the former combatants in the cold war.

Recent simulation-based research, concentrating on industrial countries, indicates that a drop in military spending will tend to have negative short-term effects on overall output and employment. The purpose of this paper is to investigate in more detail the economic impact of reducing military spending in developing countries. Overall, the paper finds substantial long-term economic gains for developing countries from cutting military spending. However, the short-run effect on total output, which includes military expenditures, is ambiguous, depending largely on the underlying level of military spending as well as on other assumptions.

Cutting military spending by 20 percent worldwide could produce in developing countries a long-run increase in private consumption of 0.8 percent and in private investment of 2.1 percent. These gains in turn produce a rise in economic welfare, estimated at \$1.45 trillion in 1993 prices, which in present value terms is 46 percent of 1992 GDP compared with military expenditure cuts of 33 percent of 1992 GDP. The welfare gains across individual developing countries are affected by a number of factors. Larger gains in welfare are associated with larger cuts in military spending, larger cuts in military imports, higher ratios of commodities exports, and close bilateral trade links with the United States. On the other hand, triangular patterns of trade in which countries import from Japan and export to the United States are associated with lower welfare benefits, owing to an unfavorable terms of trade effect. Overall, the developing country region of the world that benefits most from military spending cuts is Africa.

These results are relatively insensitive to the timing of the military spending cuts or expectations about the future, although these factors do have an impact on the size of the short-term losses in output. By contrast, if part of the military expenditures are assumed to represent a fall in productive investment, the short-term impact on output is relatively unaffected, but the estimated gains in economic welfare fall significantly.

JEL Classification Number
E52

Summary of
WP/93/87

"Monetary Instruments and Their Use During the Transition
from a Centrally Planned to a Market Economy" by Paul Hilbers

There is a consensus among economists that industrial countries with well-developed financial markets should rely on indirect, market-based instruments of monetary control rather than on direct instruments. The basic argument is that indirect measures, which allow the markets to distribute and allocate credit, promote a more efficient allocation of financial resources. For the same reason, developing countries that aim at establishing a more market-oriented economy tend to substitute indirect instruments for direct controls as part of a financial sector reform process.

Although formerly centrally planned economies share many characteristics with traditional developing countries, there are also a number of clear differences, in particular with regard to the functioning of the financial system. Some financial characteristics that are typical of the former are a segmented, two-tier banking sector; separate financial circuits for the household sector and enterprises; fluctuating inter-enterprise credits and arrears; soft budget constraints for state enterprises; and a lack of commercial banking and liquidity management skills in the banking sector. In the conditions prevailing in these economies, indirect instruments may have been unable to operate properly. Therefore, the value of immediately introducing indirect monetary controls into such economies is questionable.

This paper examines the choice of monetary instruments for countries that are moving from a centrally planned to a market economy. The main features of their financial systems are analyzed, and the different arguments in favor of indirect instruments are tested. The paper argues that in some cases the advantages of direct instruments in controlling overall monetary developments during the earlier transitional stages seem to surpass their drawbacks in other areas, especially because direct instruments can be modified to allow a greater role for markets.

Monetary instruments in emerging market economies must be effective in controlling overall monetary developments and must promote, or at least allow, the establishment of a more market-oriented financial system. In general, the instruments should be compatible with the financial system within which they will operate. During the typically gradual transition from a state-controlled to a market economy, a correspondingly gradual replacement of relatively direct by more indirect instruments seems the best way to support the development of a market-oriented financial sector while maintaining overall monetary control.

"Financial Liberalization and the Information Content of Money
in Indonesia, Korea, and the Philippines" by A. Javier Hamann

In a recent paper, Friedman and Kuttner (1992) have argued that, independently of how monetary policy is conducted (that is, either committing to an intermediate target, monitoring monetary developments as part of a set of information variables used to formulate feedback rules, or a combination of the two), money can be a helpful variable if it contains information on future developments in output and prices, the variables usually associated with policymakers' ultimate objectives. This paper follows their approach and uses the VAR methodology to investigate whether movements in money or credit are useful for predicting subsequent movements in output or prices. It then goes on to examine whether the observed empirical relationships in Indonesia, Korea, and the Philippines have changed over time in response to financial sector reforms.

The results are varied and warn against the use of generalizations. In Korea, money was found to contain valuable advance information on output and prices; in the Philippines, to contain information only on the future behavior of prices; and in Indonesia, to contain no advance information. A common test result is that in those cases where some financial aggregate was found to be a significant leading indicator of output or price behavior, a measure of money, narrow or broad, outperformed credit in terms of information content.

Different results were also obtained from the various tests on the effects of financial sector reform on the information content of money. The information content of financial aggregates practically disappeared after the reform in Korea, but was enhanced in the Philippines; money consistently lacked information content in Indonesia. Further tests were conducted in order to assess the information content of exchange and interest rates, variables that gained flexibility with the reforms. Exchange rates were found to contain valuable information about future developments in prices in Korea and the Philippines. Interest rates, in contrast, were found to be significant only in the Philippines; however, in the presence of interest rates no monetary aggregate was significant. These findings strongly suggest that exchange rates could be valuable indicators or guides of monetary policy in these countries.

JEL Classification Numbers
C72, D72, E64

Summary of
WP/93/89

"Price Controls and Electoral Cycles" by
Pierre-Richard Agénor and Carlos M. Asilis

Traditional microeconomic analysis shows that effective price ceilings below the market equilibrium level result in excess demand, nonprice rationing, and misallocation of resources. However, despite these well-known inefficiencies, price controls have been used repeatedly in the context of stabilization programs in developing countries.

This paper examines the interactions between political and economic factors that contribute to the implementation--and eventually the removal--of price controls. It focuses, in particular, on the role of elections and the cohesiveness of party coalitions. The analysis shows that, to the extent that macroeconomic outcomes affect voters' behavior, an incumbent seeking re-election will attempt to secure, before the electoral contest, the short-term political advantage of the lower rate of inflation brought about by price controls. Immediately after the election, the macroeconomic losses associated with price controls assume greater importance at the same time that the potential political gains from imposing such controls tend to dissipate. Hence, prices are adjusted sharply upward. However, with backward-looking wage contracts, controls are tightened rather quickly afterward because past inflation rates tend to have a larger effect on the current rate.

When uncertainty about the term in office prevails--a situation that may occur if the incumbent represents a coalition of political parties, which may collapse at any given moment--price controls tend to be used less intensively over the electoral cycle.

JEL Classification Number
F41

Summary of
WP/93/90

"On Credible Disinflation" by Jorge E. Roldós

The main "stylized facts" from the attempts to stop chronic inflation using reductions in the rate of the devaluation are a sustained appreciation of the domestic currency, current account deficits and increases in real activity at the beginning of the programs, followed by contractions. Most explanations of these facts have relied upon the existence of backward-looking price-setting behavior or of credibility problems. This paper shows that those stylized facts can be obtained as an equilibrium outcome in an economy with continuous market clearing, rational expectations, and no credibility problems.

The paper studies the effects of a gradual decline in the rate of devaluation rather than the more traditional, unexpected permanent reduction, in a two-sector economy subject to a cash-in-advance constraint. The gradual reduction in the rate of devaluation constitutes a progressive reduction in the monetary "wedge" generated by the transactions technology. This yields an increasing path of consumption, which in the case of the nontradable good, can be obtained only with a protracted real exchange rate appreciation. An initial increase in net foreign assets allows consumption of the tradable good to increase over time even when its production is falling; hence, a progressive trade deficit (or reductions in the surplus) follows.

The fact that intertemporal substitution in labor supply appears to be higher than that in consumption is exploited to generate a boom in economic activity at the onset of the program. The progressive reductions in inflation further increase labor effort, as the implicit bias toward leisure that inflation induces is removed from the system. The paper argues that when credibility is gained in the early stages of the program, as in the Mexican stabilization of 1988-92, a recession may not follow the initial boom. Casual evidence suggests that increases in labor supply, coupled with a flexible labor market, played a significant role in the Mexican success--in accordance with the predictions of the model.

JEL Classification Numbers
J20, E24, E32

Summary of
WP/93/91

"Labor Market Aspects of Industrial
Restructuring in Canada" by Eswar Prasad

This paper investigates the hypothesis that the relatively slow recovery of output and employment in Canada after the last recession may be attributable to the short-term negative effects of industrial restructuring that have temporarily overwhelmed the longer-term positive effects and dampened the typical cyclical upswing in the economy. Recent developments in the Canadian labor market are examined to provide a partial assessment of the nature and magnitude of industrial restructuring in Canada.

Measures of dispersion in employment growth at the broadly defined (1-digit) sectoral level reveal little evidence of recent sectoral shifts prompted by restructuring. Within the manufacturing sector, the dispersion of employment growth has been relatively high since 1990, indicating that large interindustry shifts may have occurred within manufacturing. Using labor reallocation measures over a three-year horizon, this paper also finds some evidence that long-term net flows of labor may be occurring across broadly defined sectors of the economy.

The implications of industrial restructuring for the medium- and long-term prospects for the Canadian economy are then examined. Although productivity levels have increased at both the aggregate and sectoral levels over the last few quarters, a large part of this increase may be attributable to relatively low levels of labor hoarding by firms in anticipation of prolonged weak aggregate demand conditions. Evidence of permanent gains in productivity growth arising from restructuring remains elusive.

The rising employment shares of low productivity sectors such as trade and services suggest that, even if the increase in the growth rate of manufacturing productivity proves to be permanent, aggregate labor productivity growth may not show substantial permanent improvement. The evidence presented in this paper suggests that the recent increases in labor productivity may represent a cyclical phenomenon rather than a permanent increase in the rate of growth of productivity.

JEL Classification Number
E22, E27, E62

Summary of
WP/93/92

"Recent U.S. Investment Incentives" by Christopher M. Towe

Concern that the tax changes adopted during the 1980s contributed to the secular decline in net investment in the United States led the previous and current administrations to propose investment tax incentives. Proposals in the January 1992 budget included a reduction in the capital gains tax, and those in the February 1993 budget included the reintroduction of an investment tax credit. The results of a simulation exercise suggest that a decline of roughly 10 percent in the user cost of producer durables could have been expected from the administration's February 1993 proposals.

However, empirical study of the 1980s--a period in which changes to the tax code had even larger effects on the cost of capital--does not support the conclusion that tax policy was responsible for the decline in investment demand during the second half of the 1980s. Moreover, simulations of the 1993 budget proposals suggested that although the temporary introduction of an investment tax credit would have stimulated investment, the increase in investment would have been largely reversed upon expiration of the tax credit.

JEL Classification Numbers
I11, I18

Summary of
WP/93/93

"U.S. Health Care Reform" by Ellen M. Nedde

High and rapidly rising health care costs in the United States and growing ranks of uninsured persons have brought health care reform to the top of the U.S. Administration's policy agenda. This paper describes the health care financing system in the United States and highlights what are viewed as its most serious shortcomings. The study suggests that the most important factors behind the rapid increase in medical care spending over the past thirty years include rising national income and the advent of new and expensive medical technologies, while the importance of demographics and medical malpractice costs has been exaggerated. Reasons for the high level of expenditure in the United States include excess capital investment, the performance of unnecessary procedures, and administrative waste.

The most commonly cited proposals for reform of the U.S. health care system to provide universal coverage and control costs include tax credits, "play or pay" mandates, managed competition, and national health insurance. Under managed competition, government regulations are designed to ensure an equitable distribution of health care resources and to deal with the special characteristics of the health care market, such as information asymmetries and institutional limits on competition. Meanwhile, elements of competition are introduced to increase cost-consciousness among consumers, providers, and insurers and thus enhance efficiency. In order to complement the incentives for cost control under managed competition, some observers would advocate limits on national health expenditures or global budgets. Whether health care reform based on managed competition would need to rely on global budgets to control spending over the longer term depends in large part on the extent to which it could encourage cost-saving rather than cost-increasing technologies.

JEL Classification Number
E24, E61, J32, J65

Summary of
WP/93/94

"Endogeneity in Structural Unemployment Equations:
The Case of Canada" by Caroline Van Rijckeghem

This paper examines the endogeneity of several structural variables that enter unemployment rate equations--the generosity of unemployment benefits, nonwage labor costs, the relative minimum wage, and the degree of unionization. The paper develops arguments explaining why the structural variables are endogenous in the context of the Canadian institutional setting and provides evidence of reverse causality in the form of Granger and Geweke causality tests. The structural unemployment rate equation is then estimated using instruments suggested by the structure of the Canadian labor market. The paper confirms the earlier finding (Coe, 1990) that the generosity of unemployment benefits, nonwage labor costs, and the relative minimum wage have a significant positive impact on the unemployment rate, but fails to find an effect for the degree of unionization. The results indicate that nonwage labor costs and the minimum wage have a powerful impact on the unemployment rate, while the generosity of unemployment benefits has a relatively small impact.

JEL Classification Numbers
F3

Summary of
WP/93/95

"The Integration of World Capital Markets"
by Morris Goldstein and Michael Mussa

This paper surveys the available empirical evidence on the integration across national capital markets. Various measures of the degree of integration--including deviations from the law of one price, differences between actual and optimally diversified portfolios, correlations between domestic investment and domestic saving, and cross-country links in consumption behavior--are considered. The authors find that capital market integration has been increasing over the past decade--especially for high-grade financial instruments traded actively in the wholesale markets of major financial centers. Capital markets in developing countries, too, are becoming more closely integrated with markets in the rest of the world, although they have progressed less far in that direction than the industrial countries. It is still much too early to speak of a single, global capital market where most of the world's savings and wealth are auctioned to the highest bidder and where a wide range of assets carries the same risk-adjusted expected return. Some important components of wealth (like human capital) are scarcely traded at all, and currency risk, the threat of government intervention, and the strong preference for consuming home goods and investing in more familiar home and regional markets still serve to restrict the range and size of asset substitutability. But the forces for greater arbitrage of expected returns are already powerful enough to have made a large dent in the autonomy that authorities have over macroeconomic and regulatory policies. When private markets, led by the increasing financial muscle of institutional investors, reach the concerted view (rightly or wrongly) that the risk-return outlook for a particular security or currency has changed, those forces are difficult to resist. Moreover, the authors see little in the factors underlying the evolution of international capital markets to suggest that the increased clout of private markets will reverse itself in the future. Quite the contrary.

The growth and agility of private capital markets have made the conditions more demanding for operating durably and successfully a fixed exchange rate arrangement. There is now less room for divergences of view among participants about the appropriate stance and medium-term orientation of monetary policy, less time to adjust to country-specific shocks, and greater pressure to achieve closer convergence of economic performance.

With benefit of perfect hindsight, it is not hard to identify instances over the past decade when international capital flows (like domestic ones) did not pay enough attention to fundamentals. Nevertheless, the authors see no basis for concluding that private capital markets usually "get it wrong" in deciding which securities and currencies to support and which ones not to. On the whole, most of the policy changes that have been forced by international capital markets seem to have been in the right direction. The authors therefore see more merit in trying to improve the "discipline" of markets so that it is more consistent and effective rather than in trying to weaken or supplant the clout of markets.