The Macroeconomic Effects of Exchange Rate Unification, with Special Reference to the Islamic Republic of Iran

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Empirical evidence and theoretical arguments suggest that exchange (and trade) restrictions-and the resulting multiple official exchange rates and informal markets-have been largely ineffective in safeguarding reserves or in supporting an overvalued official exchange rate, particularly in developing countries. Although the informal exchange market may be viewed as a desirable development when official exchange rates are overvalued because it satisfies the excess demand for foreign exchange in the official market, multiple exchange rate systems nonetheless entail significant costs in terms of administrative expenses related to enforcement; loss of tariff receipts, income taxes and domestic indirect taxes; lower supply of foreign exchange to the central bank; and the emergence of (unproductive) rent-seeking activities.

High informal-market premia considerably weaken the balance of payments, since the inevitable diversion of export receipts from the official to the informal market contributes to the unsustainability of the fixed official rate. The potential for substitution of foreign currency for domestic currency through informal markets may

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accelerate capital flight as a means to avoid the inflation tax on domestic currency holdings. When domestic residents shift their liquid financial wealth from domestic to foreign money balances there is a loss of seigniorage revenue for the government, which may be forced to impose a higher rate of the inflation tax to finance a given real fiscal deficit, thereby inducing recurrent devaluations of the official exchange rate(s). Finally, the rationing of foreign exchange and nonmarket-determined relative prices of tradable goods result in shortages of intermediate inputs and disincentives to produce tradable goods. Low levels of capacity utilization, as well as sluggish growth of export industries impact negatively on overall economic activity and long-run economic growth (villanueva, forthcoming). Thus, with the objective of improving the allocation of scarce foreign exchange resources through the removal of discriminatory practices and the legalization of economic activities, many developing countries in recent years have increasingly replaced multiple exchange rate systems with unified market-oriented exchange arrangements.

This paper provides a preliminary framework for assessing the possible macroeconomic implications of a unified flexible exchange rate system similar to that adopted by Iran in March 1993. Section I analyzes the potential effects on the inflation rate, the balance of payments, and real output. It also draws some implications for public sector policies, including the budget and the operations of the state enterprises, and for monetary policy-this in the context of a brief review of the experiences of several countries. Section II is a preliminary application of the economic framework to an interpretation of the evolution of the exchange arrangement in the Islamic Republic of Iran, leading to the unification of the official exchange rates. It illustrates an aspect of the general framework by providing some rough quantitative estimates of the impact effects of exchange rate unification of the domestic price level. Section III provides a summary, suggests additional research for evaluating the usefulness of the framework in the Iranian context, and draws some policy implications.

I. An Economic Framework

Many developing countries have unified exchange rates only for commercial transactions and retained controls over capital outflows. " Unification " in this paper refers to the process of consolidating multiple official rates into a single market-determined exchange rate.

The macroeconomic consequences of exchange rate unification are partly dependent on the particular uniform exchange rate system that is to be adopted. In general, the choice would involve a floating or a fixed (or crawling) exchange rate.1/

١. *Impact on the price level*

The adoption of a floating rate regime has implications for the behavior of the exchange rate and the rate of inflation in both the short run and the long run. In the short run, the determination of the uniform floating exchange rate is likely to be dominated by valuation effects--on the budget, net foreign assets, and the external debt service burdens of the public sector, including the state enterprises--and by portfolio decisions which are particularly difficult to predict. The valuation effects refer to the automatic adjustments in the foreign-currency components of expenditure and revenues of the government and state enterprises, and in the foreign assets and liabilities of the central bank and commercial banks.

Leaving aside the valuation effects, the behavior of the uniform rate in relation to the free rate of the multiple system depends on the private sector's perception of the strength of adjustment policies accompanying the unification and the government's credibility in implementing these policies. If the private sector expects that those policies will be successful in stabilizing the economy and lowering the rate of inflation, it will adjust its portfolio towards domestic money.

1- A suitable economic framework for our purposes is provided by a recent survey paper (Agenor, 1992) on multiple exchange rates and exchange rate unification.

As a result,. the uniform rate could appreciate with respect to the previous free rate of the multiple system. It is very unlikely, however, that the uniform rate will be appreciated with respect to the official rate(s) of the multiple system.

Alternatively, if the private sector is skeptical about the effectiveness of adjustment policies, and expects the unified regime to be accompanied by a rise in the rate of inflation, the uniform rate may turn out to be depreciated with respect to the free rate of the multiple system. Thus, while the uniform rate is likely to be depreciated with respect to the official rate(s), it could be either appreciated or depreciated with respect to the free rate of the multiple system, depending largely on the accompanying policies.

In the long run, the inflationary impact depends partly on the fiscal effect of the exchange rate unification. Other things being equal, if the multiple system initially provided profits to the government, the unification of the rates would adversely affect the fiscal position on a cash basis. Without the implementation of compensatory measures,the consequent increase in the government's financing requirement would inevitably result in a higher rate of inflation and a higher rate of depreciation of the exchange rate (sherwood, 1956; Pinto, 1989). On the other hand, if the multiple exchange system, initially involved implicit government subsidies to the enterprise sector (including state-owned firms), the exchange rate unification would impact favorably on the fiscal position.

Under a predetermined fixed (or crawling) rate system there are again long-run and short-run issues to consider. The long-run situation does not differ significantly from the case of a uniform floating rate because the fixed rate (or the rate of crawl) chosen by the authorities must be consistent with long-run balance of payments equilibrium. In the short run, prevailing currency-substitution models predict that a depreciation of the official exchange rate results in a less-than-proportionate depreciation of the parallel rate, and an initial decline in the premium on foreign currency in the parallel market. In the long run, the price level will be permanently higher and the parallel rate will be more depreciated, resulting in an unchanged premium. These models also predict that a depreciation of the official rate by itself cannot permanently lower the premium unless supported by tight

financial policies--a prediction borne out conclusively by the experiences of a large sample of developing countries (Edwards, 1989; Edwards and Montiel, 1989; and kamin, 1991 a,b). Further, if the depreciation strategy were to maintain the premium below a target level, a depreciation-inflation spiral could easily be triggered, as the Bolivian experience in the early 1980s sugests(Kharas and Pinto, 1989).

Similar to the analysis of the floating regime, the behavior of the parallel market premium under a fixed rate system also depends critically on whether of not the official depreciation is anticipated. As asset holders anticipate the official depreciation, they will shift their portfolios away from domestic into foreign money, inducing the parallel market rate to depreciate immediately and the premium to rise prior to the official devaluation. This illustrates a basic problem with using the parallel rate as an indicator for the initial level of the post-unification official rate. Setting the latter equal to the former would be consistent with balance-of-payments equlibrium only if expectations were correct.

If the official depreciation were unanticipated, the reduction in the premium at the initial parallel rate would cause a reflow of foreign exchange from the private market to the official market, requiring a depreciation of the parallel rate to maintain equilibrium in the unofficial market. Thus, the parallel rate depreciates at the time of the official devaluation.

٢. *Impact on the balance of payments and real output*

Prior to the depreciation of the official exchange rate, continuous domestic inflation causes the official rate of the home currency to become overvalued real terms and increases the parallel - market premium on foreign exchange. There will be increases in export under- invoicing and reductions in officially measured exports, which reduce official reserves. Imports fall as the central bank tightens foreign exchange-allocations to protect a dwindling stock of reserves. An official depreciation reduces the premium on impact, which lowers under-invoicing and increases officially recorded exports. Official reserves rise, allowing the central bank to ease foreign exchange

availability for imports.

As already noted, the uniform floating rate is likely to be depreciated with respect to the previous official rate(s). Research on the output effects of a currency depreciation does not point to a uniform result (Lizondo and Montiel, 1989). While there are reasons to believe that a depreciation might initially have a contractionary effect on real economic activity, there are equally good arguments to be made for the opposite view. In general, the response of output to a currency depreciation depends, among other things, on the structure of production and demand for traded and nontraded goods in the economy, the behavior of wages, and the initial conditions when the devaluation is undertaken. As these will vary from country to country the output effects will necessarily depend on the circumstances of the country concerned.

In particular, where a country is initially characterized by severe distortions and large macroeconomic imbalances, a depreciation could boost output and employment even in the short run. For example, to the extent that contractionary effects depend on an increase in the domestic price level, such effects would be weaker in the presence of quantitative restrictions on imports, since the domestic- currency prices of such goods would already reflect their scarcity value. Moreover, quantitative restrictions on imports of intermediate and capital goods undertaken for balance of payments reasons may be eased in conjuction with the depreciation of the home currency, which would have a favorable impact on domestic production costs. On the other hand, it is also possible that the lifting of restrictions would shift demand from domestic to foreign goods. It appears, therefore, that the question of whether or not a depreciation is contractionary depends on the nature of the initial distortions, and on the specific changes in them that are induced by the depreciation. Even if circumstances point to a short-term contractionary impact, there is still the issue of whether this might not be an acceptable price for a better and more balanced growth performance in the medium and long run.

3- *Country experiences*

What have been the experiences of countries that adopted market-oriented exchange systems? Roberts (1989) has studied 9 African countries (Gambia, Ghana, Guinea, Nigeria, Sierra Leone, Somalia, Uganda, Zaire and Zambia). Other countries that have recently implemented a floating rate system include Uruguay in late 1982, Jamaica and the Philippines in 1984, Bolivia and the Dominican Republic in 1985 (Quirk et al., 1987,1989), Sudan in 1981-82 (Branson and de Macedo, 1989), and post-1989 Venezuela (Hausmann, 1990). All these countries undertook exchange reforms in response to increasing external payments problems, rising arrears and capital flight, and an important parallel foreign exchange market, Table 1, which is reproduced from Agenor (1992), summarizes the results for nine African countries. The initial depreciation rates at the time of the reform were substantial in Nigeria, Sierra leone, Somalia, Uganda, Zaire, and Zambia. The evidence clearly shows that the failure (for example, in Zambia and Ghana) or successs (for example, in Gambia) of the exchange rate unification is associated with a absence or presence of financial discipline. Monthly data on the premium for Guinea, Nigeria, Uganda, and Zaire are presented in Figure 1, which shows the premium rising before the exchange reform partly in anticipation of the reform itself, then declining following the reform. There is also evidence that a significant premium re-emerged in those countries that lost control of monetary policy (Ghana, Sierra Leone, Somalia, Zambia).

Two more patterns can be observed from the data. First, the post-unification exchange rate is usually close to the pre-unification free rate. contrary to the argument that the " equilibrium" exchange rate is the average of the official and parallel rates. This may be explained by the fact that the private sector had anticipated the unification of exchange markets. Second, as pointed out by Pinto (1989), the substantial one-shot depreciation of the official exchange rate has not necessarily been associated with a rise in inflation (for example, in Nigeria, Zaire) where financial policies were kept tight, since domestic prices already reflect the more depreciated parallel rate. This implies that the post-unification rate of inflation basically depends on

Table 1. Changes in Exchange Rates, Money Supply, and Prices in Nine African Countries

(In Rates to U.S. Dollars and Percentages)

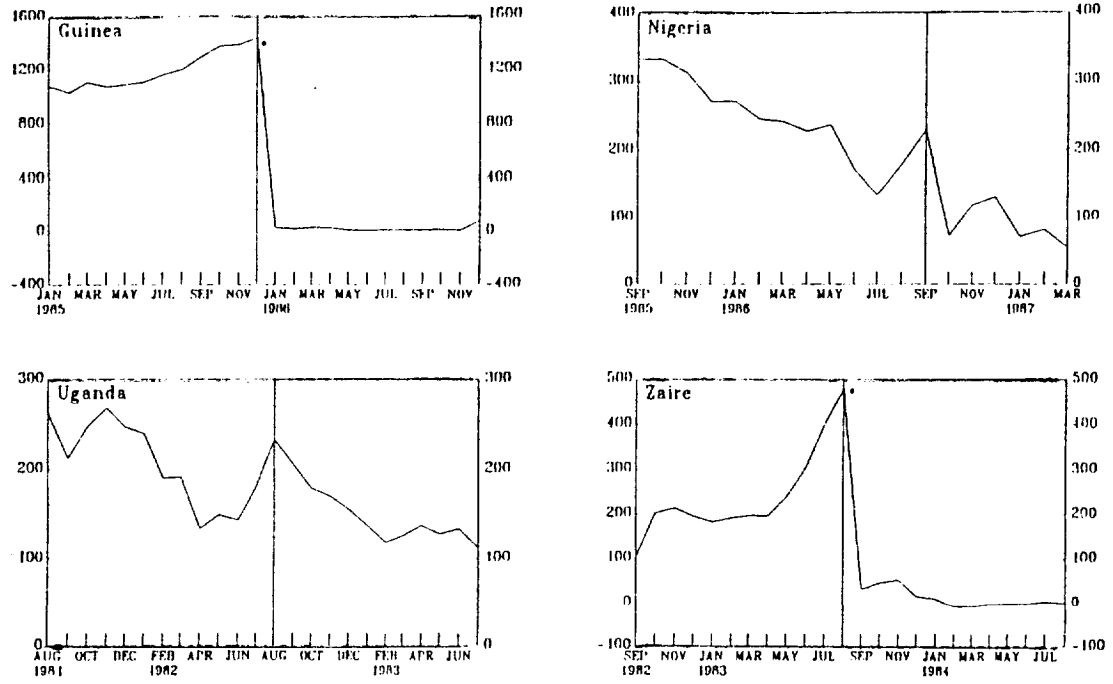
Country	Start of Float or Auction	Rate before Depreciation		Rate Immediately After Depreciation	Initial Nominal Depreciation of Official Rate (%)	Broad Money Growth in First Yr. (%)	Inflation in Rental Prices in First Yr. (%)
		Official	Parallel				
Gambia	1/86	3.5	7.0	6.8	49.0	7.0	54.2
Ghana	9/86	90.0	150.0	120.0	25.0	65.0	45.0
Guinea	1/86	270.0	420.0	340.0	20.0	75.0	71.0
Nigeria	9/86	1.6	4.0	4.8	66.0	15.0	15.0
Sierra L.	7/86	5.0	15.0	12.0	58.0	126.0	320.0
Somalia	1/85	26.0	90.0	90.0	71.0	81.0	38.0
Uganda	8/82	100.0	360.0	300.0	67.0	42.0	40.0
Zaire	9/83	5.8	66.0	30.1	80.0	35.0	50.0
Zambia	9/85	2.2	3.9	5.0	56.0	70.0	55.0

Source: Roberts, 1989, p. 130.

Figure 1

Parallel-Market Premia in Unification Attempts

(in percentages)



SOURCE: International Monetary Fund and *World Currency Yearbook*.
NOTE: Asterisks mark start of float or auction.

the fiscal implication of unification and accompanying financial policies.

4. *Implications for macroeconomic policies*

What are the policy lessons from the recent experience of developing countries with exchange-rate reform? First, the success of exchange-rate unification requires fiscal and monetary discipline. The role of public sector policies is critical . A tight fiscal stance, the imposition of a hard-budget constraint on state enterprises, and conservative monetary policy will contribute to a successful unification of exchange markets. Second, the full unification of the official and parallel rates into a single rate requires lifting all restrictions on capital and commercial transactions. Eliminating import licenses and foreign exchange allotments has the effect of making import transactions to be completely market determined, subject only to the distortions attributable to tariffs. The experiences of Nigeria and Zaire, which adopted a floating arrangement only for commercial transactions while retaining controls over capital outflows, suggest that restrictions on capital flows and a loss of control over financial policies together failed to reduce the parallel-market premium.

II. Preliminary Application to the Islamic Republic of Iran

This section discusses the evolution of the Iranian exchange rate system in recent years, outlines the present system with its unified floating official rate, and analyzes various issues using framework of the preceding section. A quantitative exercise measuring the impact effect on the rate of inflation provides an illustrative application of the general framework.

1- The pre-reform exchange system

Table 2 summarizes the multiple exchange rate system prevailing just prior to the unification of the official market exchange rates. There were several notable features of the pre-unification

Table 2. Islamic Republic of Iran: Summary of the Pre-Unification Exchange System

Foreign Exchange Allocation Procedures	Receipts	Payments
1. Official allocation based on foreign exchange budget		
a. Basic official rate (Fixed at Rls 92.30 = SDR1)	Oil and gas exports; official capital inflows and invisibles.	Specific imports including essential food, spare parts, raw materials, defense-related goods and imports for important national projects. Imports covered out of the foreign exchange budget, and require approval by the Ministry of Commerce and Ministry which allocates the foreign exchange. Capital and Invisibles. Official debt and invisibles; repatriation of dividends on foreign direct investment for commodities that are sold under local price controls; 30 percent of the net salaries of "essential" foreign workers; payments of education allowances for authorized students; and certain medical expenses.
b. Competitive rate (Fixed at Rls 600 = US$1)	Sales by embassies to meet local costs.	Specific imports of raw materials, spare parts, and certain consumer products. Imports covered out of the foreign exchange budget, and require approval by the Ministry of Commerce and the Ministry which allocates the foreign exchange. Invisibles. Certain medical and transportation expenses.

Table 2. Islamic Republic of Iran: Summary of the Pre-Unification Exchange System

Allocation Procedures	Receipts	Payments
2. Floating rate (Variable, fixed daily by the Bank Markazi, approximately Rls 1443 = US$1)	Export proceeds from non-oil commodities have to be repatriated within 6 months (12 months for carpet exports) to meet repatriation commitments at the time of export. Exporters can meet these commitments by paying in rials the difference between the buying and selling rate for the rial in the floating market at the time of export. Foreign direct investment inflows. Foreign exchange receipts can be sold on a no-questions-asked basis.	Imports are classified as authorized, nonauthorized, and banned. There are no quantitative restrictions on authorized imports. Imports should be preregistered with a Procurement and Distribution Center and a commercial bank. Imports which are not preregistered are subject to an additional 10 percent CBT tax. Public enterprises must have paid their taxes in the approved budget before they can access the market. Capital and Invisibles. Repatriation of foreign capital and dividends payments. Travellers are permitted US$1,500 per trip plus US$500 for each fellow traveller up to US$5,000 per passport. Bona fide medical and education expenses not covered at the basic and competitive exchange rates. Foreign currency accounts can be freely transferred abroad.
3. Free market rate (Market determined, approximately Rls 1,445-1470 = US$1)	Foreign exchange is bought and sold on a no questions asked basis.	Import payments are as in the floating exchange market. Foreign exchange purchased in the free market can be transferred abroad through the banking system. The total value of foreign currency bank notes that can be exported is US$5,000 without registration of prior importation.

exchange and trade system . First, there was a multiplicity rates with wide margins. Second, foreign trade and domestic prices were regulated and controlled by the authorities. Third, a number of goverment agencies were engaged in the approval process for the allocation of foreign exchange. The maintenance of an overvalued exchange rate for an extended period of time and multiplicity of rates with wide margins contributed to the emergence of a free exchange market and to the "dollarization" of the economy as predicted by currency substitution models reviewed in the preceding section. They also tended to undermine the functions and authority of the central bank and to erode the effectiveness of monetary and fiscal policies as instruments of macroeconomic management. Further, the allocation of foreign exchange by administrative means caused an inefficient allocation of productive inputs and raised the import intensity of production and consumption unrelated to relative market prices, leading to a structural weakness in the balance of payments and unsustainable rate of economic growth.

٢- *The new exchagne system*

On March 21, 1993 the authorities unified the multiple official exchange rates into a single rate. This unified rate is based partly on the free market rate and partly on the prevailing level of international reserves. The floating rate was initially set at a mid-point level of RLs 1,540 per U.S. dollar, implying a substantial depreciation. During this period the free market rate fluctuated between RLs 1,592 and RLs 1,815. Important changes in policy accompanied the exchange rate unification, including the elimination of the foreign exchange budget, gradual replacement of quantitative restrictions with tariffs, rationalization of the tariff structure, convertibility of the rial, and a balanced budget.

٣. *Analysis*

The analytic work on exchange rates surveyed in the previous section suggests the unsustainability of multiple exchange rate systems

in the long run, and can be used to interpret the historical evolution of the Iranian exchange system. The main reason for the breakdown of multiple systems is the existence of widespread leakages between different exchange markets. Countries employing multiple systems invariably develop detailed regulations regarding the type of transaction to be effected in each market, as in the Iranian system. Thus, administration becomes cumbersome, and delays in processing transactions are ultimately recongnized as a singificant economic problem. In addition, where export proceeds must be surrendered at a less depreciated exchange rate there are strong incentives for smuggling. Pressures may also develop to enact foreign exchange retention schemes, which allow exporters to benefit from the more depreciated exchange rate available for certain imports and other favored transactions.

There is also evidence of considerable leakages through fraudulent transactions between different markets, often involving the false invoicing of exports and imports. These activities shift transactions into the more depreciated rate markets, and tent to undermine the less depreciated rate the authorities would like to maintain for favored transactions. In addition, resources are expended in finding ways to profit from the exchange rate differentials. The balance of payments pressures that were supposed to be contained by the adoption of multiple rate systems thus reemerge, especially as capital outflows and smuggling lead to the depletion of official reserves. Private agents, being aware of limits on official reserves to defend fixed exchange rates, would accelerate the diversion of export receipts from the official to the free market, leading to a depletion of official reserves and a balance-of-payments crisis. Currency substitution away from the domestic currency also results in a loss of seigniorage for the government , which, for a given real fiscal deficit, may call for a higher rate of inflation achieved by monetary expansion and recurrent depreciation of the official exchange rate(s) or, under a crawing-peg regime, and increase in the rate of depreciation. Finally, foreign exchange rationing may have negative effects on output and employment by reducing the supply of intermediate goods to import-dependent industries, including export industries.

Thus, the most efficient approach to correcting these problems is to eliminate the restriction and let prices reflect fully the scarcity of

foreign exchange. Viewed in this context, the Iranian exchange rate reform adopted in March 1993 is a logical and necessary step to reverse the adverse effects of exchange and trade restrictions on the balance of payments, level of foreign reserves, real output, and the financial position of the public sector, including the state enterprises. The impact of unifying exchange markets on the state enterprises depends on change in the government's pricing policies and the extent of the enterprises' foreign liabilities. If product prices were unchanged and there were no subsidies, the profitability of state enterprises would decline and might even be ngative. The financial position of those state enterprises saddled with foreign debt, again assuming no subsidies, will deteriorate. Under these circumstances, recourse to bank credit and/or to the budget will be likely.

4. *Impact effect on the price level: an illustrative analysis*

According to the economic framework in the preceding section, the effect of exchange rate unification on the price level may be decomposed into two factors: (i) the immediate impact effect of the one-shot devaluation of the official rate(s) on the consumer price index; and (ii) the subsequent effects of financial policies associated with the exchange rate unification and the authorities' overall economic policy stance. The first factor contributes to an immediate rise in the price level. The second factor may or may not necessarily lead to subsequent inflationary pressure, depending on the stance of monetary and fiscal policies following the unification of the exchange markets.

This section presents a preliminary rough guess on the possible size of the impact effect of exchange rate unification on the consumer price index (CPI) in Iran under two alternative scenarios.1/ The analysis assumes that the prices of commodities previously imported at

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1- The weights of the essential commodities in the CPI are obtained from the latest Household expenditure Survey. The estimate for the share of total consumption using coupons and the free market, market prices and import prices are based on information provided by a staff study.

Table 3A. Impact of the exchange reform on prices of the essential consumer commodities (US$1 = Rls1648.5)

Commodities	CPI Weight (1990/91) (in percent) (1)	Coupon share (1982/83) (in percent) (2)	Rls/kg			Import price (US$/ton) (6)	Change in consumer price after exchange reform (in percent) (7)	Change in the CPI (in percent) (8)
			Coupon price (3)	Free market price 1/ (4)	Weighted average consumer price (5)			
Tea	0.60	95.5	600.0	4420	771.9	3000	540.7	3.26
Detergent	0.24	63.3	170.0	1916	810.6	650	32.2	0.08
Soap	0.19	56.5	250.0	1179	654.0	780	96.6	0.18
Cheese	0.93	80.0	220.0	3242	824.3	1500	200.0	1.86
Vegetable oil	0.73	87.5	65.0	2284	342.9	420	101.9	0.74
Lamb	3.86	50.0	750.0	3905	2327.4	2000	41.7	1.61
Beef	1.63	50.0	750.0	3905	2327.4	2000	41.7	0.68
Rice	3.95	30.0	100.0	810	597.3	303	-16.4	-0.65
Wheat	2.24	100.0	12.0		12.0	145	1891.9	42.46
Sugar	0.43	85.7	27.5	1105	181.6	385	249.5	1.07
Total	14.81							51.29

1/ staff estimates.

Table 3B. Impact of the exchange reform on prices of the essential consumer commodities, under continued coupon system (US$1 = Rls1648.5)

Commodities	CPI Weight (1990/91) (in percent) (1)	Coupon share (1982/83) (in percent) (2)	Rls/kg			Import price (US$/ton) (6)	Change in consumer price after exchange reform (in percent) (7)	Change in the CPI (in percent) (8)
			Coupon price (3)	Free market price 1/ (4)	Weighted average consumer price (5)			
Tea	0.60	95.5	600.0	4420	771.9	3000	540.7	3.26
Detergent	0.24	63.3	170.0	1916	810.6	650	32.2	0.08
Soap	0.19	56.5	250.0	1179	654.0	780	96.6	0.18
Sub total								3.52
Cheese	0.93	80.0	220.0	3242	824.3	1500	11.2	0.10
Vegetable oil	0.73	87.5	65.0	2284	342.9	420	11.9	0.09
Lamb	3.86	50.0	750.0	3905	2327.4	2000	11.9	0.46
Beef	1.63	50.0	750.0	3905	2327.4	2000	11.9	0.19
Rice	3.95	30.0	100.0	810	597.3	303	13.5	0.53
Wheat	2.24	100.0	12.0		12.0	145	0.0	0.00
Sugar	0.43	85.7	27.5	1105	181.6	385	12.4	0.05
Sub total								1.43
Total	14.81							4.96

1/ staff estimates.

the competitive rate but sold outside the coupon system have already adjusted to the free market prices. The first scenario assumes a full pass-through of the exchange rate unification. The pre-unification prices are calculated as weighted averages of the share of consumption using coupons and the share obtained from the free market. The results of the analysis are presented in Table 3A, which shows that the first-round impact of unification on the CPI would be about 51 percent on account of the essential commodities. Of these, the percentage contribution of wheat in CPI is the largest (42.5 percent), because it is fully subsidized and its subsidized price is very low.

The second scenario assumes that, as announced by the authorities, cheese, vegetable oil, lamb, beef, rice, meat, and sugar would continue to be provided through the coupon system and pre-unification prices and the free market prices of these commodities would rise by the ratio of the unified rate to the floating rate. Table 3B shows that the increase in CPI would be about 5 percent.

III. Concluding Remarks

Exchange restrictions have proved generally ineffective as means of balance of payments adjustment. The parallel markets that normally emerge, although socially beneficial in some respects, are nonetheless costly. By making capital controls ineffective, paralled markets facilitate evasion of the inflation tax, trade taxes, and other sources of government revenue, and tend to accelerate capital flight. Further, parallel exchange rates exert a substantial effect on domestic prices and play a major role in the transmission of macroeconomic policies. Developing countries have, therefore, aimed at an orderly unification of exchange markets in recent years.

The macroeconomic implications of the unification of exchange markets may be summarized as follows:

The immediate impact on the domestic price level is to raise it. Further price effects would depend on the stance of financial policies. The unification of exchange markets, without supporting macroeconomic policies, can be inflationary, not merely because of the initial depreciation of the official rate, for some domestic prices will have already reflected the more depreciated parallel rate, but also

because the inflationary pressure is often the result of expansionary financial policies following unification.

The effect on the balance of payments is to improve it, increasing the incentives for the production of traded goods. The output effects may or may not be contractionary in the short run, depending on the nature of the initial distortions in the economy. Currency depreciation may raise output even in the short run if an economy is characterized by severe imbalances and distortions. In the long run, depreciation should stimulate domestic activity by promoting exports and the production of import substitutes.

The fiscal impact of exchange rate unification would depend on the foreign components of revenues and expenditures. The fiscal effect also conditions the inflationary consequence of exchange rate unification. If the fiscal position worsens, for a given real fiscal deficit inflation may rise owing to the government's recourse to monetary financing of the deficit. On the other hand, inflation may slow the fiscal position improve with exchange rate unification.

For an application of the obove economic framework to the Islamic Republic of Iran, additional research is needed to assess the macroeconomic effects of unification. For example, beyond the quantitative assessment of the immediate impact on the price level, the medium-and long-run effects on inflation will require an assessment of the unification's implications for the financial position of the government, state enterprises, and the banking system, incorporating both the automatic adjustments mentioned in the paper as well as accompanying changes in fiscal, pricing, and monetary policies. The following important policy implication, however, has general applicability: A sustainable exchange rate unification strategy requires a simultaneous relaxation of exchange and trade restrictions, price liberalization, and appropriately tight fiscal and monetary policies.

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