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The Impact of Financial Crises on Labor Markets, Household Incomes and Poverty: A Review of Evidence

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I. Introduction

The East Asian crisis opened with a massive speculative attack on the Thai baht during May 14-15,1997. During the remainder of 1997 and 1998, substantial short-term capital outflows accompanied sharp GDP declines in Indonesia, the Republic of Korea, Malaysia and Thailand. Initial estimates, at least for Korea and Malaysia, indicate that GDP again began to rise early in 1999. A pattern similar in many respects to the East Asian case -- of short-term capital flight accompanied by declining incomes over a couple of years -- occurred in Mexico[1] and Argentina in 1995, and in 1994 in Turkey. (See Table 1).[2] In January 1999, a similar pattern began to emerge in Brazil.

This paper looks at how such crises impact labor market conditions, poverty and the inequality of incomes, drawing on evidence with respect to the East Asian and Tequila crises as well as experiences during several earlier economic crises.

Table 1. GDP Growth and Financial Account Balance

	Crisis Year	Years in Relation to Crisis						
		-3	-2	-1	0	1	2	3
		GDP Growth (%)						
Indonesia	**1998**	8.2	7.8	4.9	-13.7			
Korea	**1998**	8.9	6.8	5.0	-5.8			
Malaysia	**1998**	9.4	8.6	7.7	-7.6			
Thailand	**1997**	8.6	8.8	5.5	-0.4	-10.2		
Argentina	**1995**	9.6	5.7	8.0	-4.0	4.8	8.6	4.2
Mexico	**1995**	3.6	2.0	4.4	-6.2	5.2	6.7	4.8
Turkey	**1994**	0.9	6.0	8.0	-5.5	7.2	7.0	7.5
		Financial Account Balance (Billion US $)						
Indonesia	**1998**	10.3	10.8	-0.6	-10.3			
Korea	**1998**	17.3	23.9	-9.2	-8.4			
Malaysia [1]	**1998**	1.0	4.1	-3.3	-5.4			
Thailand	**1997**	12.2	21.9	19.5	-16.9	-14.6		
Argentina	**1995**	7.8	20.3	11.1	4.4	11.5	16.7	18.9
Mexico	**1995**	27.0	33.8	15.8	-10.5	6.1	19.3	17.3
Turkey	**1994**	-2.4	3.6	9.0	-4.2	4.6	8.8	8.6

Source: World Bank data

[1] Net, private, short term capital flow. Source: Economic Report, Ministry of Finance.

1. See, for example, Tornell (1999).

2. The precise year of crisis ought not to be interpreted too strictly in Table 1 or subsequent tables, since much can depend upon timing of events within a year.

Although the financial crises may prove relatively short lived, the associated drops in income have been substantial and perceptions of these declines have no doubt been exacerbated by the prior experience of rapid growth in most instances.[3] Concerns for impacts on poverty, both during these crises and perhaps over the longer run, are therefore very real.

To place the discussion in context, the following section first highlights some stabilization policy responses and macro-economic features of recent crises. Section III addresses labor market responses to the crises and Section IV then takes up issues of inequality, poverty and basic needs. The paper closes with a summary and some thoughts on policy lessons.

II. Stabilization Efforts and Some Macro Economic Responses

Faced with the dilemma of falling incomes and capital flight, the various countries hit by crises have not responded uniformly with respect to stabilization efforts. Some of these differences are reflected in Table 2.

Despite efforts to cut or postpone government development spending, government consumption declined far more sharply than GDP in Indonesia, Malaysia, Mexico and Turkey, in the face of tightening revenue prospects. Even in Argentina and Thailand smaller cuts in government consumption occurred, and in Korea there was at least a marked decline in growth of such spending. The distributional and poverty effects of these cuts may obviously differ quite substantially, depending upon which programs are cut, and some evidence with respect to this is presented in Section IV.

Despite spending cuts, budget surpluses turned to deficits in Korea, Malaysia, Thailand and Mexico though these were only mildly expansionary relative to GDP.[4] In contrast, expenditure cuts in Turkey were actually sufficient to reduce the persistent deficit relative to GDP in both 1994 and 1995.

In Malaysia, Argentina (briefly) and Mexico the real supply of money and quasi money was cut in response to the crisis, and in Indonesia and Thailand (in 1998) the previous rapid growth in money supply was curtailed sharply. In contrast, Korea and Turkey both pursued a rapid expansion in real money supply.

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3. Note, also, that the short-run nature of crises does not imply irrelevance to production within a year or two. If a comparison is made between an economy which grows steadily at 5 percent a year, versus one which suffers a 5 percent decline for two years then returns to 5 percent growth, the latter has a level of production which is permanently 22 percent lower.

4. 1998 data for Indonesia are not yet available.

Table 2. Stabilization Policy Responses

	Crisis Year	Years in Relation to Crisis						
		-3	-2	-1	0	1	2	3
		Government Consumption Spending Growth (%)						
Indonesia	**1998**	4.4	4.2	-5.3	-27.1			
Korea	**1998**	3.5	12.2	4.2	1.8			
Malaysia	**1998**	9.9	-1.5	4.7	-15.0			
Thailand	**1997**	6.6	5.6	6.7	4.9	-4.6		
Argentina	**1995**			5.4	-2.8	-1.9	4.9	2.8
Mexico	**1995**	12.7	12.9	8.7	-14.6	-2.4	9.0	-0.1
Turkey	**1994**	12.1	7.6	8.8	-15.4	1.6	20.1	11.1
		Budget Surplus as Percent of GDP						
Indonesia	**1998**	2.2	1.4	1.4				
Korea	**1998**	0.3	0.1	-1.3	-2.9			
Malaysia	**1998**	0.9	0.7	2.4	-1.8			
Thailand	**1997**	2.8	3.2	0.9	-0.3	-2.8		
Argentina	**1995**	-0.0	-0.7	-0.7	-0.6	-1.9		
Mexico	**1995**	1.4	0.3	-0.7	-0.8	-0.5	-1.4	
Turkey	**1994**	-5.2	-4.2	-6.5	-3.7	-4.0	-8.6	
		Growth in Real Money Supply (%)						
Indonesia	**1998**	16.2	17.8	17.4	3.6			
Korea	**1998**	10.6	10.4	9.2	18.2			
Malaysia	**1998**	14.8	20.1	14.4	-6.4			
Thailand	**1997**	7.5	10.6	6.4	10.2	1.5		
Argentina	**1995**	29.6	32.3	12.8	-5.7	18.8	24.3	9.4
Mexico	**1995**	7.3	4.9	11.6	-2.4	-6.8	11.0	3.3
Turkey	**1994**	10.4	4.9	-1.3	19.0	8.3	20.5	6.3

Source: World Bank staff calculations.

Notes: Real government consumption spending is deflated to constant prices using the overall GDP deflator. Real money supply is the sum of money and quasi money over the consumer price index.

As indicated by the money market rates in Table 3, nominal interest rates rose. Nonetheless local currencies underwent massive depreciations against the US dollar and these overwhelmed high interest rates to leave dollar yields negative (except in Argentina where a currency board was maintained). In the countries where the largest depreciations occurred -- Indonesia, Turkey and Mexico-- consumer prices rose very rapidly, led by prices of tradeable goods. Indeed, in Mexico and Turkey rapid inflation followed over the next couple of years after the initial crisis (fed by an expansionary monetary policy at least in Turkey). The combined effect was a one year spike of high real interest rates for local consumers in Mexico, Turkey and Indonesia (in 1997), though milder increases occurred elsewhere.

Consumption smoothing may have relieved the impact of declining incomes for some households though the poor are typically, significantly less able to smooth their consumption.[5] However, as Table 3 shows, only in Indonesia did private consumption rise as a fraction of GDP during the crisis; in Malaysia and Mexico the propensity to consume actually fell. Some of the decline in consumption may reflect rational responses to changes in prices as a result of currency devaluation.[6] However, consumption smoothing also becomes more difficult when entire communities are in shock.

The combination of falling GDP and consumption, sharp devaluation and rising interest rates, was also typical of the economic crises, occasioned by macro-economic imbalances and ensuing structural adjustments, common in the 1980s. In Latin America, these crises and responses to them are known to have been associated with greater inequality of incomes. (World Bank, 1999). Labor market adjustments played a key role in this widening inequality in Latin America (Horton, Kanbur and Mazumdar, 1994). Towards understanding the impacts of the financial crises of the 1990s on household incomes and poverty, we therefore first turn to labor market responses in the following section.

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5. For a survey, see Alderman and Paxson (1994). Unfortunately, no systematic evidence appears to exist yet on consumption smoothing by different classes of households during the financial crises of the 1990s. As of the time of writing, results on Thailand are in preparation but not yet available.

6. On the role of price changes in consumption smoothing see Paxson (1993).

Table 3. Macro-Economic Indicators

	Crisis Year	Years in Relation to Crisis						
		-3	-2	-1	0	1	2	3
		Money Market Rate						
Indonesia	1998	13.6	14.0	27.8	62.8			
Korea	1998	12.6	12.4	13.2	15.0			
Malaysia	1998	5.8	7.0	7.6	8.5			
Thailand	1997	7.2	11.0	9.2	14.6	13.0		
Argentina	1995	15.1	6.3	7.7	9.5	6.2	6.6	6.8
Mexico	1995	18.9	17.4	16.5	60.9	33.6	21.9	26.9
Turkey	1994	72.8	65.4	62.8	136.5	72.3	76.2	70.3
		Exchange Rate Depreciation (%)						
Indonesia	1998	4.1	4.2	24.2	244.2			
Korea	1998	-4.0	4.3	18.3	47.3			
Malaysia	1998	-4.6	0.5	11.8	39.5			
Thailand	1997	-0.7	-0.9	1.7	23.8	31.9		
Argentina	1995	3.9	0.8	0.0	0.1	-0.0	-0.0	0.0
Mexico	1995	2.3	1.0	8.3	89.9	18.4	4.2	15.4
Turkey	1994	59.9	64.7	59.9	169.5	54.8	77.6	86.6
		Consumer Price Inflation (%)						
Indonesia	1998	9.4	8.0	6.7	57.7			
Korea	1998	4.5	4.9	4.5	7.5			
Malaysia	1998	5.3	3.5	2.6	5.3			
Thailand	1997	5.0	5.8	5.8	5.7	8.1		
Argentina	1995	25.4	10.7	4.3	3.1	0.0	1.0	1.0
Mexico	1995	15.6	9.8	6.9	35.0	34.4	20.6	15.9
Turkey	1994	65.5	70.3	66.5	106.2	88.0	80.3	85.8
		Real Interest Rate (%)						
Indonesia	1998	4.2	6.0	21.2	5.1			
Korea	1998	8.1	7.5	8.7	7.5			
Malaysia	1998	0.5	3.5	5.0	3.2			
Thailand	1997	2.2	5.1	3.4	8.9	5.0		
Argentina	1995	-10.3	-4.4	3.4	6.4	6.2	5.6	5.8
Mexico	1995	3.3	7.6	9.5	26.0	-0.8	1.3	11.0
Turkey	1994	7.3	-5.0	-3.6	30.3	-15.7	-4.1	-15.5
		Private Consumption/GDP (%)						
Indonesia	1998	61.6	62.4	61.7	70.4			
Korea	1998	54.7	55.8	56.3	55.7			
Malaysia	1998	47.9	46.0	45.3	41.5			
Thailand	1998	54.2	53.8	54.1	53.6	53.2		
Argentina	1995	84.9	69.8	69.9	69.1	70.0	70.7	70.7
Mexico	1995	71.8	71.9	71.6	67.1	64.9	64.1	68.2
Turkey	1994	68.1	67.3	66.4	67.2	70.3	69.3	68.3

Source: World Bank staff calculations: Real interest rate represented by money market rate minus CPI inflation; Exchange rate represented by period average against US $.

III. Labor Market Responses

The financial crises of the last decade, as with the structural adjustments of the previous decade, have brought sharp drops in aggregate demand combined with significant shifts in relative prices as local currencies depreciate. In terms of labor demand it is therefore useful to think in terms of two groups of employers; depreciation of the exchange rate results in rising relative prices of tradeable items, offering an incentive for employers to increase their labor demands in these sectors; on the other hand, producers of non-tradeable goods and services face two contradictory forces -- a decline in aggregate demand, offset by any tendency to switch demands towards non-tradeable items as their relative price declines.

Employers in contracting sectors have at least three margins along which they may adjust: cutting wages, employment or hours. When rapid inflation accompanies the crisis, nominal wages are quickly undercut, unless employers are willing and able to offer pay increments; with less inflation, stickiness in wages can provide some defense for those who manage to remain in employment. There is usually a reluctance to sever skilled or professional workers during a downturn, especially if the shock is expected to be short-lived. Indeed, implicit contracts between employers and employees, (particularly skilled workers and in the public sector), may place most of the burden on employers, as can explicit contracts resulting from collective bargaining, while voluntary or legally mandated severance agreements may also curtail lay-offs. However, such bankruptcies as occur during a crisis can render implicit or even explicit understandings moot.

A number of factors may constrain employers in the tradeable sectors from expanding employment. First, little hiring is likely to take place if the price increase is perceived as temporary. Second, the need to train new employees may lean in favor of expanded hours for existing workers. Third, and perhaps most importantly, constraints may exist on capacity expansion, including major difficulties in obtaining trade credit and working capital in the midst of a banking crisis. Fourth, when a contagion factor leads to a regional collapse, (as in East Asia), competitor countries also devalue, leading to lower world prices while regional trade demands decline, rendering export expansion difficult.

Meanwhile, employment of unpaid family labor is likely to expand to the extent that the opportunity cost of such employment falls. However, this effect may be offset in non-tradeable sectors by declining demand.

As some sectors expand, while others contract, willingness and ability of workers to make transitions into expanding sectors can be critical to the employment situation. Where such mobility also involves migration, the costs of reallocation may be significant. On the other hand, it is generally cheaper for members of rural families to return from town to the village, in the event of job loss, both because of any fixed costs involved in living separately and because of lower living costs in rural areas.

To the extent that workers are discouraged from seeking work by high unemployment rates, labor force participation may decline. Yet this must be balanced by family needs to defend their declining

incomes, which tends to encourage greater participation -- an added worker effect. In countries with significant immigrant work forces, encouraging return migration of foreign workers offers another mechanism for adjusting the overall size of the labor force. Once again, decisions both with respect to participation and with respect to mobility no doubt depend to some extent on perceptions of the depth and permanence of the crisis.

With this stylized picture in mind, what does the evidence show?[7] In this section, employment patterns and transitions are examined first, before turning to unemployment then wages and earnings.

1. Employment

Among the seven crises identified in Table 1, only in Korea did total employment fall commensurately with GDP. (See Table 4). Indeed total employment continued to rise through the crises in Indonesia, Mexico and Turkey while the decline in employment was less than three percent in Argentina, Malaysia and Thailand.

However, these comparatively small changes in total employment hide some important changes in employment composition. The direct impact and induced effects of crises have quite different effects on various sectors of the economy and the regional distribution of these effects can vary widely too. The result is that some workers who are made redundant succeed in finding a job (often at lower pay) in another sector or location, rather than joining the ranks of the openly unemployed. The pressures on displaced workers to accept work at reduced pay rather than remain unemployed depend upon the ability of their family to support them as well as perceptions of how permanent the crisis is likely to be. In low income countries, even short spells of unemployment can impose a harsh penalty on households, with the result that open unemployment is normally low even in quite severe crises. The question therefore arises as to which sectors manage to absorb laid off workers.

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7. Most of the evidence throughout this paper consists of comparing measures before, after and during crises, either of time series aggregates or of data from household surveys. A major short-coming of this approach is that other elements, besides the direct consequences of the crisis, may blur the picture. (See Datt and Ravallion, 1997). For instance, Indonesia suffered from the impact of El Nino simultaneously with the financial crisis. In principle, it is generally possible to isolate these separate effects, given sufficiently detailed data and careful statistical analysis. However, both appropriate data and analysis are rare. As a result, some analysts prefer to simulate the results of economic crises, using such devices as computable general equilibrium models. Such simulations have the clear advantage of being able to isolate effects of specific components of the crisis, though typically simulation models do not fully reflect many nuances of real markets and institutions.

Table 4. Employment: Structure and Growth

		Employment Share %	Employment Growth (%) Years in Relation to Crisis							
			-3	-2	-1	0	1	2	3	4
Indonesia	Total		2.4	4.5	1.8	2.7				
1998	Manuf.	12.9	7.0	-0.6	4.1	-9.8				
	Agric.	40.7	7.5	-0.4	-4.7	13.3				
	Constr.	4.9	-5.6	6.7	10.7	-15.8				
	Com Srv	14.7	-11.3	9.1	8.0	-1.4				
	Other	26.8	0.9	14.0	6.8	-1.9				
Korea	Total		2.7	1.9	1.4	-5.3	1.4			
1998	Manuf.	21.3	1.7	-2.0	-4.3	-13.0	2.8			
	Agric.	10.5	-6.3	-5.2	-3.6	4.0	-5.3			
	Constr.	9.5	6.7	3.8	1.8	-26.4				
	PubAdm	3.1	1.7	-1.1	1.6					
	Other	55.6	4.9	5.1	4.7	-4.3	2.3			
Malaysia	Total		4.1	5.3	4.6	-2.5	1.7			
1998	Manuf.	26.9		10.0	6.5	-4.1	4.0			
	Agric.	16.7		-0.1	-1.6	-4.6	-0.1			
	Constr.	9.9		11.0	10.1	-7.6	-0.7			
	Gov Srv	9.9		0.2	0.2	0.2	0.2			
	Other	36.6		5.0	6.2	0.3	1.8			
Thailand	Total		-0.2	1.3	-0.9	2.9	-2.8			
1997	Manuf.	13.4	-2.8	13.7	-1.0	-1.0	-2.4			
	Agric.	50.0	-1.6	-5.7	-4.7	3.5				
	Constr.	6.7	15.1	8.7	17.7	-7.0				
	Com Srv	12.7	5.2	6.8	-0.7	6.1				
	Other	17.1	-1.6	10.9	5.1	5.7	-2.4			
Argentina	Total		2.7	0.7	-1.2	-1.7	1.9			
1995	Manuf.	16.7	0.8	-11.6	6.6	-6.9	-0.1			
	Ag+Min	1.3	-21.0	38.6	-13.4	2.2	16.0			
	Constr.	8.6	-7.5	-4.5	25.4	-8.8	3.8			
	PubAdm	7.8	12.8	-16.8	5.8	9.4	6.4			
	Other	65.6	3.7	6.3	-6.1	-0.9	1.2			
Mexico	Total		4.2	4.1		1.6	4.0	5.9		
1995	Manuf.	15.7		2.8		0.9	11.8	8.9		
	Agric.	26.5		3.7		-4.0	-2.9	13.8		
	Constr.	6.1		0.2		-1.6	-1.2	-1.8		
	PubAdm	4.2		-0.5		0.0	22.9	0.8		
	Other	47.4		5.0		5.4	3.9	2.7		
Turkey	Total		-2.5	2.6	-0.3	2.5	4.8	1.5	-4.1	
1994	Manuf.	15.1	-7.8	20.4	-8.6	-0.6	-1.2	6.3	14.9	
	Agric.	43.4	-1.1	-3.7	-3.0	4.4	13.3	-2.6	-17.5	
	Constr.	5.8	5.9	8.7	8.3	4.4	0.3	9.4	-2.0	
	Com Srv	11.2	-4.4	-6.3	6.1	-0.8	-2.9	6.7	2.6	
	Other	24.5	-2.5	8.1	6.1	1.9	-2.5	2.9	7.2	

Sources: ILO Yearbook of Labour Statistics and World Bank data.

Note: In Korea in 1998 and 1999 and in Thailand in 1998, 'Other' refers to total minus manufacturing and agriculture only.

Two types of evidence exist. The first examines which sectors actually offer expanded employment during a crisis. It should however be noted that the mere fact that employment in certain sectors expands is no guarantee that these sectors are absorbing individuals laid off elsewhere, for we know that in some contexts labor force participation can also expand during a crisis— as a family strategy to maintain earnings as wage rates of some members fall. For instance, labor force participation rates have risen in Indonesia among adults ages 15-24, as enrollment rates in school have declined among teenagers since the advent of the recent crisis, though participation has declined among older groups. (Poppele, Sumarto and Pritchett, 1999). In contrast, in Thailand, labor force participation declined from 1997 to 1998 in both rural and urban areas, for both men and women.[8] Nonetheless, any sectors in which employment expansion occurs are helping to reabsorb displaced workers either directly or indirectly by reducing slack in the overall labor market. The second type of evidence traces employment transitions among individuals, using either panel data or recall information. Only a small number of the latter studies exist, and to these we shall turn after reviewing sectoral changes in employment.

- *Sectoral changes and employment status*

In each context in Table 4 (except Turkey) employment in construction fell as confidence, credit and investment levels dropped. Moreover, with the exceptions of Mexico[9] and again Turkey, significant declines in manufacturing employment occurred as the corporate sector was hit by rising costs of imported materials, difficulties in obtaining credit, and the burden of indebtedness in foreign currency denominated instruments.[10] Nonetheless, employment cuts in manufacturing were generally lower than the decline in manufacturing production (except in Korea); in Mexico and Turkey, for instance, manufacturing employment remained roughly constant despite drops in production of some 5 and 6 percent respectively.

Table 4 also includes measures of employment growth in Community, Social and Personal Services, in Public Administration and Defense, or in Government Services for each country. Despite the cuts in government consumption spending, already noted, any employment cuts in these areas were either small or none occurred; in fact in Argentina rapid expansion of employment in Public Administration continued through the crisis. This is a general point to which discussion returns when social spending patterns are considered later in this paper.

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8. See Siamwalla (1998). However, Atinc and Walton (1998) cite informal evidence of a rise in labor force participation of women and children, with rising child prostitution, begging and gleaning garbage sites.

9. Employment data are not available for Mexico in 1994. The growth of employment reported for 1995 therefore refers to the annual average over a two year period. The resultant 1995 experience in Mexico contrasts with the 1982 debt crisis in Mexico when employment declines in manufacturing were relatively precipitous.

10. The ability of different countries to turn around the decline in manufacturing employment in the ensuing years has varied widely. In Chile after 1982, Malaysia after 1985 and Mexico after 1995, manufacturing GDP grew relatively quickly and so did employment while real wage growth remained low. In contrast Mexico in the early 1980s suffered the worst of both worlds with declining real wages and sluggish employment growth as overall GDP growth remained low.

It is notable that employment in agriculture expanded in several contexts as employment in manufacturing and construction contracted. This was a particularly important factor in Indonesia where agriculture already provided more than 40 percent of employment in 1997, then grew by over 13 percent in 1998. Smaller expansions in agricultural employment occurred also in Korea, Thailand (at least in 1997)[11] and in Argentina (from a tiny base) and Turkey with a one year lag. Such expansions in agricultural employment would be consistent with a sharp depreciation of the real exchange rate which raises the relative price of tradeable, agricultural products.[12] Thus, of the Mexican debt crisis in 1982, Lustig (1992, p. 74) notes, "agriculture seems to have a life of its own in terms of output performance; it does not follow the general pattern. For example, during the severe economy wide contraction in 1983, agricultural output grew ... Real devaluations and attempts to align agricultural prices with world prices contributed to an improvement in agricultural prices". How quickly farmers are able to adjust production to these new price incentives clearly depends very much upon the crop cycle. Moreover, ability to respond may be affected by other external factors, such as the incidence of favorable weather conditions in Mexico from 1983-85 as opposed to the drought in South East Asia in 1998 and parts of Sub-Saharan Africa in the 1980s,[13] or outbreaks of violence, as in parts of Indonesia in 1998. (Poppele, Sumarto and Pritchett, 1999).

The consequences of various crises for non-tradeable service sectors appear to be mixed. Sectors with strong links to the industrial sector — such as transport — appear to be hurt badly, as is the financial sector. In contrast, the consequences for non-tradeable consumer goods and services may be mixed. Certainly urban expenditure levels normally decline precipitously, but some substitution may occur from increasingly high priced imports to domestic goods and services. Moreover, as the incomes of affluent households fall they may actually switch into buying domestic rather than imported goods. Perhaps as a result of this ambiguity, only in Mexico does a clear pattern emerge of an increase in employment in 'other' services through the 1995 crisis.

Besides changes in the industrial mix of employment, the change in total employment may also mask other shifts in employment status. The Thailand Labour Force Survey data actually indicate hardly any change in the magnitude of self-employment or unpaid family work, either in urban or rural areas,

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11. The Thailand Labour Force Survey shows that employment in agriculture fell in February 1998 compared to February 1997, however much of the work in February 1998 was harvesting the crop planted before the rise in rice prices from devaluation of the baht in 1997. See Siamwalla (1998). Unfortunately, more generally, alternative data series offer contrasting pictures with respect to agricultural employment in Thailand.

12. In contrast, lack of credit and access to imported materials often seem to constrain the ability of manufacturers to respond quickly to devaluation of the currency. In East Asia in 1998, this effect has been exacerbated by the simultaneous collapse in regional markets.

13. On Gambia see Dorosh and Lundberg (1996); for Niger see Dorosh, Essama-Nssah and Samba-Mamadou (1996). Simulation results suggest that real depreciation of the FMG indeed encouraged agricultural production for export in Madagascar, following the foreign exchange crisis in the early 1980s. (Dorosh, 1996). On the other hand, in Cameroon in the second half of the 1980s, agricultural output suffered major real declines as world commodity prices deteriorated; the rest of the economy sank into a deep recession, attributable in part to strong forward and backward linkages from the agricultural sector, but simulations indicate that the initial decline in agriculture was exacerbated by the tying of the CFA to the French franc. (Subramanian, 1996).

from 1996 to 1998, though in the rural areas there was a slight rise in both categories of employment among men, offset by a similar decline among women. (Siamwalla, 1998). Similarly, the National Urban Employment Survey in Mexico records only small absolute increases in the role of 'self-employed workers with unpaid family workers' and of 'unpaid family workers' from 1994 to 1995, though these represent large proportional expansions from a small base. In Korea too, there does appear to have been a rise in the number of unpaid family workers from 1997 to 1998, though the magnitudes are unclear. (Atinc and Walton, 1999)

In Indonesia, wage employment fell from 1997 to 1998 both in urban and rural areas among men, offset to some extent by an expansion in both self-employment and unpaid family work (from a low base in 1997), though total employment rates did fall among men. (See Table 5). Among women residing in urban areas in 1998, the overall employment rate was lower in 1998 than in 1997 as both wage employment and self-employment rates declined, though an expansion in family work did occur. However, among women residing in rural areas in 1998, the employment rate (and labor force participation) was actually higher than in 1997 as both self-employment and family work among rural women expanded. Presumably much of this expansion in employment among rural women was in agriculture, and this adaptation played an important role in smoothing rural household incomes, to which we shall return.

Table 5. Employment Status in Indonesia

		Employment Rate 1997				Growth in Employment Rate 1997-98			
		Any work	Wage sector	Self-employ	Family worker	Any work	Wage sector	Self-employ	Family worker
Urban	Male	71.9	42.6	27.2	2.1	-3.1	-8.9	4.0	19.0
	Female	37.7	19.8	12.5	5.4	-1.9	-5.1	-2.4	9.3
Rural	Male	85.0	27.9	49.8	7.3	-1.2	-12.5	3.4	11.0
	Female	51.7	11.2	18.6	21.9	5.6	0.9	7.0	6.8

Source: Smith et al. (1999) using SAKERNAS data.

Evidence on employment transitions by individuals

The second, more direct type of evidence examines the employment transition of individuals during a crisis. Such evidence is comparatively rare. Unfortunately, it should also be noted that one can never be sure just how much turnover in employment status in any panel or recall data simply reflects error in measurement. However, it is not obvious that errors in measurement should be correlated with the state of the economy, so that comparisons of churning in the downturn and upturn phases (as is possible in the Mexican data discussed in this section) can be particularly informative.

Two rounds of the Indonesia Family Life Survey (IFLS) provide an invaluable view of the initial

impact of the 1998 crisis.[14] From these data it is estimated[15] that about 75 percent of those workers who lost their jobs in construction between 1997 and 1998 had found employment in another sector by 1998. The comparable figure for people previously employed in the government, finance or tourism sectors was 50 percent and in agriculture only 40 percent. Despite the very low rate of re-employment of those losing employment in agriculture, agriculture was the main absorbing sector (as is apparent from the employment data in Table 4). In general more churning occurred in employment status in the rural areas than in the urban sector, and shifts between wage and self-employment were more common among women than among men. (Smith et al., 1999, table 7). Only 41 percent of men and 50 percent of women who resided in rural areas in 1997, and were not then working, reported not working in 1998; most of the remaining women in this group became unpaid family workers or entered self-employment, whereas most men entered wage work.

In the case of Mexico in 1995, Licona (1999) also records significant amounts of churning between wage and self-employment in urban areas, based on two panel surveys from the third quarters of 1994 to 1995 and from 1996 to 1997. Job retention, as the crisis mounted from 1994 to 1995, was much higher among protected workers (with social security coverage or in government employment) than among unprotected workers. (See Table 6). Still, only some 77 percent of protected workers in 1994 reported being protected workers in 1995, which is five percentage points lower than retention among protected workers in the upswing from 1996 to 1997. Not surprisingly, in both time periods, transitions from protected to unprotected jobs proved easier than vice versa. However, switches in both directions represented a greater fraction of those changing status in the upswing as compared to the downswing: finding wage employment of either variety was difficult in 1994-95. By 1995, less than two-thirds of those reporting an unprotected wage job in 1994 reported having any wage employment by 1995. Of those changing status, the fraction entering some form of self-employment[16] was approximately equal in both periods. However, workers leaving unprotected jobs were more likely to enter self-employment than were those leaving protected jobs. Nonetheless, the net expansion in self-employment does not appear to have been large. In both the downswing and upswing some 25 to 30 percent of both protected and unprotected workers changing status reported leaving the workforce. However, the fractions entering unemployment in the downswing were approximately double the fractions in the upswing, (with protected workers being more likely to become unemployed, given job separation).

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14. IFLS2 was fielded just before the crisis and in IFLS2+ a sub-sample of the same people were interviewed again just following the peak of the currency depreciation in 1998. IFLS2+ covers seven provinces though it is designed to represent some 83 percent of the total population.

15. Results in this paragraph are based on a private communication from Duncan Thomas, for which we are most grateful.

16. Self-employment in Table 6 aggregates categories from Licona's paper to include employers, self-employed and family workers.

Table 6 Employment Status Transitions in Mexico: 1994-1997

Initial Employment Status	Employment Status One Year Later					
	Out of Labor Force	Unemployed	Protected Wage Worker	Unprotected Wage Worker	Self-Employed	Total
1994	Percent					
Unemployed	26.1	19.4	22.5	21.5	10.6	100.0
Protected	5.9	4.5	76.6	8.6	4.4	100.0
Unprotected	14.9	7.4	16.6	46.8	14.3	100.0
Self-Employed	16.4	3.6	5.6	12.4	62.1	100.0
1996						
Unemployed	21.3	12.7	25.4	28.4	11.9	100.0
Protected	5.3	1.9	81.6	7.9	3.1	100.0
Unprotected	15.3	3.2	21.0	46.7	13.6	100.0
Self-Employed	15.1	1.4	6.2	13.8	63.2	100.0

Source: Derived from Licona (1999).

Recall data on employment status transition of adults remaining in urban areas during the earlier, 1985 recession in Malaysia indicate that a large fraction of those leaving private sector wage employment left the workforce. (Lucas and Verry, 1999). In other words there appears to have been a high discouraged worker effect. Among the wage employees in manufacturing in 1984 who made a transition into other employment by 1986 the largest group had entered wage employment in the service sector. Less than half this number reported that they had become self-employed (mostly in services) by 1986. In contrast, a higher fraction of those previously employed for wages in the service sector in 1984 had made a transition into self-employment (almost entirely in services) by 1986. Of the construction wage workers in 1984 who had left this work by 1986, nearly 20 percent were unemployed and another 12 percent had left the labor force; nearly 25 percent had found wage employment in services and another quarter were self-employed (again almost entirely in services).[17].

17. In connection with Table 4, it has already been noted that reductions in government employment during financial crises are typically small or non-existent. Nonetheless, as part of the wider structural adjustments in Sub-Saharan Africa reductions in public sector employment have been significant. At least two of these cases have been examined to explore the employment dynamics of retrenched public sector employees. Within twelve months more than 40 percent of those leaving public service in Ghana in the mid-1980s had returned to full-time work, though this only rose to about half after two years. (See Younger, 1996, and his discussion of the difficulties in interpreting the transition data in light of truncation bias).Those who possessed two jobs prior to retrenchment did particularly well in the transition to full employment. Nonetheless, the retrenched public employees did suffer substantial income losses on average, particularly those who made a transition into self-employment in agriculture but on very tiny plots. As a result, poverty incidence among retrenched public sector employees doubled. In Guinea, 41 percent of employees retrenched from public service between 1985 and 1988 were not employed in 1992, with 60 percent of those not employed still in the labor force. "Even among those finding other work, a long duration of unemployment usually followed departure from the public sector, and some were earning less than in previous public sector positions". (Mills and Sahn, 1996, p. 227. It should be noted that the sample size available for this latter study amounted to only 94 employees retrenched between 1979 and 1990). However, there is some evidence to suggest that duration of subsequent unemployment may have been linked to levels of severance pay.

Migration.

Before leaving the general issue of employment transition, a note on migration responses is in order. Workers displaced from urban jobs must typically relocate to the rural sector to take advantage of any expansion in agricultural employment and associated activities (unless they were previously commuting to town). More generally, there is no guarantee that expanding activities will be located close to the homes of laid off workers, so willingness to migrate can be a critical component of employment transitions. In addition, displaced urban workers may well elect to rejoin any kin in the villages if only to avoid the additional costs of living in town. There is however very little systematic evidence with respect to internal migration in response to economic crises.

The crisis is known to have diminished migration to Bangkok from rural areas among unskilled workers, though not among the educated, and there are some indications of substantial reverse migration.[18] More significantly, the IFLS data for Indonesia indicate that a massive 6 percent of all prime age adults moved from urban to rural areas in just one year from 1997-98 (offset by half of that number moving in the opposite direction).[19] In other words net migration to rural areas in response to the crisis was certainly massive in Indonesia.[20]

In terms of international migration, the labor market impacts of the crisis in Malaysia were apparently mitigated in part by non-renewal of work permits for foreign documented employees, many of whom were previously employed in the construction sector. (Pillai, 1998). Korea also responded to the crisis by repatriating illegal foreign workers. (Park, 1998). Indonesia, on the other hand, has been a major supplier of migrant workers, especially to Malaysia, and the precipitous return of these migrants has undoubtedly exacerbated the downturn in the labor market in Indonesia. (Ananta et al., 1998).

2. Unemployment

Despite the fact that the decline in total employment has generally been muted in relation to the main impact on manufacturing, open unemployment rose in the year of crisis in each case in Table 7, with the exception of Turkey. In Korea and Malaysia the unemployment rate had reached 8.4 percent and 4.5 percent respectively by March 1999 but then declined to 7.2 percent and 3.3 percent by June. It is still too early to tell just how quickly the rise in unemployment will dissipate. However, following the 1985 recession in Malaysia it took four years to return to pre-recession levels while in Mexico following the debt crisis in 1982 it took only two years. Even in Chile after the very high

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18. See Siamwalla (1998), Atinc and Walton (1999) and Mahmood (1999).

19. Private communication from Duncan Thomas, for which we are most grateful.

20. Similarly, substantial reverse migration followed the oil price shock in Nigeria in the early 1980s and by 1989, following structural adjustments in Ghana, more people were living in villages who born in urban areas than vice versa, though it is difficult to tell how much of this resulted from the policies of adjustment See Lucas (1998).

unemployment in 1982, pre-crisis levels of unemployment had returned within three years.[21]

Table 7. Open Unemployment Rates

	Year of Crisis	Years in Relation to Crisis								
		-3	-2	-1	0	1	2	3	4	5
Indonesia	**1998**		4.1	4.7	5.4					
Korea	**1998**	2.0	2.0	2.6	6.8	6.3				
Malaysia	**1998**	3.1	2.5	2.5	3.2					
Thailand	**1998**	1.1	1.1	0.9	3.7	5.2				
Argentina	**1995**	7.2	9.1	11.7	15.9	16.3				
Mexico	**1995**	2.8	2.4	3.7	4.7	3.7	2.7			
Turkey	**1994**	8.4	8.0	8.0	7.6	6.6	5.8	6.9		

Sources: ILO Yearbook of Labour Statistics and World Bank data.
Indonesia 1997 and 1998: Islam (1999).

Open unemployment rates rose with the financial crises of the 1990s, but only in Korea and Argentina was the absolute rise really substantial. In part, the small increments to unemployment were made possible by cutting weekly working hours. Data from the 1998 Labor Force Survey for Thailand show a marked reduction in hours in 1998 compared to 1997 among both men and women, in rural and urban areas, with the largest impact on short-time work among urban women. (See Table 8). In the case of Thailand, mandatory severance pay appears to have encouraged employers to cut hours rather than lay off workers. In this sense, Thailand may be somewhat untypical, though mandatory severance terms are actually fairly common among urban, formal sector employers.[22] In Indonesia, the proportion of workers working less than 35 hours per week increased from 30.6 percent in 1997 to 34.3 percent in 1998. (Islam, 1999). Average weekly hours worked dropped, from 1997 to 1998, by about an hour in urban areas and two hours in rural areas, both for men and women in Indonesia, having been fairly steady for the previous decade.[23] In Korea average hours dropped from 46.6 to 46.0 per week, the shortening of the work week being more marked in manufacturing.

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21. The persistent and rising unemployment in Poland, following the 1990 transition crisis, may in part be attributable to the form of unemployment benefits, which have not linked duration of benefits to employment tenure. On the other hand, Ham, Svejnar and Terrel (1998) find that the shorter unemployment spells in the Czech Republic as compared to Slovakia are attributable to demographics and firm behavior rather than to differences in unemployment compensation schemes.

22. Although severance pay requirements and other job security provisions may possibly retard lay-offs in a recession, this may come at the cost of diminished levels of employment in better times. See Fallon and Lucas (1993).

23. Smith et al. (1999). In contrast, preliminary results from the 100 Villages Survey conducted in Indonesia show an increase in the fraction of adults working more than 35 hours a week from 49.4 percent in July 1997 to 56.9 percent in August 1998. See Poppele, Sumarto and Pritchett (1999).

Table 8. Hours of Work in Thailand 1997-98.

	Males		Females	
	1997	1998	1997	1998
Rural	Percent of Employed Persons			
0-19 hours	1.7	3.6	2.8	4.9
20-39 hours	13.5	16.9	19.0	20.5
40+ hours	84.7	79.5	78.2	74.5
Urban				
0-19 hours	0.9	5.2	1.1	8.6
20-39 hours	14.3	21.8	16.6	24.8
40+ hours	84.8	73.0	82.3	66.6

Source: Siamwalla (1998).
Includes employees, self-employed persons and family workers.

3. Wages and Earnings

Despite all of these adjustments the main crisis in labor markets was one of wages, rather than of employment and unemployment. (See Table 9).[24] In Indonesia and Turkey, the undermining of manufacturing wages by inflation in consumer prices was dramatic: real consumption wages fell by 44 and 31 percent respectively in a single year. Although the difficulties of the Banco de Mexico in rolling over government debt did not really emerge until December 1994, real consumption wages in manufacturing fell sharply during 1995 and again in 1996. Moreover, the latest available data show little sign of recovery nearly four years after the initial crisis in Mexico, though there has been no further decline after the first two years.[25] In contrast, in Argentina in 1995 the initial decline in real wages was small in relation to the drop in manufacturing output and more recent data are not yet available. Prior to 1997, real consumption wages in Korean industry rose rapidly. However, this growth ceased in 1997 then during 1998 wages dropped by nearly 10 percent. Relative to the consumer price index in Thailand, average, monthly, private sector wages also fell from 1997 to 1998, though by less than the decline in Korea. Moreover, even before Thailand's crisis started in 1997, real consumption wages had already fluctuated significantly, and the real consumption value of wages in 1998 remained above the level reported for 1994. Finally, the real wage decline in Malaysia was

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24. Note, however, that mean wages in manufacturing may present a biased picture of the change in wage of employees. For example if, during a recession, low paid workers are laid off first, then the average wage of those in work may decline by less than the real wage of a typical worker. See Levy and Newman (1989).

25. The data through 1995 refer to monthly wages as reported in International Financial Statistics. Average manufacturing wages from Hernandez Laos et al (1998) show significantly higher real wage growth through 1994, though the decline in real wage in 1995 was 13.5 percent according to this measure. After 1996, the measures refer to the average of monthly wages as reported by the OECD, with data for 1998 based on a comparison of the first ten months of 1998 relative to one year earlier. The measure in Hernandez Laos (1998) indicates a slightly deeper cut in real wage wages by 1996.

comparatively small in 1998 (as in the recession in 1985), though following very high real wage growth this nonetheless represented a challenge.

Table 9. Growth of Real Consumption Wages in Manufacturing

	Crisis Year	Years in Relation to Crisis							
		-3	-2	-1	0	1	2	3	4
Indonesia	**1998**			11.1	-44.0				
Korea [1]	**1998**	5.2	7.0	0.7	-9.8				
Malaysia	**1998**	20.9	4.4	5.9	-2.7				
Thailand	**1998**	10.3	-5.8	8.6	-6.3				
Argentina	**1995**	4.3	0.9	2.9	-4.9	1.0			
Mexico	**1995**	1.6	-1.1	-0.8	-18.5	-9.9	-1.2	3.1	
Turkey	**1994**	21.4	-15.9	-7.6	-31.5		16.8		

Sources: ILO Yearbook of Labour Statistics and World Bank data;
Indonesia: Islam (1999).
Malaysia: Ministry of Finance, Economic Report.
[1] Industrial sector.

Using the data on GDP, total employment and real wage changes from Tables 1, 4 and 9, it is interesting to compare magnitudes of wage and employment cuts in relation to GDP decline. In particular, Table 10 reports the simple ratio of responses in the year of crisis.[26] From the accompanying graph, the data clearly suggest the well-known properties of a wage-curve; those countries which suffered the deepest wage cuts in relation to GDP decline had smaller impacts on total employment. Of course, the number of observations is far too small to want to suggest a general property, nonetheless the pattern is suggestive of a potentially important trade-off which may have quite significant implications for distributional impacts of crises. [27]

26. For Thailand data refer to 1998.

27. In a simple hyperbolic regression of the wage elasticity, from Table 10, on a constant and one over the employment elasticity, the t-statistic for the coefficient on employment elasticity is -2.59 which is statistically significant at the 95 percent level. Riveros (1990) detects no such general patterns in urban areas of Latin America during the 1980s. Fallon and Lucas (1998), on the other hand find evidence consistent with such a trade-off in pooled annual, cross industry data in South Africa in the 1980s, though more strongly so among white employees. Hoddinott (1996) uses richer household survey data to demonstrate the existence of a wage-curve, trading off wage level against unemployment across urban areas in Cote D'Ivoire.

Table 10.Employment and Wage Elasticities with Respect to GDP

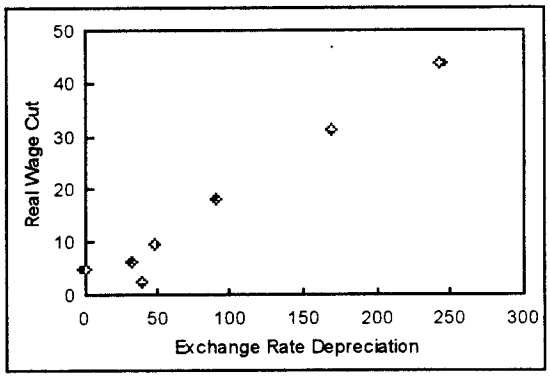
	Elasticities	
	Employment	Real Wage
Indonesia	-0.20	3.21
Korea	0.91	1.69
Malaysia	0.33	0.36
Thailand	0.27	0.62
Argentina	0.42	1.23
Mexico	-0.26	2.98
Turkey	-0.45	5.73

Source: Tables 1,4 and 9.

Such a trade-off makes sense in terms of labor demand: deeper wage cuts offset the shift in labor demand. It is also clear that countries which underwent the greatest currency depreciations had the largest cuts in real manufacturing wages. This is brought out clearly in Table 11 and the accompanying graph.

Table 11. Currency Depreciation and Real Wage Cuts

	Exchange Rate Deprec.	Real Wage Cut
Indonesia	244.2	44.0
Korea	47.3	9.8
Malaysia	39.5	2.7
Thailand	31.9	6.3
Argentina	0.1	4.9
Mexico	89.9	18.5
Turkey	169.5	31.5



Source: Tables 3 and 9.

However, it must be remembered that the employment cuts in Table 10 refer to total employment whereas the wage cuts refer to manufacturing alone. How indicative are wage cuts in manufacturing of those in other sectors of the economy during crises, and what happens to the distribution of wages?

Here, comparatively little seems to be known, with the exception of the Indonesia crisis and Mexico.[28]

In Indonesia, from 1997 to 1998, real wages per hour fell for men and for women, in rural as well as in urban areas:[29]

Decline in median daily real wage (%)
Indonesia 1997-98

	Men	Women
Rural	28.5	30.0
Urban	39.2	44.5

Source: derived from Frankeberg, Thomas and Beegle (1999).
Note: Uses IFLS price data to adjust for inflation.

Moreover in a non-parametric representation of the wage distribution, Smith et al. (1999) indicate a decline from 1997 to 1998 in the portion of both males and females earning all wage levels above their respective medians; the opposite holds for all levels below the medians. Taken together, these indicate very wide sweeping wage cuts in Indonesia, which, as one would expect, were certainly not confined to the manufacturing sector. Among male wage workers the wage declines were "slightly higher in urban areas, uniformly distributed across education groups and largest for the youngest" while "women in the middle of the education distribution have taken the biggest hit as have younger women." (Smith et al., 1999, p.13).

It is also interesting to note from the IFLS data, that the relative decline in urban, as compared to rural wages, was greater among both men and women with initially lower wage levels in 1997. For those with higher initial wages, the rural-urban declines were approximately equal. Given the massive exodus to rural areas (already noted) and that wage earnings of less-skilled workers in rural areas are derived largely from agriculture, the relatively small decline in unskilled wages in rural areas thus presumably speaks to the expansionary effects enjoyed by agriculture, as the exchange rate depreciated.

Nonetheless, real wages of unskilled workers in rural Indonesia did decline, while self-employment earnings of men in rural areas (again largely in agriculture) remained largely unaffected, in real terms, at all levels of earnings.[30] This combination in rural areas means that earnings of unskilled, agriculture laborers declined while earnings of self-employed farmers (especially net sellers of rice) grew, which

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28. In Mexico, following the crisis in the early 1980s, the gap in wages between skilled and unskilled workers widened steadily over the next decade. However, at least a part of this phenomenon may be attributable to removal of high protection from relatively unskilled labor intensive industries, rather than to any direct impact of the 1982 crisis. In the transition in Russia, wage inequality has widened sharply, as state sector pay has fallen relative to the private sector, and the young have gained relative to the less-adaptable older workers. (See Brainerd 1998 and Bystrova 1998). In South Africa, African workers proved significantly less able than did white workers to defend their real earnings from the unanticipated inflation which often accompanies crises. (See Fallon and Lucas, 1998)

29. See the SAKERNAS data as reported in Smith et al. (1999) Table 2. See also, Papanek and Handoko (1999).

30. Smith et al. (1999). Note, however, that the self-employment, hourly earnings of women in rural areas did decline.

has strong implications for poverty and income distribution effects to which we shall return. In contrast, competition in the urban labor market, presumably combined with declining demands, resulted in reduced earnings in self-employment in Indonesia.

Similarly, in urban Mexico, Licona (1999) records a drop in real monthly earnings, from the third quarter of 1994 to the same quarter in 1995 as follows:

Percent decline in real earnings
Urban Mexico 1994-1995

Protected wage workers	19.5
Small family businesses	23.3
Unprotected wage workers	25.7
Employers	35.8
Single self-employed workers	46.4

In other words, in this context there is some overlap between cuts for wage earners and those for the self-employed; workers in small family businesses fared better than unprotected workers, but less well than protected workers, while single self-employed workers suffered most.

IV. Household Incomes, Poverty and Basic Needs.

To gain some insights into the distributional impacts of crises, it is necessary to proceed beyond the examination of labor market responses alone. A natural point with which to start is the evidence on what happened to inequality in household incomes and to poverty incidence. This is followed by some additional considerations and evidence on changes in social spending and basic needs.

1. Poverty and Inequality

Changes in overall inequality, as measured by the change in Gini coefficient from 1997 to 1998, have apparently been minor in East Asia. (See Table 12). This may seem somewhat surprising, given the magnitude of changes that occurred and the prior experience of other countries with shifts in inequality during economics crises and subsequent structural adjustment.[31] In particular, as noted in Section II, inequality in Latin America clearly increased during the crises of the 1980s. On the other hand, Sahn, Dorosh and Younger (1997, p.251) present simulation results of structural adjustment in Sub-Saharan Africa which "obviously diverge from the widely held view that the poor

31. One reason for the lack of change in Gini coefficients reported in Table 12 may be the very short, one year interval over which the differences are measured. (Some of the changes in Latin America refer to slightly longer periods)

disproportionately bear the costs of adjustment".[32]

Table 12. Poverty Incidence and Gini Coefficients

		Poverty Incidence			Gini Coefficient
		Overall	Urban	Rural	
Indonesia	**1997**	11.0	9.2	12.4	38.0
	1998	13.8	12.0	15.2	37.0
	1998 [1]	19.9	15.8	23.0	
Korea	**1997**	2.6	7.5		27.9
	1998	7.3	10.0		28.5
	1998 [2]		22.9		
Malaysia	**1997**	8.2			49.6
	1998	10.4			49.8
Thailand	**1997**	9.8	1.2	11.8	47.7
	1998	12.9	1.5	17.2	48.1

Sources: Indonesia: Poverty: Frankenberg, Thomas and Beegle (1999).
Gini: World Bank staff calculations.
[1] Refers to deflation according to price data from IFLS2+
Korea: Kakwani and Prescott (1999).
[2] Fourth quarter. (Other urban data refer to first quarter).
Malaysia: World Bank staff calculations.
Thailand: Kakwani (1999).

There may be good reasons to expect different income distribution effects of similar crises and adjustments in typical middle income versus lower income countries. Bourguignon, de Melo and Suwa (1991, p.359) find, from simulations, that "in the standard adjustment package, inequality increased significantly for the Latin American archetype but decreased significantly for the African archetype." Among the reasons for these contrasts are: greater formal sector real wage rigidity and

32. Sahn, Dorosh and Younger find: that devaluation has a large impact on reducing inequality by stimulating the tradeable goods sectors; liberalization leads to significant loss in rents for the rich; and "fiscal policy reforms have been less dramatic than exchange rate changes" (p.248) though loss of social services and public sector retrenchment have been politically charged, the latter hurting relatively higher income groups. Despite these simulation results, Demery and Squire (1996) conclude, from an examination of household survey data, that inequality increased in Sub-Saharan Africa during the structural adjustments of the 1980s. Demery and Squire attribute the declines in poverty (despite sharper inequality) to enhanced growth, though the poorest of the poor failed to benefit from the resultant growth. It seems the contrasting results from these two approaches may stem from changes in external factors (such as weather and the terms of trade) which complicate comparisons from household surveys but are absent from simulation models.

hence higher unemployment in the Latin American archetype exacerbates inequality;[33] on the other hand the incentives provided to agriculture and dependence of the poor on agriculture in the African archetype narrows income inequalities.

On this stylized basis, the deep wage cuts in Indonesia, Mexico and Turkey, combined with relatively stable employment should have aided in sustaining equality through the crisis; in contrast, the relatively high rates of additional unemployment and low wage cuts in Korea, Thailand and Argentina might have exacerbated inequality. Moreover, in four of the seven crisis countries considered here -- Indonesia, Thailand, Mexico and Turkey -- employment in agriculture represents more than 25 percent of the total (see Table 4) and in Malaysia the figure is nearly 17 percent. Agriculture is important and the poor are heavily dependent on agriculture (directly or indirectly) in each of these.[34] Bourguignon, de Melo and Suwa's stylization of low income, agricultural economies would suggest the currency depreciations in these countries ought therefore to have narrowed income inequality.

Indonesia meets both criteria for movement toward greater equality, and it is interesting to note that this is precisely what the IFLS data show (in contradiction to the Gini coefficients reported in Table 12); Thomas et al. (1999, Figure 3) show a Lorenz curve of per capita expenditures for 1998 lying everywhere significantly closer to the diagonal than in 1997. Nonetheless, Thomas et al. (1999) estimate that both the top and bottom quartiles of households suffered more relative to households in the middle in terms of declining per capita expenditure from 1997 to 1998, and that within the bottom quartile the poorest lost most. In contrast, in Thailand there is evidence of at least a weak redistribution of incomes from the middle classes to the rich.[35]

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33. This general proposition may prove sensitive to which workers become unemployed. For instance, in both Indonesia and Mexico some of the evidence suggests that higher skilled workers may have been likely to enter unemployment, given job separation.

34. In Indonesia in 1993, 87 percent of the poor are estimated to have been in rural areas; 65 percent of the rural poor reported self-employment in agriculture as their principal source of income and an additional 16 percent depended mostly on agricultural wages. (Mason and Baptist, 1996). In Thailand in 1996, 75.2 percent of the poor are estimated to have lived in rural areas, where the decile of households with lowest incomes derived roughly 30 percent of their incomes from farming and a further 20 percent from wages. However, in rural Thailand, even the richest decile of rural households derived about a quarter of their livelihood from farm income. (Siamwalla, 1998). Estimates for Mexico in 1984, soon after the impact of the debt crisis, show 72.5 percent of households in the lowest decile of incomes living in rural areas; two-thirds of income for this poorest decile were derived from agriculture. (Lustig, 1992). In Malaysia in 1987, the lowest decile of rural households derived more than half of their incomes from agriculture, whereas the top decile had almost entirely diversified out of agriculture (Lucas and Verry, 1999). More generally,see Lipton and Ravallion (1995) and sources cited therein.

35. There appears to be almost no direct evidence on the distributional consequences of windfall losses and gains to owners of property in declining and expanding sectors during an economic crisis. Given that organized industry typically suffers the major impact we can expect the principal losses in property incomes to fall upon the urban elite. However, middle income groups with property in small scale urban retail and other service activities may also lose. To the extent that agriculture expands, rural land owners may however prove to be major gainers. A fuller understanding of the distributional consequences of these shifts requires information not only about the magnitudes of sectoral profit shifts but also of the ownership structure, including the extent to which the elite pool their risks by owning property in a variety of sectors (or abroad). Household surveys offer poor instruments for collecting information on these issues and as a result we possess little hard evidence.

It appears that some households were able to smooth their incomes during the shock, by changing labor force participation and by increased reliance on transfers.[36] For instance, changes in labor force participation played an important role in income smoothing in Indonesia. The facts that women increased their labor force participation, and that many of these additional workers entered unpaid family work have already been noted. Smith et al. (1999) also estimate that from 1997 to 1999, the contribution of unpaid family workers to household incomes increased significantly. Quantile regressions on these changes by the same authors reveal important differences in these effects by income class. In urban areas, it is the upper income classes that benefitted from these changes; in rural areas it is the poor. Changes in labor force participation of women were thus quite important to income smoothing in Indonesia, both for the high income groups in urban areas and for the poor in rural areas. Frankenberg, Thomas and Beegle (1999, p.v.) note that in Indonesia during 1998, "Informal assistance from friends and family members is also important. About one quarter of households have received informal assistance. The median value of that assistance is considerably higher than the value of assistance from formal services." It seems unlikely that most of these transfers were received from the urban areas, since return migration to villages appears to have been the principal strategy of rural-urban migrants.[37] Rather, the IFLS data show that per capita expenditure has declined least in communities that are relatively better off. (Frankenberg, Thomas and Beegle, 1999). This latter finding may partially reflect consumption smoothing within better off communities, presumably resulting in greater inequality across communities.[38]

Certainly evidence from other contexts has indicated that the poor, in particular, may be less able to smooth their consumption. To the extent that interest rates rise during crises, borrowing to smooth consumption becomes more expensive. In practice many families turn to much less formal sources for borrowing funds than would be represented by the money market rates in Table 3. Little appears to be known about the impacts of crises on rates in these less formal markets. However, "A recent survey of micro-finance institutions found that deposits continued to rise in many [*during the recent East Asian crisis*], possibly because they were sounder institutions and rural savers were shifting out of smaller rural banks."[39] This could imply easier access to credit from such sources during a crisis, though recent evidence raises serious questions about whether even micro-credit institutions actually lend to poorer households in rural Bangladesh. (Rai, Topa and Amin, 1999). If this is true more

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36. There is some evidence consistent with private, inter-household transfers (remittances) from rural-urban migrants providing insurance for the rural family in times of crisis (such as a drought) though it seems that more of these transfers are received by comparatively well-off rural families. Lucas and Stark (1985) and Hoddinott (1994). However, In the context of semi-arid Indian villages, Kochar (1995) finds that changes in participation dominate additional remittances as an income-smoothing strategy during shocks.

37. Indeed a major caveat, common to most of the existing studies on consumption smoothing through risk sharing within communities, is precisely that what seems to be partial risk sharing may simply reflect shocks affecting anticipated income of sampled families as well as consumption of the wider community. See Deaton (1992) and Grimard (1997).

38. See, for example, Deaton (1992) and Townsend (1994). There are, however, some indications that the role of informal support within the family may be declining where the rising fraction of the elderly population is placing greater burdens upon the young in East Asia. See, for instance, Atinc and Walton (1999).

39. Atinc and Walton (1999) p. 27. Portion in parentheses added for clarity.

generally, then micro-credit institutions cannot be relied upon to enable the poor to smooth their consumption during a crisis.

Whatever the facts on income and consumption smoothing and changes in income inequality, it is not surprising to find that the incidence of poverty clearly rose significantly during the crises, though there is no simple association between the depth of cuts in GDP and the rise in poverty among the four East Asian countries in Table 12.

In Indonesia, the increase in overall poverty from 1997 to 1998 and whether the relative increase was greater or smaller in urban areas compared to rural areas, proves very sensitive to the inflation measure adopted. If the official (BPS) increase in cost of living is adopted to deflate expenditures the overall rise in poverty is not very dramatic and urban poverty increased relatively more. However, price data collected in association with the Indonesia Family Life Survey suggest a much higher rate of overall inflation leading to a sharper rise in poverty.[40]

Thailand experienced wide regional disparities in the poverty impacts of the crisis. In the Northern region of Thailand, the poverty rate actually dropped from 10.2 percent in 1997 to 9.2 percent in 1998, while in the North Eastern and Southern regions it appears to have risen dramatically from about 15 percent to 23.2 percent and from 8.6 percent to 14.8 percent respectively. In part, the poor performance of the Southern region may be linked to the fall in world rubber prices during the crisis. Large regional differences in per capita expenditure changes emerged in Indonesia too. These regional differences seem in large part to reflect whether the region was a net exporter of rice and hence benefitted from the currency depreciation, though another factor contributing to regional differences was the drought of 1997-98, which impacted various regions quite differently (resulting in wide spread fires and an ecological disaster in East Kalimantan, for instance).

This impact of currency depreciation on rural areas is generally mixed. Depreciation results in rising food-crop prices; for self-employed farmers, it then matters whether they are net buyers or sellers of food; the latter can be expected to gain, but the former may well be hurt. In the agricultural laborers market there are also off-setting forces; the rise in crop prices may translate into greater demand for labor, though labor supply typically increases both through higher participation and reduced urban migration. Meanwhile, agricultural wages are eroded by the rising cost of food.

In fact, the IFLS data indicate a greater relative rise in poverty in rural areas than in urban areas of

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40. See also, Levinsohn, Berry and Friedman (1999) who state in their abstract "What is clear is that the notion that the very poor are so poor as to be insulated from international shocks is simply wrong. Rather, in the Indonesian case, the very poor appear the most vulnerable."

Indonesia.[41] Similarly, in Thailand the rise in rural poverty was more severe than that in urban areas. (See Table 12). Note that in Indonesia this incremental poverty in rural areas is despite sustained real earnings of self-employed men, not only at the mean of self-employment earnings but across the board. It is also despite a greater decline in real urban wages than in real rural wages. A plausible explanation for the relative increase in rural poverty in Indonesia may therefore simply reside in a larger portion of rural households initially being just above the poverty line than of urban households. In Thailand, Siamwalla (1998) argues that there are not large numbers of landless laborers and that the poorest decile of rural households in 1996 derived more of their income from farming than from wage labor. In Thailand, the additional rural poverty presumably therefore fell largely upon net buyers of rice and those few households who were more dependent on wage incomes.

2. Social Spending, Basic Needs and Safety Nets

Although the East Asian countries widened their fiscal deficit targets from a position of relative austerity to counter recessionary effects of the crisis, real government expenditures fell. Moreover, despite postponing public investment expenditures, real government consumption spending fell or slowed in each of the financial crises in Table 2. Combined with the observation that little, if any cut occurred in government related employment (Table 4), this raises concerns with respect to social spending, public safety nets and basic needs more generally.

Health and nutrition

Three types of evidence may be considered in reviewing the impact of crises on nutrition and health: first, public spending on health; second, household spending on health and consumption of food; and third, direct measures of morbidity and weight loss.

Public expenditure on health as a fraction of total public expenditure fell in Indonesia in 1998, though in Thailand it rose. However, in none of the four cases in Table 13 did public expenditure on health change much relative to GDP, which means that in absolute terms it fell. In Mexico too public spending on 'health and labor' declined, in real terms, by 11.6 percent in 1995 and by a further 5 percent in 1996, though these cuts were less deep than overall cuts in social spending. (Lustig,

41. (See Table 12). The Indonesia Family Life Survey also provides an opportunity to examine poverty transitions during the 1998 crisis since a panel of households were interviewed before and after the crisis. "It turns out that, even during the crisis, many households transition into and out of poverty. For example, using the BPS inflation rates, of the 11% of the population who were poor in 1997, 31% were also poor in 1998. This means that two-thirds of the poor have exited poverty over the last year. Fully 19% of the population will have experienced poverty during the last two years although only one in six of them will have been poor in both years." (Frankenberg, Thomas and Beegle, 1999, p. 10). Either transitions out of poverty remain very high, even during a crisis, or these results reflect standard measurement errors associated with estimating poverty from any single survey.

1998).[42]

In Indonesia, use of health facilities, by both adults and children, fell dramatically between 1997 and 1998 as prices on inputs to private facilities rose sharply and stock shortages became common at public facilities. (Frankenberg, Thomas and Beegle, 1999). In Thailand, some particular concerns have been expressed in the context of health spending cuts with respect to any long term implications for the AIDS epidemic.(Siamwalla, 1998).

Table 13. Public Expenditure on Health and Education

	Public Expenditure on Health					Public Expenditure on Education				
	1994/95	1995/96	1996/97	1997/98	1998/99	1994/95	1995/96	1996/97	1997/98	1998/99
	As percent of GDP					As percent of GDP				
Indonesia	0.7	0.6	0.6	0.6	0.6	1.4	1.2	1.4	0.7	0.7
Korea	0.5	0.5	0.1	0.6	0.6	5.0	5.0	5.1	4.3	4.0
Malaysia	1.3	1.3	1.4	1.4	1.3	5.3	4.9	4.0	4.7	4.3
Thailand	1.1	1.1	1.2	1.4	1.3	3.4	3.3	3.1	3.4	4.2
	As percent of Total Public Expenditure					As percent of Total Public Expenditure				
Indonesia	3.2	3.4	3.3	3.1	2.8	6.7	6.7	7.7	3.9	5.2
Korea	2.0	1.8	2.1	2.2	2.1	19.3	19.2	18.5	15.6	14.4
Malaysia	5.5	5.5	5.9	6.2	5.6	20.0	21.8	20.9	21.4	21.3
Thailand	4.4	4.7	4.8	4.9	5.8	14.4	14.4	13.9	13.9	17.5

Source: World Bank staff calculations

There is less evidence on changes in household spending on health care during crises, though the Indonesia Family Life Survey indicates a small cut, from 1997 to 1998, in the fraction of households' budgets spent on health care in both rural and urban areas. Since the price of health care rose in the interim, this implies a real decline in private spending on health care. Meanwhile, the fraction of household budgets spent on food rose substantially: from 59 to 64 percent in urban areas and from 76 to 81 percent in rural areas. Moreover these changes in budget shares spent on food were largest for the poor, though the decline in budget share spent on meat was largest for middle income households.[43]

Of course, what ultimately matters is whether these changes in health spending and nutrition result

42. Real, central government spending on health and education rose from the early to late 1980s in the majority of countries receiving intensive adjustment lending. In both intensive lending countries and non-adjustment lending countries the fraction of central government spending on education and health rose on average during the 1980s. See World Bank (1992). Also, from the mid-1970s to late 1980s real government spending on health care per capita was cut in a number of African countries, but these cuts show little or no association with overall changes in overall spending. Rather the deepest cuts appear to be more closely associated with the existence of civil conflict. See Sahn, Dorosh and Younger (1997).

43. For further details see Frankenberg, Thomas and Beegle (1999).

in greater morbidity or even mortality. In Indonesia, the changes in health and nutrition status between 1997 and 1998 present a mixed picture. Self-reported health status actually improved, both among adults and children. Moreover, there was little difference in this improvement across income classes or between rural and urban areas. However, self-reported health status can be misleading, and it is therefore important to consider more direct measures too. Among children, neither height for age nor weight for height changed significantly and the proportion of children whose weight for height was more than two standard deviations below the median fell. On the other hand, there was a significant decline in mean body mass index (BMI) among adults and an increase in the proportion of adults in a body mass range considered unhealthy. "The fact that at the low end of the nutritional spectrum weight-for-height of children has improved, while the BMI of adults has decreased, suggests that in terms of energy intake, adults are bearing a greater share of the nutritional burden that the crisis has imposed than are children. This may reflect reduced intake by adults or increased energy output (e.g. working harder)."[44]

The limited evidence on health and nutritional impacts of crises is mixed. Public and private spending on health care do seem to decline, and where sharp food price increases occur nutrition levels may fall particularly sharply. The evidence on whether families react by trying to protect the nutritional levels of their children is mixed, despite the potential long term damage from malnutrition of children in particular. Where adults bear most of the reduction in nutritional intake this may limit capacity to work.[45] However, at least the evidence from Indonesia indicates no apparent short-term health effects of these changes, either for adults or children.

Education

In Mexico, government spending on education was cut by 9.7 percent in real terms during 1995 though further cuts in education spending were avoided during 1996. Public education expenditures also fell in relation to GDP when the crisis struck in Indonesia, Korea and Malaysia, but rose in Thailand. (See Table 13).

To understand the implications of such cuts for delivery of education clearly requires much more detailed information either on which inputs are cut (new school building, number of teachers, materials, university scholarships) or on educational outcomes. The Indonesia Family Life Survey

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44. Frankenberg, Thomas and Beegle (1999) p.33. In contrast, Teruel (1998) relates household expenditures to household composition in four separate years from 1984 to 1994 in Mexico, and concludes that during the crisis years women and children (especially girls) were deprived. Evidence from Cote d'Ivoire suggests that higher food prices during the stabilization program of the 1980s did result in increased malnutrition. (Thomas, Lavy and Strauss, 1996). In rural Bangladesh, during and after the floods of 1988, both landless and landowning families made substantial use of credit to smooth consumption and to protect nutrition of children in particular. However, the cost of borrowing was high (more so in some villages than others) and weight loss was greater among children of poor families than of higher income families. (Foster, 1995).In contrast, Hoddinott and Kinsey (1998a ,1998b), find a loss in growth in children ages 12-24 months, especially in poorer households, during a drought in Zimbabwe; moreover this height loss appears to remain permanent and meanwhile women (again especially in poorer households) lose body mass though men do not. See also Bhargava (1997).

45. See, for example, Thomas and Strauss (1997).

offers some interesting insights into the latter.

From 1997 to 1998 in Indonesia, enrollment rates declined and drop-out rates increased among children ages 7-12 and even more so among youths ages 13-19. Gender differences in these changes were not large. Among children ages 7-12 almost all of the change in both enrollment and drop-out rates occurred in rural areas, as children in urban areas continued almost universal enrollment in this age group. In contrast, the largest absolute declines in enrollment and increases in drop-out rates occurred in urban areas, among youths ages 13-19. However, controlling for differences in consumption levels of households, any differences between urban and rural areas are not statistically significant. In particular, the decline in enrollment rates was much larger among households in the lowest quartile of per capita consumption as of 1997, and almost all of the additional drop out occurred in this quartile. (Frankenberg, Thomas and Beegle, 1999).

Apparently such impacts of crises on decreased educational enrollment and increased drop out rates are not always observed. For example, in Mexico during the 1982 crisis, drop out rates from high school did increase slightly though from primary school the opposite occurred and both changes were part of longer term trends throughout the 1980s. (Lustig, 1992).

Even where drop out rates do rise during a crisis, it would be important to know whether these withdrawals prove permanent or if pupils later return to continue their education. Similarly, a decline in enrollment may reflect delayed entry rather than failure to ever attend school. Both dropping out temporarily and postponing entry can impose significant costs on life-time earnings[46], though this cost is much lower than the impact of permanent withdrawal from the educational system.

Social safety nets

In Mexico, social spending fell in real terms by 12 percent in 1995 and by a further 15 percent in 1996. Nonetheless, the Mexican government shifted remaining resources out of other anti-poverty programs to introduce a short-term employment program in 1995. It is estimated that half a million jobs were thus created, 70 percent of them in rural areas, paying 80 percent of the minimum wage. (Lustig, 1998).

The East Asian governments significantly increased the budgetary share of safety nets in response to the crisis. However, budgetary spending simultaneously fell and absolute levels of spending on safety nets are still low as a fraction of GDP. Korea had the largest proportional increase, with safety nets rising from nearly zero to five percent of the budget. In particular, since the advent of the crisis in 1998, the Korean government has expanded the coverage and budget allocation of their 'livelihood program'. The real value of benefits has been maintained for prior beneficiaries, but only some 7 percent of the new poor appear to be covered. As a result, the fraction of poor covered fell from 32 percent in 1997 to 17.3 percent in 1998 and was expected to fall again to 16.1 percent in 1999. A public workfare program has also been introduced, offering a wage rate below the going market wage. Applications have risen in parallel with the unemployment rate, but eligibility conditions have

46. See Jacoby (1994) and Glewwe and Jacoby (1995).

ruled out many willing to accept the lower wage. (Subbarao, 1999). In contrast, on-going programs in Indonesia frequently offer pay higher than the local going wage.[47] In Indonesia, public spending on safety nets rose from nearly zero to 3.6 percent of the budget, while in Malaysia, the safety net has held steady at 0.16 percent of the budget.[48]

To some extent cuts in public social spending may be off-set by increased private transfers. However, the limited available evidence on this indicates that private increments are far from sufficient to compensate for public cuts, even in normal times. (Cox and Jimenez, 1992). Moreover, during a crisis, urban migrants are hardly well-placed to increase their remittances home to off-set declining government transfer programs.

V. Summary and Conclusions

The dominant labor market effect of the financial crises of the 1990s was a cut in real consumption wages, rather than declining employment or even hours of work, though some unemployment certainly did emerge too. The cross-country experience reveals a strong association; the deeper the deprecation of the exchange rate the larger was the cut in real wages. The evidence also suggests that urban self-employment pay fell along with wages. However, a trade-off is strongly suggested by the experience of these crises: the deeper the cut in real wages in relation to declining GDP, the smaller was the loss in employment. Creating high levels of unemployment during a crisis may well prove regressive, widening the income distribution. The experience from the financial crises of the 1990s indicates that the price of avoiding this may be acceptance of currency devaluation and the associated loss in real wages.

In a few contexts, total employment actually increased during the crises, while in others overall employment declines were small in relation to the depth of GDP cuts. But this does not mean that changes in employment were negligible. In fact a great deal of turnover in employment accompanied the crises, with movements between sectors of production, and movements between formal wage jobs, more casual wage employment and self-employment. This churning was critical to the ability of the various economies to sustain, or even expand overall employment, revealing a considerable degree of flexibility in the labor markets. There is evidence to indicate that this flexibility may have been particularly high among less-skilled workers, amongst whom pressures to maintain family incomes presumably resulted in realistic lowering of reservation wages.

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47. See Atinc and Walton (1999).

48. In a broader survey of earlier adjustment crises, World Bank (1992), p.57 notes, "For fifteen intensive adjustment lending countries.. average spending under this category *{subsidies and other current transfers}* fell from 6.4 percent of GDP in the first half of the 1980s to 5.7 percent in the second half. All countries in this category except Pakistan registered a decline. As a share of total expenditure net of interest payments, average expenditure on subsidies and other current transfers fell from 31.9 percent in the first half of the adjustment decade to 38.8 percent in the second half."

The initial impact of the crises fell upon the corporate sectors and manufacturing employment in particular generally suffered, as did construction work. Unpaid work in family employment expanded, as the opportunity cost of such employment fell and the need to sustain family incomes rose. In Indonesia, at least, there was a marked rise in unpaid family work amongst low income women in rural areas and amongst higher income women in urban areas, and there is also evidence that such work increased in importance as a contributing factor to family incomes. In several contexts, where a larger agricultural sector exists, expansion in agricultural employment also played a significant role in sustaining total employment, resulting in return migration to the villages.

To some extent families proved able to smooth their incomes by increasing labor force participation (of women in particular) and by increased use of private transfers. However, only in Indonesia was consumption smoothing observed in the aggregate; indeed in several contexts the propensity to consume actually declined during the crises. Even in Indonesia, the limited available evidence suggests that any consumption smoothing was concentrated in communities that were better off prior to the crisis. More generally, it is commonly observed that poor families are far less able to smooth their consumption during idiosyncratic shocks, and this pattern may well be reinforced when entire communities are in shock. Tightening monetary policy to raise interest rates and defend the exchange rate raises the cost of borrowing to smooth consumption. Moreover, tightening monetary policy to raise interest rates can impose additional costs on net debtors and accelerate bankruptcies; indeed, by increasing expectations of financial defaults and of declining future output, tight monetary policies may actually weaken the exchange rate.[49] To the extent that the poor do borrow, it is from informal sources, but the links between formal and informal credit markets during crises remain largely undocumented, though there is some evidence that the loss of confidence in the formal banking sector led to significant transfer of funds to less formal institutions.

Although the initial impact of financial crises clearly falls on the urban, corporate sector, some of the evidence indicates that rural areas suffer a greater increase in poverty incidence than do urban areas, though there are wide regional disparities in these patterns within countries. Where agricultural employment is at all significant, the poor are concentrated in rural areas and depend heavily upon the agricultural sector for their livelihoods, either directly or indirectly. Currency depreciation results in rising prices of tradeable items, including food crops and there is evidence that small farmers can do very well from these effects. However, two groups among the rural very poor can be hurt by these price increments; the net buyers of food crops and landless agricultural laborers. The latter, in particular, not only face rising food prices but increased competition from new labor force entrants and returning urban (and in Indonesia even international) migrants.

Despite mildly rising budget deficits and attempts to sustain government consumption spending, real

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49. World Bank (1999).

cuts in social spending occur.[50] In part, this is forced by the political reality that cuts in public sector employment are not feasible (and in some contexts public sector employment even expanded during the crises). Cuts in health spending raise concerns for health care delivery and certainly in Indonesia use of health facilities declined markedly. On the other hand, no increase in self-reported illness occurred and no worsening of nutrition related problems among children: in Indonesia, adults appear to have borne the brunt of any nutrition related problems. This latter finding is not universal, however, and in Mexico in the series of crises in the 1980s girls may have been particularly deprived. Cuts in educational spending in Indonesia, combined with pressures to earn, resulted in lower enrollments and increased drop out rates from school, despite new public programs to avoid this, and once again the rise in non-enrollment was greater among poorer families.

Most countries have introduced a wide range of programs aimed at poverty alleviation. It may, however, be critical to evaluate the cost-effectiveness of some of these programs given potentially high start-up costs and the brevity of most crises. Targeting the new poor is made especially difficult by an apparent lack of regional correlation between pre-crisis poverty and additional poverty. Public works programs may prove to be one of the more cost-effective mechanisms, though some new public works programs have encountered typical difficulties of either offering wages above crisis levels or imposing eligibility criteria which preclude newly laid-off workers. (Datt and Ravallion, 1994). In general, it would seem that if poverty relief programs are cost effective, then they are worth mounting in more normal times rather than bearing the start-up costs during the initial phases of a crisis.

Most crises prove short. Nonetheless there are at least three sets of reasons why the short-term poverty impacts of economic crises may translate into longer term poverty effects even after the aggregate economy recovers from the initial shock. First, some workers who lose their main job during a crisis may not be able to re-enter a similar job during the recovery. This is probably particularly true of older workers, who tend to take major pay cuts or withdraw from the labor force on losing a job held for much of their lives. Second, some families forced to liquidate assets to smooth consumption through a shock may be unable to regain their former livelihood. Third, any declines in nutrition, health and continuity of schooling during a crisis may have long term consequences for labor productivity leading households into a poverty trap. These threats of the creation of a long-run poverty trap raise the specter that even a short-lived crisis may have chronic effects and is an area in which we sorely need evidence.

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50. Adopting a regression approach to examine the income consequences of the 1983 Philippine stabilization program, using quarterly data from 1980 to 1986, Blejer and Guerrero (1990, p.421) conclude that, "Reducing inflationary pressures, avoiding real exchange rate overvaluation, and attaining positive real interest rates all have a desirable incidence, while undiscriminating fiscal policies, with no attention to public expenditure composition, will probably result in a higher skewness of the distributional curve" and ".. the income distribution narrows when the economy shrinks and widens when it expands".

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