

Estimation of Financial Needs for Savings and Loans Program After Influenza Pandemic Disaster

1. Background information

a) Impact of the Influenza Pandemic

An *ex ante* assessment of damage and losses has been completed for a small-sized developing country located in the Latin America and Caribbean region after a influenza pandemic. In addition to the estimation of the number of persons that would acquire the flu and be absent from work, further estimates were made of the resulting decline in production in each and all sectors of the economy, the resulting decline in overall economic performance, the deterioration of the balance of payments, and the increase in the fiscal deficit. In addition, the assessment provides details of the number of individual persons included in the country's economically active population that will sustain temporary income decline due to the disaster.

Details of the results of the assessment are described in Annex 1 to this document.

b) National Strategy for Mitigation of Flu Pandemic Impact

As a result of the assessment, the affected government of the country, with support from the international community, has defined an overall strategy to mitigate the socio-economic impact of the flu pandemic. In addition to specific measures pertaining to the health sector, other strategies are defined to assist the financial position of households or families whose members have contracted the disease and have had to be hospitalized for treatment.

Among such measures, the government has decided to establish a special savings and loans program for affected households – whether they are credit worthy under normal banking standards or not – that would be activated to financially assist those that have had the disease.

The savings component of the program would provide incentives to all wage earners to start saving part of their income at attractively high rates that would be activated as soon as the official declaration of the flu pandemic is made by the appropriate health sector authorities.

The loans component would provide low rate loans to individuals that can show adequate proof of having been – or having had a family or household member – hospitalized with the flu.

The amount of the loans, minus the amount saved, should be of sufficient value to enable the affected persons to overcome the temporary decline in earnings (and increased expenditures) related to the disease. As soon as the health authorities declare that the pandemic is over, the program would be discontinued.

2. Scope of the Exercise

Workshop participants are to estimate the amount of financial resources that the affected government would require to invest in order to establish and operate the special savings and loans program, on the basis of the quantitative estimates of damage and losses produced in the assessment.

Working groups of no more than 10 workshop participants will be established for this purpose.

The following minimum questions should be answered:

- The amount of funds required for the savings and loans program, based on figures on the temporary income loss of wage earners as estimated in the damage and loss assessment, and
- The financial cost to the government arising from the payment of high saving rates and in the charging of low loan rates

Annex 1

Quantitative Information from the Damage and Loss Assessment

Table 1
Summary of Losses in all Sectors of the Economy
After the Influenza Pandemic
(Million \$)

Sector	2006		2007		Total	
	Pandemic Scenario		Pandemic Scenario		Pandemic Scenario	
	Moderate	Severe	Moderate	Severe	Moderate	Severe
Agriculture	128.33	180.45			128.33	180.45
Mining and Quarrying	216.09	306.30	43.22	61.26	259.31	367.56
Manufacture	738.28	1,046.50	147.66	209.30	885.94	1,255.80
Construction	260.75	369.60	52.15	73.92	312.90	443.52
Trade	550.18	779.87	110.04	155.97	660.21	935.84
Transport	450.77	638.96	90.15	127.79	540.93	766.75
Financing	212.08	300.62	42.42	60.12	254.49	360.74
Tourism	13,617.63	13,617.63	92,119.28	92,119.28	105,736.92	105,736.92
Health	4,421.33	9,275.21	884.27	1,855.04	5,305.60	11,130.25
Total	20,595.45	26,515.13	93,489.18	94,662.69	114,084.63	121,177.83

Table 2
Estimation of the Flu Pandemic Impact on GDP in 2006
under a Moderate Scenario
(Million Current Dollars)

	Without Pandemic 2006 GDP	Moderate Pandemic Scenario		
		Gross Losses	Value Added	Revised 2006 GDP
GDP	640,241		6,197.51	634,043
Agriculture, forestry and fishery	39,968	128.33	62.11	39,906
Mining and quarrying	28,903	216.09	79.95	28,823
Manufacture	81,935	738.28	226.65	81,708
Construction	25,356	260.75	70.14	25,286
Electricity and Water	67,247			67,247
Distributive Trade	132,858	550.18	367.52	132,490
Transport, Storage and Communications	81,314	450.77	224.94	81,089
Financing and Insurance Services	46,153	212.08	127.67	46,025
Real Estate and Business Services	40,481			40,481
Producers of Government Services	75,634			75,634
Miscellaneous Services	49,765	13,617.63	5,038.52	44,726

Table 3
 Estimation of the Flu Pandemic Impact on GDP in 2006
 Under Severe Scenario
 (Million Current Dollars)

	Without Pandemic 2006 GDP	Severe Pandemic Scenario		
		Gross Losses	Value Added	Revised 2006 GDP
GDP	640,241		6,680.65	633,560
Agriculture, forestry and fishery	39,968	180.45	87.34	39,881
Mining and quarrying	28,903	306.30	113.33	28,790
Manufacture	81,935	1,046.50	321.28	81,614
Construction	25,356	369.60	99.42	25,257
Electricity and Water	67,247			67,247
Distributive Trade	132,858	779.87	520.95	132,337
Transport, Storage and Communications	81,314	638.96	318.84	80,995
Financing and Insurance Services	46,153	300.62	180.97	45,972
Real Estate and Business Services	40,481			40,481
Producers of Government Services	75,634			75,634
Miscellaneous Services	49,765	13,617.63	5,038.52	44,726

Table 4
 Impact of the Flu Pandemic on the Balance of Payments in 2006
 (Million US\$)

	Non Pandemic 2006	Estimated Losses		2006 Revised	
		Pandemic Scenario		Pandemic Scenario	
		Moderate	Severe	Moderate	Severe
Goods Balance	-2,911			-2,953	-2,972
Exports (FOB)	2,016	8.78	12.43	2,007	2,004
Imports (FOB)	4,927	33.50	48.40	4,961	4,975
Services Balance	788	206.39	206.39	582	582
Income	-663	0	0	-663	-663
Current Transfers	1,670	66.52	94.29	1,603	1,576
Current Account Balance	-1,116			-1,431	-1,478

Table 5
Personal Employment Losses of Wage Earners due to the Flu Pandemic
(Million Dollars)

Sector	Wage Earning Labor Force	Average monthly wages, J\$	Number of monthly salaries lost		Value of Salaries Lost (Million J\$)	
			Moderate	Severe	Moderate	Severe
Agriculture, forestry and fishery	147,045	28,000	5,859	8,304	164.04	232.52
Mining and quarrying	3,370	72,644	134	190	9.75	13.82
Manufacture	56,194	19,900	2,238	3,173	44.54	63.14
Construction	69,988	30,380	2,788	3,952	84.70	120.06
Electricity and Water	2,810	24,512	112	159	2.74	3.89
Trade (Excl hotels & restaurant services)	141,751	17,136	5,647	8,004	96.76	137.15
Transport, Storage and Communications	30,943	26,452	1,233	1,747	32.60	46.22
Financing, Real Estate, etc	26,672	24,848	1,062	1,506	26.40	37.42
Community, Social and Personal Services	140,388	20,788	5,592	7,927	116.25	164.78
Others	4,000	41,312	159	226	6.58	9.33
Total (Excluding Tourism)	623,191		24,824	35,188	584.37	828.34

Table 6
Number of days absent from work of the labor force,
depending on type of medical treatment

Type of medical attention	Absence from work, days	Income reduction factor
Ambulatory	3	0.107
Admitted to hospital	12	0.429
Admitted to intensive care unit	25	0.893

Table 7
Temporary income decline of wage earners

Sector	Wage-Earning Labor Force	Monthly income, J\$			
		Normal**	Ambulatory	In Hospital	In ICU
Agriculture, forestry and fishery	147,075	28,000	25,004	15,988	2,996
Mining and quarrying	3,370	72,644	64,871	41,480	7,773
Manufacture	56,194	19,900	17,771	11,363	2,129
Construction	69,988	30,380	27,129	17,347	3,251
Electricity and Water	2,810	24,512	21,889	13,996	2,623
Trade (excluding hotels & restaurant services)	141,751	17,136	15,302	9,785	1,834
Transport, Storage and Communications	30,943	26,452	23,622	15,104	2,830
Financing, Real Estate, etc	26,672	24,848	22,189	14,188	2,659
Community, Social and Personal Services	140,388	20,788	18,564	11,870	2,224
Others	4,000	41,312	36,892	23,589	4,420

Note: Average income for poverty level is estimated at \$ 4,876 per month.

Table 8
Estimated number of wage earners that would sustain temporary income decline as a result of the flu pandemic

Type of medical treatment	Moderate scenario		Severe Scenario	
	Per Cent	Number of persons	Per Cent	Number of persons
Ambulatory	15.00	96,025	15.00	96,025
In hospital	0.24	1,536	2.83	18,117
In Intensive Care Unit (ICU)	0.04	256	0.50	3,201

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