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ECONOMIC GROWTH CENTRE

Division of Economics
School of Humanities & Social Sciences

The Impact of the Resilience Package on the Singapore Economy

A Presentation by

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Method

- Outlays from 2009 Budget Statement
- Estimate impacts on real GDP using fiscal and consumption multipliers from Abeyasinghe and Choy (2007)
- In their model, Abeyasinghe and Choy (2007) use data from 1978 to 2003 which also include the period of the latest recession that Singapore economy experienced



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Method

- Whether these multipliers based on historical data apply to the current global financial crisis is open to debate
- In the US, previous studies suggest mixed evidence of the estimates of these multipliers, depending on sample period, assumption, and economic model
- The method we use is consistent with the method used by the US Congressional Budget Office (CBO)



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Caveats

- There are short-term and long-term schemes under the Resilience Package
- Their impacts are on GDP2009 and afterwards
- We focus only on fiscal impacts from spending in 2009
- For example, our forecasts do not include impacts from the Special Risk Sharing Initiative (SRI)
- Our fiscal impact estimates are the lower bound of several possible scenarios
- Other scenarios are open for discussion



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Resilience Package 2009

- Main Purpose
 - Preserve jobs
 - Mitigate the effects from the economic downturn
- S\$20.5 Billion

Jobs for Singaporeans	S\$5.1	Billion
Stimulating Bank Lending	S\$5.8	Billion
Enhancing Business Cash Flow and Competitiveness	S\$2.6	Billion
Supporting Families	S\$2.6	Billion
Building a Home for a Future	S\$5.4	Billion



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Resilience Package 2009

- All schemes support the main purpose one way or another
- First time dipping into reserves for S\$4.9 billion for two one-year schemes; Jobs credit scheme and Special Risk Sharing Initiative (SRI)
 - No need to borrow, there will be no burden for future generations and will not be crowding-out in investments
 - No need to cut the CPF contribution rates, there will be no reduction in domestic demand and adverse effects on mortgage finance



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Jobs for Singaporeans Spending and Impacts

Scheme	Spending (S\$ million)	Multiplier estimates	Impact on real GDP2009	
			(S\$million)	(Percentage Point)
Workfare Income Supplement	266.00	0.43	114.38	0.05
SPUR for Workers and Professionals	375.00	0.80	300.00	0.14
Government Hiring	270.00	0.80	216.00	0.10
Total*	911.00		630.38	0.29

*Figures may not add up due to rounding



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Supporting Families Spending and Impacts

Scheme	Spending (S\$ million)	Multiplier estimates	Impact on real GDP2009	
			(S\$ million)	(Percentage Point)
Double GST Credits and Senior Citizen's Bonus	1,103.00	0.43	474.29	0.22
Service and Conservancy Charges / Rental Rebates	73.00	0.43	31.39	0.01
Utilities-Save (U-Save) Rebates	139.75	0.43	60.09	0.03
Other Measures for Elderly and Lower Income	26.25	0.43	11.29	0.01
Personal Income Tax Rebate	448.72	0.43	192.95	0.09
Residential Property Tax Rebate	75.00	0.43	32.25	0.01
Total*	1,865.72		802.26	0.36

*Figures may not add up due to rounding



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Enhancing Business Cash-Flow and Competitiveness Spending and Impacts

Scheme	Spending (S\$ million)	Multiplier estimates	Impact on real GDP2009	
			(S\$million)	(Percentage Point)
Industrial and Commercial Property Tax Rebate	800.00	0.43	344.00	0.16
Total*	800.00		344.00	0.16

*Figures may not add up due to rounding



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Building a Home for a Future Spending and Impacts

Scheme	Spending (S\$ million)	Multiplier estimates	Impact on real GDP2009	
			(S\$ million)	(Percentage Point)
Expanding and Accelerating Public Sector Infrastructure Spending	1,300.00	0.70	910.00	0.41
Sustainable Development	200.00	0.70	140.00	0.06
Healthcare Infrastructure	800.00	0.70	560.00	0.25
Total	2,300.00		1,610.00	0.73

*Figures may not add up due to rounding



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Note: Personal Income Tax (PIT) Rebate capped at \$2000

- Rebate = $\text{PIT Base} \times 0.2 \times \text{Discount factor for a cap}$
- 2 Groups will receive tax rebate
 - tax liability < \$2000 will get 20% of PIT (no cap):
those with income < \$53,000
 - 25% share of tax base
 - tax liability > \$2000 will get \$2,000 (facing a cap):
those with income > \$53,000, their income that below \$53,000 is
 - 12% share of tax base
 - Total share is 37% of tax base
- Discount factor for a cap = 0.37



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Resilience Package 2009 Fiscal Spending and Impacts

- S\$ 5,876.72 million is estimated to be injected into the economy
- With multiplier effects, the impact on real GDP in 2009 will be S\$ 3,386.64 million
- Estimated to add 1.54 percentage points to 2009 real GDP



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Theoretical Prediction for the impact of Special Risk-Sharing Initiative

- For a bank to approve a loan it has to ensure that the following holds:
- Potential interest earned $>$ Potential loss if the firm defaults
- This is: $(1 - \text{Prob}_d)(rL) > \text{Prob}_d * L$
Where Prob_d is the probability of default
 r is the interest rate and L is the loan amount



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Theoretical Prediction for the impact of Special Risk-Sharing Initiative

- This is equivalent to the following rule:
- $\text{Prob}_d < (r/(1+r))$
 - For example at 5% interest, Banks will lend out only if Prob_d is lower than 4.8%
- With the risk sharing scheme, the bank is only liable for 20% of the loan amount:
- The new rule becomes: $\text{Prob}_d < [r/(r+(0.2))]$
 - With the Risk sharing scheme and at 5% interest rate, Bank will lend out if Prob_d is lower than 20%
- With SRI, banks are more willing to loan to firms