Economic Impacts by Energy Subsidy Removals in EAS Region

ERIA Governance Board Meeting
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OUTLINE OF PRESENTATION

I. RATIONALE

II. ECONOMIC IMPACTS BY ENERGY SUBSIDY REMOVALS-

- MALAYSIA
- THAILAND
- INDIA
- CHINA

III. SOME DIRECTIONS

I. RATIONALE

"Fossil fuel subsidies encourage wasteful energy use, burden government budgets and also defer investment in energy infrastructure, efficient technology and further undermine the Renewable energy up-takings"

KEY MESSAGE

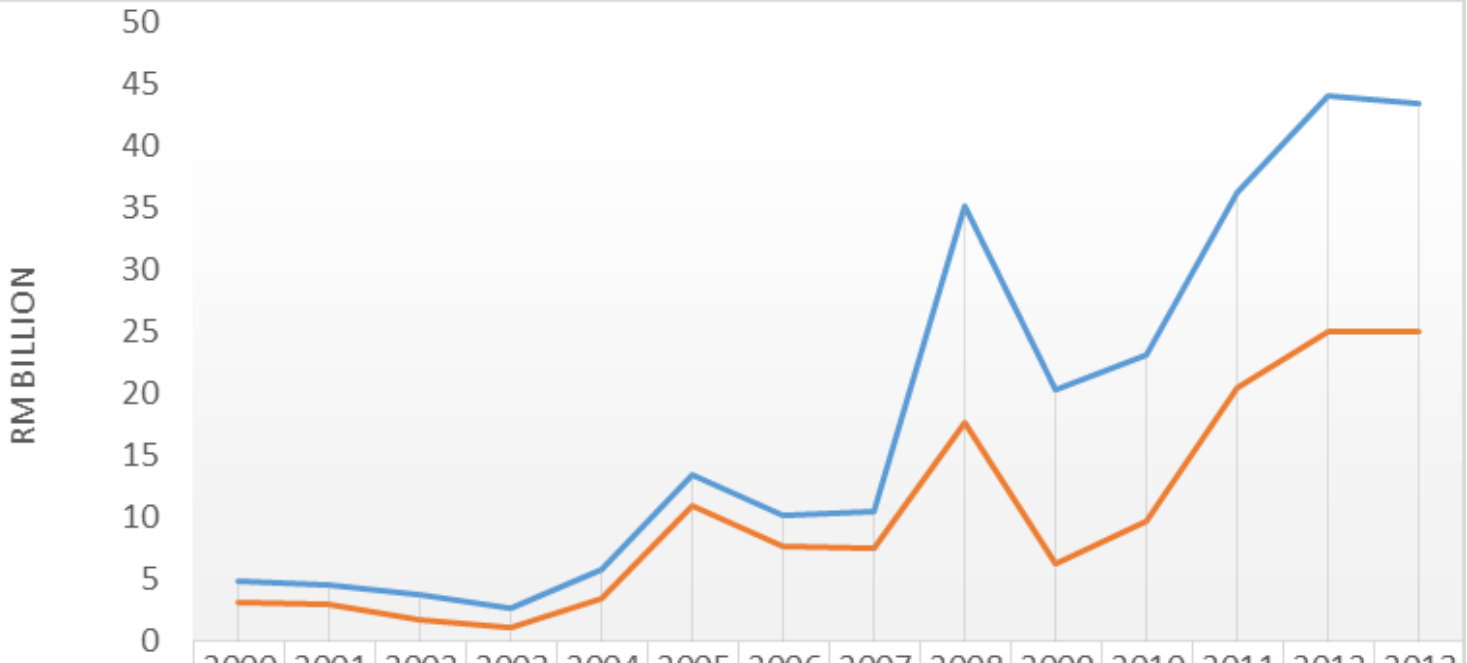
"It is a very good time to carry out energy subsidy reforms during low oil price"

II. ECONOMIC IMPACTS BY ENERGY SUBSIDY REMOVALS

Malaysia's Case Study

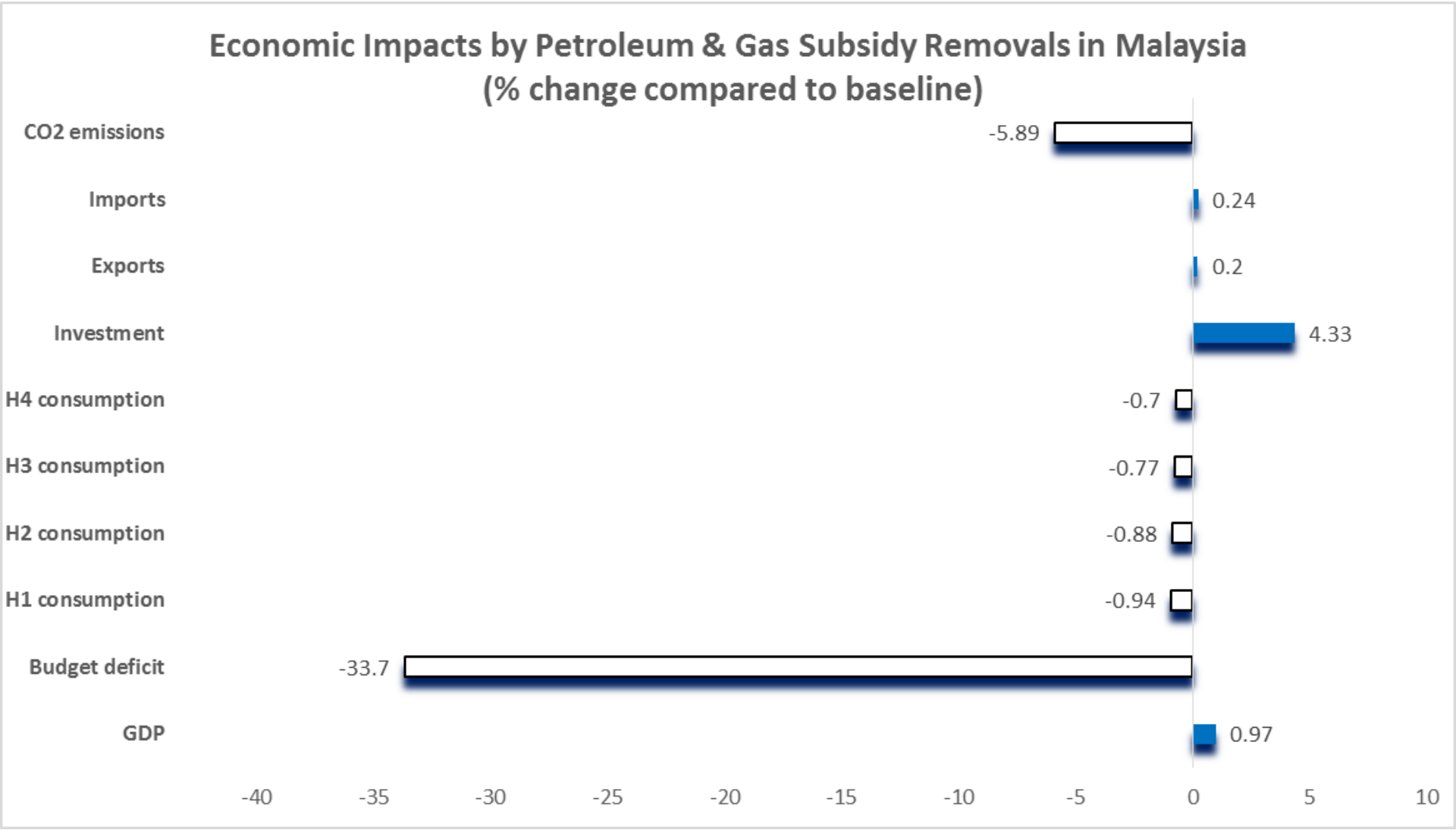
- Petroleum subsidy ≈ 9.6 billion in 2010;
- Malaysia's national oil corporation, PETRONAS, is required to supply gas to power generators at a capped price (roughly 25% of the market price): forgone revenue ≈ 11.2 billion in 2010;
- Industries and commercial sectors also buy subsidized gas from PETRONAS: forgone revenue ≈ 11.2 billion in 2010

Subsidy grow bigger- Need Exit Strategy?



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Subsidies (RM Billion)	4.83	4.55	3.68	2.68	5.8	13.39	10.11	10.48	35.17	20.35	23.11	36.26	44.1	43.35
Total Fuel Subsidies (RM Billion)	3.17	2.88	1.65	1.01	3.34	10.98	7.56	7.47	17.56	6.19	9.61	20.4	25	25

Malaysia's Results



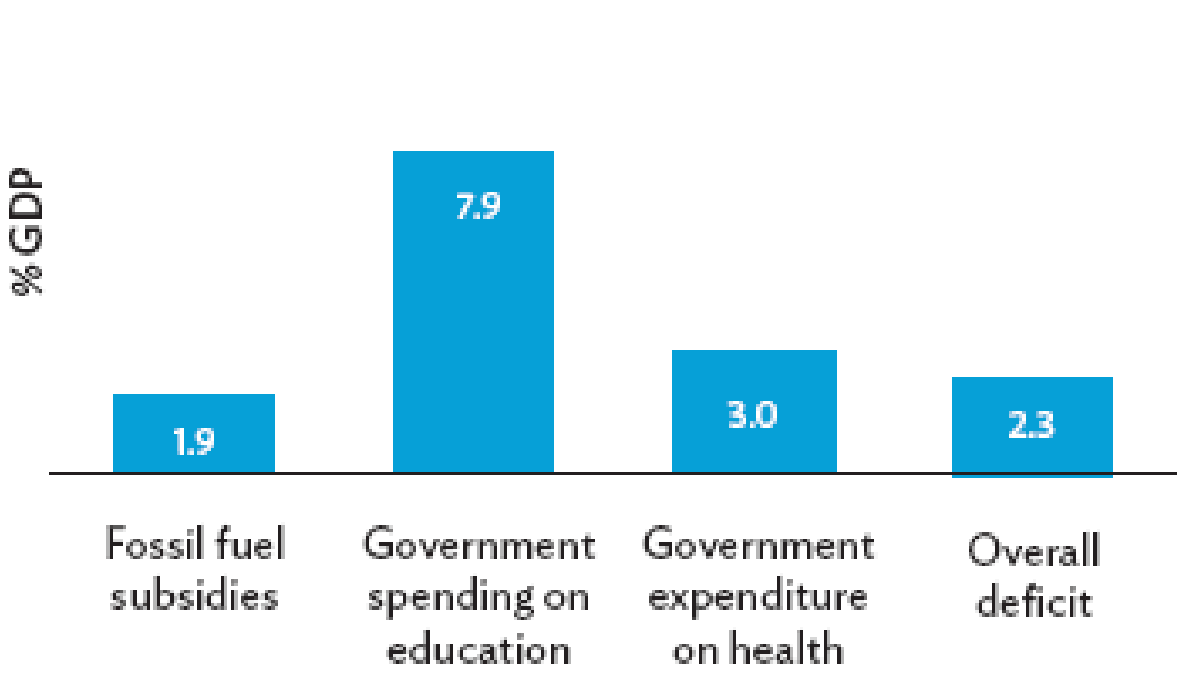
KEY MESSAGE FOR MALAYSIA

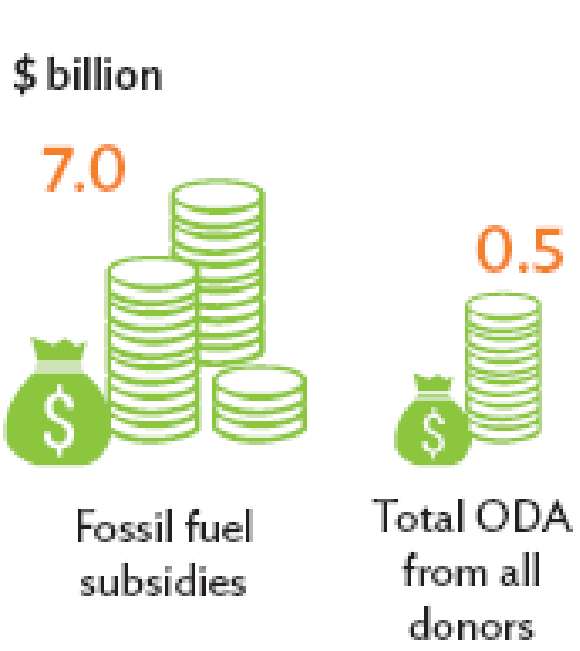
"Energy subsidy removals would improve economic efficiency and increase real GDP up almost 1%, and reduce budget deficit by 34%"

Thailand's Case Study

"An estimated fuel subsidy in Thailand ≈ $US 7 Billion in 2012 "

Thailand's Fuel subsidy expenditures-2012





GDP = gross domestic project, ODA = official development assistance.

Sources: ADB, Statistical Database System; OECD, International Development Statistics; World Bank, Data.

RESULT & KEY MESSAGE FOR THAILAND

"The removal of fossil fuel subsidies in Thailand, with reallocation to households and the government budget, was projected to have negligent impacts on GDP, which should not worry the policy-makers if the reform undergo"

China's Case Study

"An estimated energy subsidy in China ≈ 5% of GDP in 2010 "

Energy subsidy of coal, petroleum, natural gas, and electricity

	Base price	Final consumption price	Price gap	Consumption（one hundred tons/m³/kwh）	Energy Subsidy(one hundred million yuan)
Coal（yuan/t）	988.80	731.30	257.50	3.12	804.01
gasoline	7799.50	6464.10	1335.40	0.07	91.96
kerosene	7209.30	5548.20	1661.10	0.02	28.97
fuel oil	6893.70	3935.50	2958.20	0.04	111.17
Natural gas（yuan/m³）	3.41	2.35	1.06	107.58	114.03
electricity（yuan/kwh）	1.03	0.79	0.34	3331.93	1132.86
SUM					2515.09

Unit energy subsidy

Accounts for 5% of GDP in 2010

RESULT & KEY MESSAGE FOR CHINA

"The findings suggest that removing energy subsidies will induce cost, thus it requires technology innovative for higher energy efficiency through aggressive policy support. The study also suggested that removing energy subsidy could correct the negative environmental externalities and improve the social welfare in China"

India's Case Study

"An estimated energy subsidy in India ≈ IND 854 Billions in 2014"

India's Case Study: Subsidy on Kerosene (INR/Litre) and Domestic LPG (INR/Cylinder)

Year	*Public Distribution Scheme (PDS) Kerosene			Domestic LPG		
	From Govt. Budget	By Public Sector Oil Companies	Total Subsidy	From Govt. Budget	By Public Sector Oil Companies	Total Subsidy
2004-05	0.82	7.96	8.78	22.58	124.89	147.47
2005-06	0.82	12.10	12.92	22.58	152.46	175.04
2006-07	0.82	15.17	15.99	22.58	156.08	178.66
2007-08	0.82	16.23	17.05	22.58	214.05	236.63
2008-09	0.82	24.06	24.88	22.58	234.88	257.46
2009-10	0.82	14.85	15.67	22.58	178.13	200.71
2010-11	0.82	17.39	18.21	22.58	249.94	272.52
2011-12	0.82	26.46	27.28	22.58	320.30	342.88
2012-13	0.82	31.16	31.98	22.58	427.14	449.72
2013-14	0.82	33.98	34.80	22.58	499.52	522.10
2014-15	0*	27.93	27.93	0*	409.72	409.72

Sector-wise Subsidy Outgo and their Proportion to GDP in India

Year	INR in Billions				Percent of GDP			
	Food	Fertilizer	Petroleum	Total	Food	Fertilizer	Petroleum	Total
2011-12	728.22	700.13	684.84	**2113.19**	0.81	0.78	0.76	**2.35**
2012-13	850.00	656.13	968.80	**2474.93**	0.84	0.65	0.96	**2.45**
2013-14 BE	–	–	–	–	0.79	0.58	0.57	**1.94**
2013-14 RE	920.00	679.71	854.80	**2454.51**	0.81	0.60	0.75	**2.16**
2014-15 BE	1150.00	729.70	634.27	**2513.97**	0.89	0.57	0.49	**1.95**

RESULT & KEY MESSAGE FOR INDIA

"LPG subsidy seems benefit the rich rather than the poor as most subsidy share goes to largely benefiting the urban people (69% share of LPG subsidy). The finding of this study suggests that removing LPG subsidy will not impact the rate of economic growth"

III. SOME DIRECTIONS

- *Targeting:* Energy subsidies will be needed for the well-targeted population who need energy for their basic need of cooking, lighting and transportation.

- *Transparency:* It is very important that the government will need to publicize the cash transfer to support the poor during the energy subsidies gradual removal. The transparency will gather public support in the reform process.

- *Consistency:* Reporting, monitoring and disseminating the reform process with clear timeframe, and sector by sector will allow all stakeholders to envisage the cost incurred to their individual and business in the future. This will ensure larger success of the reform programme.

- *Policy support*: Policy supports and investment in efficient technologies (including the environmental technologies) are seen as key to bring firm competitiveness.