

SOE performance, reform and debt in Asia

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Introduction

- ▶ This paper examines state-owned enterprise (SOE) reform over the last three decades
 - Focus on China, Korea, Thailand and Vietnam
- ▶ Paper provides background on source of concerns re SOE performance
 - Empirical evidence
- ▶ Considers strategies used to address underperformance—including corporatization, improvements to governance and other institutional strengthening, and restructuring
 - Includes analysis of the potential role of AMCs as facilitators of corporate restructuring

Continuing importance of SOEs (2010s)

- ▶ SOEs produce around one-tenth of world GDP and account for about 20% of global equity market capitalization
 - China's SOEs provided > 50% of its GDP, controlled 40.3% of total industrial assets, and generated 25.1% of industrial firm revenues
 - Korea's national SOE sector is comprised of 59 enterprises, employed approximately 132,500 individuals, and had a value of \$232.2 billion as of 2012
 - The Thai State has \geq 50% ownership in 58 companies, that employed over 250,000, had assets of \$403.0 billion, revenue of \$157.1 billion, profits of \$8.1 billion, and contributed \$4.2 billion to government revenue in 2014
 - Vietnam's SOE sector employed 13.5% of the labour force produced 32.9% of GDP, controlled 30.9% of enterprise capital, paid 21.1% of total employee compensation, and provided 23.1% of Government revenues

Drivers of SOE reform and restructuring

- ▶ Public policy shift towards greater reliance on market-based economics (Anglo-Saxon economies)
- ▶ Fiscal consolidation and market deregulation in preparation for European Monetary Union (Euro economies and periphery countries)
- ▶ The 'Washington Consensus' (developing economies)
- ▶ Systemic economic and financial crises and the market transition process (East Asian, including focus, economies)
 - Revealed economy-wide weaknesses in corporate finance and governance, manifesting in non-performing loans (NPLs) and systemic bank problems; increased willingness to reform

More recently (context)

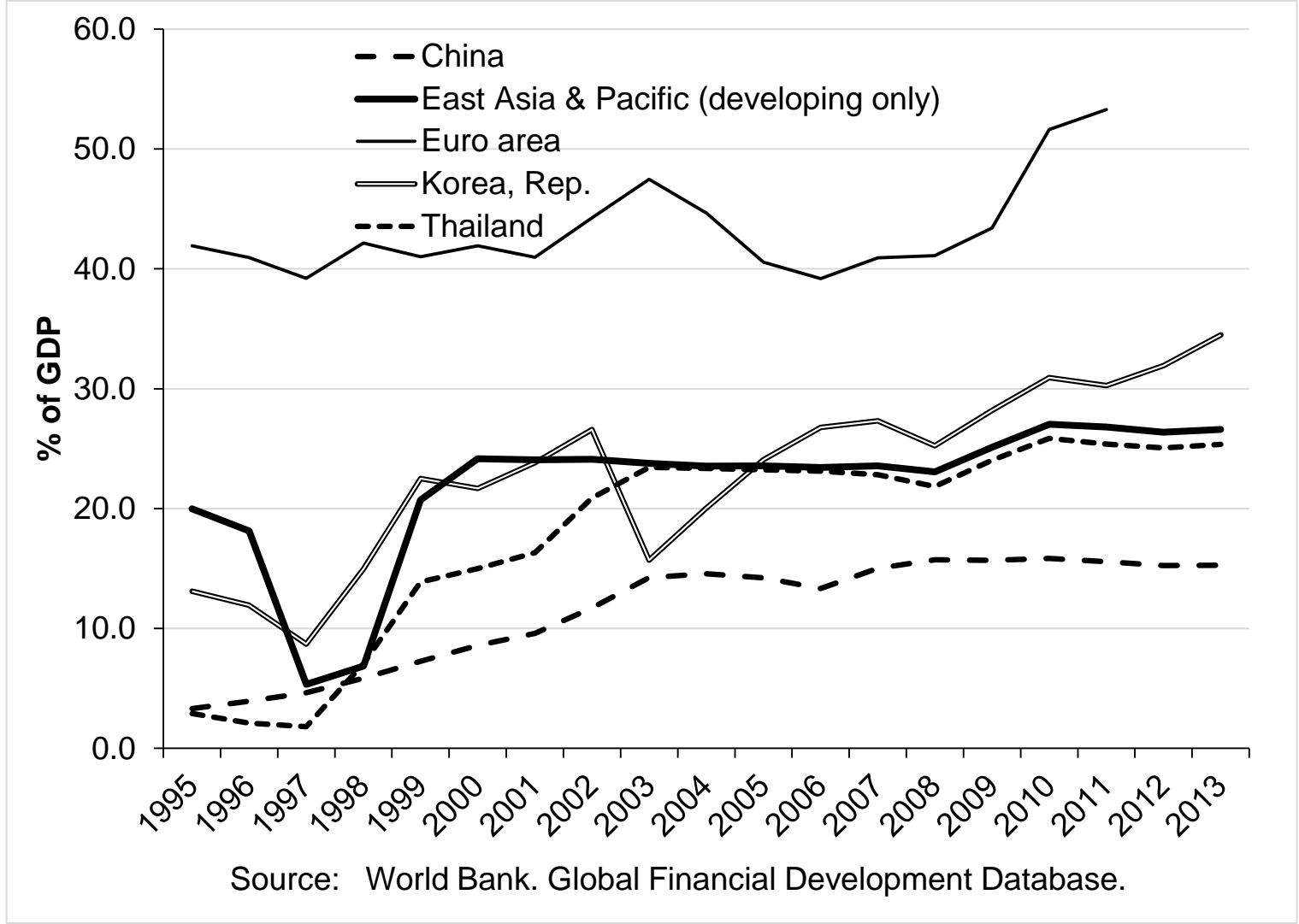
- ▶ Reduced growth outcomes following GFC and ESDC
 - Increases in public sector debt
 - Desire to unlock value available through reform and restructure of SOE assets (i.e., China and Vietnam)
- ▶ Budgetary provisions to SOE sector (including Korea and Thailand)
 - Size of contributions/drains on public budget
- ▶ Concerns over high levels of leverage in the SOE sector
 - Potential fiscal liabilities associated with implied or actual government guarantees

Growth in Real Purchasing Power Parity (PPP) GDP East Asian Focus Countries. 1991–2014 (% p.a. 2011 international \$)

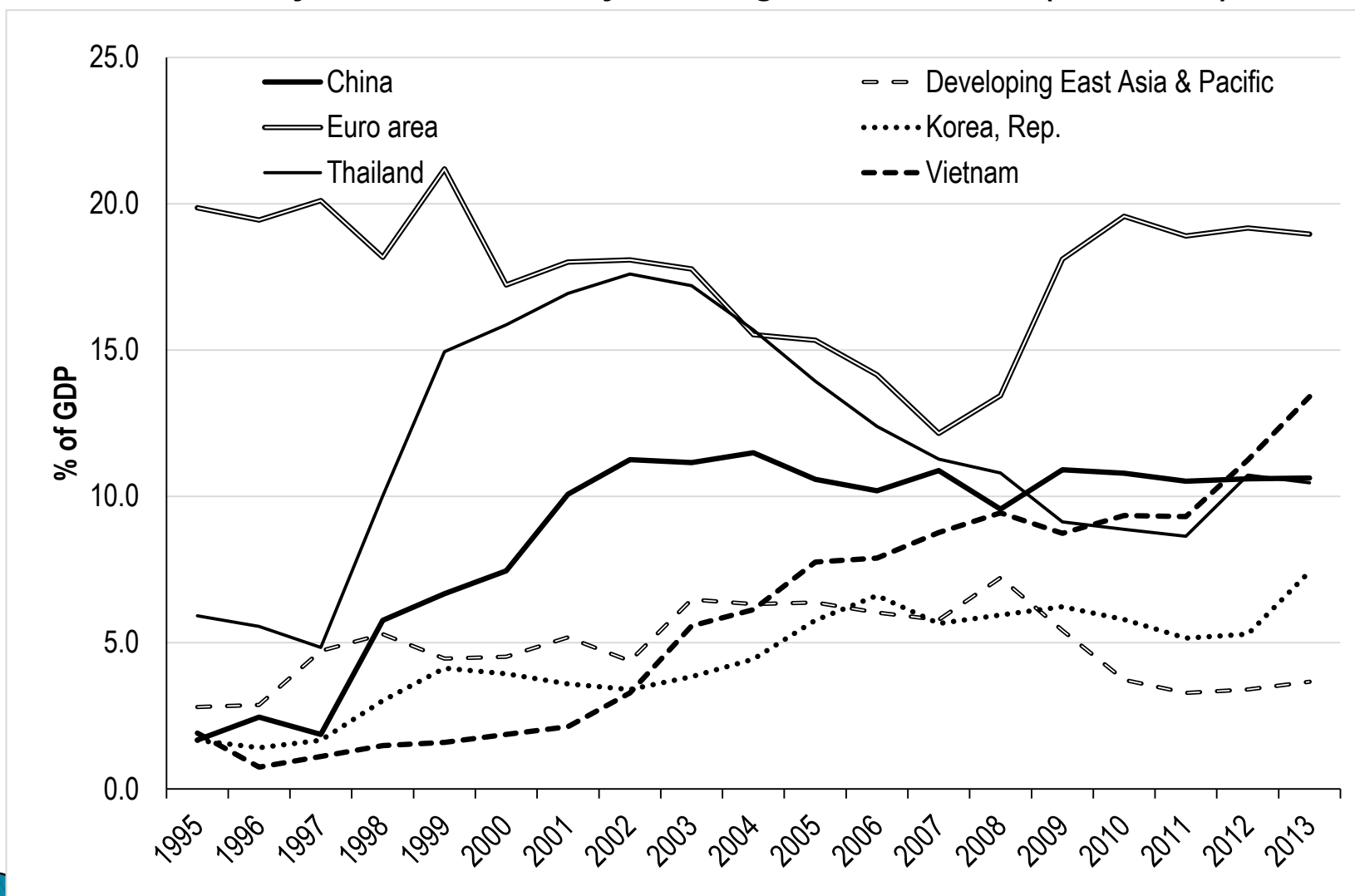


Source: World Bank. World Development Indicators.

Outstanding public debt securities to GDP by Selected Country and Region, 1995–2013 (% of GDP)



Credit to government and state owned enterprises to GDP by Selected Country and Region, 1995–2013 (% of GDP)



Source: World Bank. Global Financial Development Database.

Gearing by Form of Control, Selected Economies, 2006–2014

Year	China		Korea		Thailand		Vietnam	
	SOE	Non-SOE	SOE	Non-SOE	SOE	Non-SOE	SOE	Non-SOE
2006	90.46	65.50	79.00	111.85	67.18	78.68	-	-
2007	86.58	60.01	79.15	116.34	63.09	71.77	-	-
2008	92.16	63.41	157.71	116.71	92.41	72.72	180.53	131.45
2009	99.30	65.45	130.16	107.21	103.02	61.65	164.71	147.28
2010	106.75	87.77	118.32	103.62	94.84	64.08	165.32	146.97
2011	112.39	75.77	166.66	102.18	97.04	74.55	169.13	151.09
2012	110.76	87.53	143.05	101.50	94.85	81.74	149.84	130.13
2013	92.36	70.59	142.18	101.44	146.87	73.99	147.32	125.74
2014	90.86	65.44	189.51	96.21	133.36	74.92	136.19	118.11

Source: Bureau van Dijk Orbis; author's calculations.

Notes: Gearing, measured as the debt-to-equity ratio; state-owned or controlled enterprise (SOE); and enterprises not owned or controlled by the state (Non-SOE).

Performance (ROA) by Sector and Control, Selected Countries, 2006–2014 Average

Sector	China		Korea		Thailand	
	SOE	Non-SOE	SOE	Non-SOE	SOE	Non-SOE
Banks	4.46		-0.47	-2.49	0.93	2.77
Chemicals, rubber, plastics, non-metallic products	4.41	6.59	7.10	6.51	36.87	10.23
Construction	5.19	4.68	-3.69	6.97		7.14
Food, beverages, tobacco	13.14	8.53		5.26		9.42
Gas, Water, Electricity	3.44	3.19		7.30	42.94	10.40
Hotels & restaurants	4.94	5.87		3.39		7.51
Insurance companies	0.40	0.64	10.82	1.54		6.94
Machinery, equipment, furniture, recycling	3.50	6.44	1.19	5.65		9.45
Metals & metal products	3.43	5.14		4.80		5.74
Other services	6.20	6.26	9.16	5.21		10.86
Post & telecommunications	4.70	2.74		6.25		5.88
Primary sector	8.75	4.01		4.92	15.81	5.97
Publishing, printing	7.72	6.78	6.02	7.36		8.56
Textiles, wearing apparel, leather	0.90	5.10		3.92	-1.39	4.68
Transport	6.98	5.61	1.23	5.88	6.85	10.69
Wholesale & retail trade	5.16	5.34	6.93	7.70	4.55	8.94
Wood, cork, paper	6.88	3.72		4.59	26.62	4.78
Average ROA (PLBT)	4.93	6.03	4.13	5.91	16.36	8.82
Average Assets (\$ '000)	8,338,607	1,023,282	2,580,209	584,815	4,347,251	163,357
Average Herfindahl-Hirschman index (HHI)	821.17	415.54	1,032.81	780.85	1,902.07	490.59
Number of observations (firm-year)	2,268	17,208	180	32,895	144	17,748

Source: Bureau van Dijk, Orbis; author's calculations.

Notes: Return on assets, based on profit/loss before tax (ROA_PLBT); state-owned or controlled enterprise (SOE); and enterprises not owned or controlled by the state (Non-SOE).

Performance (ROA) by Sector and Control, Vietnam, 2008–2013 Average

Sector	SOE	Non-SOE
Banks	1.39	0.82
Chemicals, rubber, plastics, non-metallic products	7.45	5.81
Construction	3.35	3.70
Food, beverages, tobacco	3.50	6.69
Gas, Water, Electricity	4.70	6.24
Hotels & restaurants	0.34	3.82
Insurance companies	6.64	2.84
Machinery, equipment, furniture, recycling	0.75	6.13
Metals & metal products	6.34	4.29
Other services	9.15	5.36
Post & telecommunications	13.97	0.89
Primary sector	5.54	4.94
Publishing, printing	6.11	3.12
Textiles, wearing apparel, leather	5.90	5.23
Transport	2.52	4.47
Wholesale & retail trade	4.84	6.17
Wood, cork, paper	5.98	6.52
Average ROA (PLBT)	4.91	5.46
Average Assets (\$ '000)	386,018.09	42,212.57
Average Herfindahl-Hirschman index (HHI)	1,550.89	1,154.72
Number of observations (firm-year)	2,429	23,702

Source: Bureau van Dijk, Orbis; author's calculations.

Notes: Return on assets, based on profit/loss before tax (ROA_PLBT); state-owned or controlled enterprise (SOE); and enterprises not owned or controlled by the state (Non-SOE).

Regression Modelling

$$\begin{aligned} \text{ROA}_{it} = & \alpha + \beta \text{SOE}_{it} + \sum_{k=1}^3 \lambda_k \text{CONTROLS}_{it} + \sum_{l=1}^3 \theta_l \text{CONTROLS}_{it} \times \text{SOE}_{it} \\ & + \sum_{n=1}^{19} \phi_n \text{INDUSTRY}_n + \sum_{t=1}^7 \varphi_t \text{YEAR}_t + \varepsilon_{it} \end{aligned}$$

- ▶ SOE a dummy variable, captures the impact of being a state-invested firm
- ▶ The firm's share in sector revenue (Rev_Share) provides a firm-specific indicator of market power of firms in the sample data
- ▶ Herfindahl-Hirschman index (HHI) a revenue-based measure of industry concentration in the sample data
- ▶ Firm size (Size), measured as the log of revenues for the firm

Summary of Random Effects Regressions, By Country

Variables	China	Korea	Thailand	Vietnam
SOE	-6.214** (2.965)	15.199* (8.198)	12.301 (21.145)	-6.949*** (2.229)
Size	-0.677*** (0.127)	-0.259 (0.097)	0.329* (0.175)	0.321*** (0.079)
Rev_Share	29.744*** (10.088)	-2.613 (3.426)	2.305 (10.206)	2.810 (3.162)
HHI	-0.002** (0.001)	0.000 (0.000)	-0.002** (0.001)	0.000*** (0.000)
Size#SOE1	0.382* (0.227)	-1.442* (0.677)	-0.384 (2.046)	0.536** (0.224)
Rev_Share#SOE1	-26.196** (10.637)	18.590** (7.845)	-14.194 (16.087)	6.268 (6.376)
HHI#SOE1	0.002*** (0.000)	0.002* (0.001)	0.000 (0.002)	0.000 (0.000)
Industry Effects	Yes	Yes	Yes	Yes
Year Effects	Yes	Yes	Yes	Yes
Firm-Year Observations	16,100	29,250	15,841	12,171
No. of Groups	2,161	3,660	1,985	3,703
R-squared	0.022	0.017	0.029	0.025

Notes: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1, 2-tailed z statistics. China, Korea and Thailand results are based on unbalanced panel data, 2006 to 2014. For Vietnam unbalanced panel data, 2008 to 2014.

Average Treatment Effect of SOE on ROA (Propensity Score Matching)

	China	Korea	Thailand	Vietnam
Coefficient	-1.624	1.743	15.419	-2.127
Standard Error	0.297	0.720	2.605	0.380
P > z 	0.000	0.016	0.000	0.000
Firm-Year Obs.	18,255	32,908	17,823	15,905
Min. Matches	5	5	5	5

Notes: 2-tailed z statistics.

China, Korea and Thailand results are based on unbalanced panel data, 2006 to 2014.

For Vietnam unbalanced panel data, 2008 to 2014.

Summary re Relative SOE Performance

- ▶ Evidence of relative underperformance of SOE sector in both China and Vietnam
 - Based on large sample of comparative firms with high presence of SOE and non-state competition by industry sector
 - Suggests considerable potential benefit from SOE restructuring
- ▶ Results for Thailand and Korea suggest SOEs may outperform non-state sector, but caveats
 - Conclusions limited by small number of SOEs in sample
 - Lack of direct competition in many sectors (especially Thailand)
 - Growth in SOE sector assets have outpaced growth in internal funding leading to growth in levels of gearing in SOE sectors

SOE reform alternatives

- ▶ Corporatization and reform of governance
 - Strong element in East Asian focus economies
 - Frequently seen as prelude to privatization or equitization
 - Considerable progress but
 - SOEs' ROA lower than cost of capital, constraining growth; resistance to reform; and concerns over corruption at, and abuse of monopoly power by, SOEs (China)
 - Increases in SOE use of debt even in the presence of strengthened management autonomy and accountability of SOEs (Korea)
 - Greater transparency, but targets of performance agreements frequently not met by SOEs (Thailand)
 - Poorly defined business mandates, complicated management structures, and poor strategy have reduced financial performance (Vietnam)

▶ Privatization

- Increased interest due to perceived improvements to performance, efficiency, and political independence (Thailand)
 - Reduces pressure for subsidization/guarantee of SOE financing
- Transfers of SOE assets to foreign and private ownership via full privatization have provided the largest increases in operating efficiency and profitability (e.g., China)

▶ Equitization

- Major focus where continued government involvement in large firms and strategic industry sectors desired (China, and more recently Vietnam)
- Process slowed in the presence of political resistance of SOE managers, and where investor concerns over the high and often controlling levels of government equity maintained after equitization, remain (Vietnam)
 - Requires substantial institutional development in terms of addressing the rights of SOE owners, financial monitoring and transparency, corporate debt management, SOE sales (e.g., Vietnam)

Where do AMCs fit?

- ▶ In the focus economies, the major function of AMCs has been the purchase, operation, and management of assets associated with NPLs acquired from banking sectors
 - Centralized AMCs have proven to be successful vehicles in resolving NPAs and in assisting in the reform of SOE assets
 - Reflects high level of political support for AMCs as agents of restructuring, not just vehicles for rapid NPL disposition (Korea and China)
 - Supported by central role taken by the governments in the development process, and desire of transition economies' governments to create and maintain a large internationally competitive SOE sector as a vehicle for achieving growth outcomes (China and Vietnam)
 - Enhanced by operation under the close scrutiny of the public, public sector, and international financial institutions (Korea)

- ▶ Most effective where
 - NPA problems are pervasive, and where business cultures or legal and other institutional infrastructures are less developed (China)
 - Legal reforms or special powers to resolve NPAs has been required to manage financial crises (Korea, Thailand and China)
- ▶ May be better placed to engage in longer-term strategies to maximize recovery of value from NPAs
 - Undertaking restructuring of business sectors (Korea and Vietnam), balance sheet restructuring (Korea and China), and facilitating equitization of SOEs by IPO (China)
 - Catalyst for legal reform of bankruptcy and NPL collection procedures (Thailand)
 - Holding onto assets to achieve better pricing in the presence of market recovery (Korea)

- ▶ Form part of the solution for reorganisation of large SOE sectors
 - Potential to operate with economies of scale and scope
 - Development and application of specialist skills in corporate workouts and asset sales (Korea, Thailand, China)
 - Reduction transactions costs, and problems associated with asymmetric information, through use of internal rather than external markets to facilitate asset transfer between enterprises (China)
 - Role in developing capital markets through providing a supply of secondary securities (Korea)
 - Additional barrier between the government owner and SOE management, changing the nature of the principal-agent problem

Thank You