

2021年9月10日

チェコ日本商工会セミナー

タイ・チェコ自動車産業政策比較

Industrial Policy and Automotive Development: A Comparative Study of Thailand and Czechia

Kaoru NATSUDA (Ph.D)

Professor, College of International Management, Ritsumeikan Asia Pacific University, Japan

夏田 郁 (Ph.D)

立命館アジア太平洋大学 国際経営学部 教授

目次

1. 自己紹介
2. グローバル・東南アジア・中欧自動車産業の生産動向
3. 政府の能力と産業政策
4. タイ自動車産業
5. チェコ自動車産業
6. タイ・チェコ自動車産業の相違点
7. 結論

1. 自己紹介

Professor, Kaoru NATSUDA (Born in Oita)

Education:

Ph.D in Economics (Political Economy)
University of Sydney, Australia

Work Experiences:

Production Controller, Hitachi Metals (1996-1998)
International Consultant, Ernst & Young (2005-2007)

APU:

Assistant Professor (2007-2009)
Associate Professor & Vice Dean of APM(2010-2015)
Professor (2016-)

Others:

Visiting Scholar, Charles University in Prague (2015-2016)
Visiting Professor, Budapest Business School (2019-2020)
Please e-mail: natsuda@apu.ac.jp

国際経営学部教授 夏田 郁 (Ph.D)

教育:

豪州 シドニー大学 経済学部大学院 博士課程修了

職歴:

日立金属 特殊鋼事業部 生産管理部員 (1996-1998)
新日本有限監査法人 国際コンサルタント (2005-2007)

APU:

専任講師 (2007-2009)
准教授 (2010-2015)
教授 (2016-)

他:

チェコ・カレル大学 東アジア研究所 客員研究員(2015-2016)
ハンガリー・ブダペスト商科大学 客員教授 (2019-2020)
email: natsuda@apu.ac.jp

Research (研究)

Transfer of Japanese-style management to the Czech Republic: the case of Japanese manufacturing firms

Kaoru Natsuda, Jan Sýkora & Jiří Blažek

Asia Europe Journal
Studies on Common Policy Challenges

ISSN 1610-2932
Volume 18
Number 1

Asia Eur J (2020) 18:75-97
DOI 10.1007/s10308-019-00534-6

 Springer

チェコ関連の研究:

Transfer of Japanese-style management to the Czech Republic: the case of Japanese manufacturing firms

在チェコ日本商工会の会員企業様のご協力により、カレル大学の研究者と2016年に現地調査を実施し、2020年にAsia Europe Journalより在チェコにおける日系製造業における経営移転研究の学術論文を出版

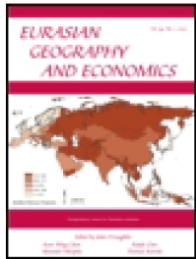
Research (研究)

研究分野:

国際開発学、国際政治経済学、産業発展研究 (アパレル産業、自動車産業), 地域発展・コミュニティ開発 (社会関係資本), 日本企業研究

研究経験国:

タイ, マレーシア, インドネシア, フィリピン, カンボジア, ベトナム, 中国, 香港, ウズベキスタン, チェコ, ハンガリー 他



Eurasian Geography and Economics

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/rege20>



Industrial policy and automotive development: a comparative study of Thailand and Czechia

Kaoru Natsuda, John Thoburn, Jiří Blažek & Kozo Otsuka

2020・2021年発表の書籍・論文



**AUTOMOTIVE
INDUSTRIALISATION**

**INDUSTRIAL POLICY AND DEVELOPMENT IN
SOUTHEAST ASIA**

Kaoru Natsuda and John Thoburn



2. グローバル・東南アジア・中欧自動車産業の生産動向

- Global shift occurred in the automotive industry in the period of 2000-2018.
- Traditional automotive producing countries are stagnating, While newly industrializing countries are growing rapidly.
- China has become the largest producing country. Local Chinese assemblers have grown, too.
- India overtook Germany in 2018.

	2018			2000			2000-2018	
Country	Rank	Production	Share	Rank	Production	Share	2018:2000	Growth (%)
World	-	95,634,593	100%	-	58,374,162	100%	1.64	64%
China	1	27,809,196	29.1%	8	2,069,069	3.5%	13.44	1244%
USA	2	11,314,705	11.8%	1	12,799,857	21.9%	0.88	-12%
Japan	3	9,728,528	10.2%	2	10,140,796	17.4%	0.96	-4%
India	4	5,174,645	5.4%	15	801,360	1.4%	6.46	546%
Germany	5	5,120,409	5.4%	3	5,526,615	9.5%	0.93	-7%
Mexico	6	4,100,525	4.3%	9	1,935,527	3.3%	2.12	112%
South Korea	7	4,028,834	4.2%	5	3,114,998	5.3%	1.29	29%
Brazil	8	2,879,809	3.0%	12	1,681,517	2.9%	1.71	71%
Spain	9	2,819,565	2.9%	6	3,032,874	5.2%	0.93	-7%
France	10	2,270,000	2.4%	4	3,348,361	5.7%	0.68	-32%
Thailand	11	2,167,694	2.3%	19	411,721	0.7%	5.26	426%
Canada	12	2,020,840	2.1%	7	2,961,636	5.1%	0.68	-32%
Russia	13	1,767,674	1.8%	13	1,205,581	2.1%	1.47	47%
UK	14	1,604,328	1.7%	10	1,813,894	3.1%	0.88	-12%
Turkey	15	1,550,150	1.6%	18	430,947	0.7%	3.60	260%
Czech Rep.	16	1,345,041	1.4%	17	455,492	0.8%	2.95	195%
Indonesia	17	1,343,714	1.4%	25	292,710	0.5%	4.59	359%
Iran	18	1,095,526	1.1%	27	277,985	0.5%	3.94	294%
Slovakia	19	1,090,000	1.1%	30	181,783	0.3%	6.00	500%
Italy	20	1,060,068	1.1%	11	1,738,315	3.0%	0.61	-39%
Poland	21	659,646	0.7%	16	504,972	0.9%	1.31	31%
Malaysia	23	564,800	0.6%	26	282,830	0.5%	2.00	100%
Hungary	26	430,988	0.5%	32	137,398	0.2%	3.14	214%
Vietnam	-	237,000	0.2%	-	6,862	0.01%	34.54	3354%
Philippines*	-	79,763	0.1%	-	41,840	0.1%	1.91	91%

Major Automotive Producing Countries, 2000 and 2018

Note: unit-number of vehicles,
Source: OICA (website)

3.政府の能力と産業政策

産業政策は有効？

- 新古典派経済学は、基本的に政府の市場介入は認めていなく、政府の役割は「市場の歪みの是正」をすることと定義。
- ネオリベラル経済学を強調するIMF,世界銀行、WTO等の国際機関は「産業政策」を認めていない。



- アジアの実証研究：開発指向型国家・制度派経済学は産業政策の重要性を強調

3.1 東南アジア・中欧諸国の政府の能力

東南アジアと中欧地域の政府の能力は基本的に異なっているように見える。

□ Southeast Asia (SEA): Neo-developmental states

(Developmental State Studies: Amsden 1989, Wade 1990)

importance of state guidance and intervention in economic development. Industrial policy is the most important policy instrument.



□ Central Europe (Visegrad 4): Embedded liberal states

(Variety of Capitalism Studies: Bohle and Greskovits 2007, Nolke and Vilegenthart 2009, Myant and Drahokoupil 2012)

compromises between marketisation (under neoliberalism) and social protections

東南アジア諸国はNeo-Developmental State?

■ Different capacity view (vs. Northeast Asia)

Booth (1999, 313) explained that Northeast Asian states have used state intervention for not just removing policy-induced distortions, but also for coordinating and subsidising private investment. In contrast, Southeast Asian states have usually **used subsidy** for **either political cronyism** or to achieve **non-economic goals**, such as the promotion of indigenous (e.g. non-Chinese) business.

■ Neutral View

Phongpaichit (1996, 373-381) asserts that it is **difficult to fit Thailand into the developmental state model**, with its notoriously weak development planning, yet it is also **wrong to assume that the government did nothing** to facilitate industrial expansion.

■ **Statists View:**

- Rock (2001) acknowledged more significant role of the Thai government, claiming that **selective (or vertical) industry policy in the export industry in Thailand was used systematically and very effective in collaboration with FDI.**
- Natsuda and Thoburn (2013, 2014) examined Thai and Malaysian automotive industrialization in the perspective of comprehensive industrial policies since 1960s.

Industrial Policy in Southeast Asia

- Jomo (2001) views that it is true that Southeast Asian states have implemented **less elaborate, less efficient and less effective industry policies** due to the fact that state intervention in Southeast Asian states has been far more abused and hence often seriously compromised, by political and influential business interests.
- At the same time, **the role of industrial policy in Southeast Asian is undeniable**, and the structural transformation and industrialization have gone beyond what would have been achieved by relying exclusively on market forces.

FDI in Southeast Asia

- Kim and Lee (2000: 89) view that **Southeast Asian states were not able to reduce the role of the state** in their economy. State-intervention has been an effective **and necessary way of escaping from the dependent peripheral economy**.
- Their motivation for economic liberalization and participation in globalization is based not in the creation of a purely *laissez-faire* market, but **in a bid for more foreign investment** in their countries.

中東欧(CEE)諸国

- In prior to 1990, CEE countries employed **centralised and insufficient industrial policy**, based on either relatively liberal oriented policy such as Hungary and Poland or the strong interventionist type policy such as East Germany, Czechoslovakia and Romania (Torok 2007).
- In this socio-economic transition towards neoliberalism, a number of scholars started paying an attention to *varieties of capitalism* in the region by employing concepts from dependency and world system theories (Bohle and Greskovits 2007, Nolke and Vilegenthart 2009, Myant and Drahokoupil 2010, Lane 2010).

Variety of Capitalism in CEE

- In the perspective of Bohle and Greskovis (2007), there are **three divergent paths** towards neoliberalism in CEE:
 - (i) a ***neoliberal type*** of Baltic countries (that have pursued in a rather radical and uncompromised neoliberal policies),
 - (ii) an ***embedded liberal*** type of Visegrad four countries such as Czechia, Slovakia, Hungary and Poland (which are distinguished by their search for compromises between marketization and social protections), and
 - (iii) a ***neo-corporatist type*** of Slovenia (which is a firmly institutional balance between marketization and social protections – business, labor, and the other social group are accepted as partners in forming the balance).

中東欧諸国とネオリベラリズム

- In CEE countries, to some extent, hesitantly accepted the ‘Washington Consensus’, which were deemed as prerequisite for the support by international organizations for the transition process in the 1990s.
- Indeed, these principles and guidelines were regarded as requirements for new membership of Organisation for Economic Co-operation and Development (OECD) and subsequently the European Union (EU) .
- Such international organisations developed a set of different indicators to assess the performance of CEE countries. In these indicators, a **short-term indicators of the business cycle** emphasized more than social indicators such as human development index (Csaba, 2009).

最小限の政府介入

- The adoption of EU policies and practices associated the *acquis communautaire*, such as **EU competition policy**, restrictions on the state aid, improvements in state governance and macroeconomic discipline were preconditions for the EU membership.
- Under the implementation of neoliberal reforms with emphasis on privatisation, financial liberalisation and **a reduction of state intervention** in Visegrad countries.



- Poland's first post-communist Minister of Industry, Tadeusz Syryjczyk commented that “**no industrial policy is the best industrial policy**” .

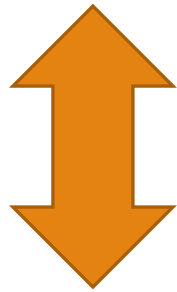
東南アジア — 中東欧地域 類似点・相違点

■類似点

- Both regions depend on FDI (technology and capital accumulation) for development.

■相違点

- Southeast Asia : has never relied on the neo-liberalism, by employing selective industrial policy.



- CEE: has been coerced into the neoliberal regime with an absence of active industrial policy.

3.2 產業政策

水平的政策 vs. 垂直的政策

- **Horizontal industrial policy** is oriented towards the whole economy.



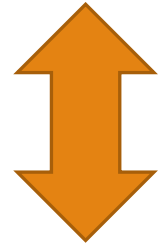
- **Vertical industrial policy** is designed for a specific sector or industry.

(Note) : In the EU, the existence of the state aid rule of the Treaty on Functioning of the EU - to be precise, **Article 107** of the Treaty - **limits sectoral / vertical industrial policy in the EU members.**

ハード政策 vs. ソフト政策

● Hard industrial policy

is essentially *directive* – requiring economic actors to take certain actions – and includes the **establishment of state-owned enterprises (SOEs)**, provision of **selective subsidies**, **protection** for domestic firms/industry, **performance-required policies** on firms/industries, that are closely connected with vertically oriented policy.



● Soft industrial policy

is *facilitative or supportive*, designed for **the promotion of science, technology and innovation**, human resource development, and infrastructure development, based on market conforming methods.

産業政策とWTO

How did WTO influence Auto-industrialisation?



Policy Options in Developing Countries were diminished by **four agreements (TRIMs, GATS, TRIPS, and SCMs)** under the WTO.

In Southeast Asia, liberalisation in the automotive industry under the WTO.

- Indonesia in 1999
- Thailand in 2000
- The Philippines in 2003
- Malaysia in 2004

① Trade-Related Investment Measures (TRIMs)

ban performance requirements, such as those related to local content, trade balance obligations, and export requirements.

② The General Agreement on Trade in Services (GATS)

restrict government intervention in the market and the regulation on the behaviour of multinational corporations operating in their country (**no discriminately treatments between domestic and foreign firms**).

③ Trade-Related Intellectual Property Rights (TRIPs)

protects copyright and patents

④ Agreement on Subsidies and Countervailing Measures (SCMs)

— Regulating the provision of subsidy.

➤ Excepted for countries below US\$1000 per capita GDP

➤ Subsidy Types

● Prohibited subsidies: e.g. export subsidy

● Actionable subsidies: not necessary illegal but can be appealed by other countries

(former permissive subsidies: R&D, HR, regional development, infrastructure and environment)

WTO下で導入可能な産業政策

■ **TRIMs** can be classified into ‘**positive**’ (e.g. tax concession to attract investment) or ‘**negative**’ (various requirements imposed on foreign investors).



Policies based on **Incentives**, instead of requirements are still applicable.

■ **SCMs**

Soft-industrial policies related to science & technology, regional development, environment, infrastructure, and HR development are still applicable. (Hard industrial policies are banned.)

■ **Horizontal – Vertical**

Horizontal and soft industrial policies are perfectly **compatible to the WTO**. In this context, there is no contradiction in terms of policy implementation. On the other hand, vertical industrial policy might include risks in term of policy implementation.

東南アジアと中東欧の産業政策の違い

□ SEA: Vertical (sectoral) Industrial Policy

Although various hard industrial policy was banned around 2000 by the WTO, all SEA countries still use vertical industrial policy to promote the development of automotive industry.



□ CEE: Horizontal Industrial Policy

According to EU Treaty (Article 107), industrial policy should be horizontal, not vertical - **limits sectoral industrial policy in EU members**. Typical industrial policies under the EU include competition policy.

東南アジア自動車産業政策

自動車産業・自由化前

Vertical (sectoral) & **Hard** Industrial Policy before the WTO



自動車産業・自由化後

Vertical (sectoral) & **Soft** Industrial Policy under the WTO

東南アジア自動車動車産業政策（自由化前）

Type	Automotive Industrial Policy	Country
Performance Requirement	Local Content Requirement (LCR)	Thailand, Malaysia, Indonesia, Philippines
	Mandatory Deletion Program (MDP)	Thailand, Malaysia, Indonesia, Philippines
	Export balancing requirement	Philippines
Market Control	Control of manufacture license, models, imported vehicles	Thailand, Malaysia
	Preferential (discriminately) treatment of import tariff for foreign producers	Malaysia, Indonesia
Business Development	National Car Project	Malaysia, Indonesia
	Vender (Supplier) Development Program	Malaysia

Source: Natsuda and Thoburn (2013, 2014, 2018), Natsuda et al. (2013, 2015)

Performance Requirements

■ Local content requirements (LCRs) :

Policies imposed by governments that require firms to use domestically-manufactured in order to operate in an economy.

(e.g Thailand introduced a LCR of 25% in 1971, increased gradually and maintained 70% until 2000)

■ Mandatory deletion programs (MDPs) :

The governments set particular parts that required to be deleted from imported CKD kits.

■ Foreign Exchange Requirements :

A firm has the level of imports linked to the value of its exports in order to maintain a net foreign exchange earning.

Market Control

(e.g. Malaysia)

- “Approval Permit (AP)” system (to limit import of CBU vehicles) in 1966, and the Manufacturing License (ML) system (to control the number of assemblers) in 1967, still retain the policies until 2019.
- Tariffs on components: preferential treatment for national car producers. (CKD: Completely Knock Down kits were imposed at a 40 percent import duty, while national car producers were exempt from this requirement until the early 1990s, and later set at only 13 percent in July 1992 until December 2003).
- Excise duties: national car producers were given a 50 percent discount on excise duties until December 2003.

Business Development (National Car Projects)

■ Malaysia:

In 1983, the first Malaysian national car company, Proton, was established as a JV between the state-owned enterprise of Heavy Industry Corporation of Malaysia (HICOM), Mitsubishi Motors Corporation (MMC) and Mitsubishi Corporation

In 1993, a second national car company, Perodua was established as a JV between Daihatsu Motor and Malaysian firms, with the aim of producing small sized vehicles.

■ Indonesia:

In 1996, PT Kia-Timor Motor was established by Kia and local capital Timor Putra National company.

Business Development (Suppliers)

■ Malaysia:

The government assigned Proton to promote the development of small and medium sized enterprises (SMEs) in the country through the 'Vendor Development Programme (VDP)', aiming to create greater industrial linkages between a large firm and its components suppliers

東南アジア自動車動車産業政策（自由化後）

Country	Automotive Development Policy
Thailand	<ul style="list-style-type: none">■ Automotive Master Plans (AMPs) (Product Champions)<ul style="list-style-type: none">• Pick-up Truck (under 1st AMP) in 2002• Eco-Car (under 2nd AMP) in 2007• 2nd Eco-Car (under 3rd AMP) in 2012■ Electric Vehicle (EV) Action Plan in 2016<ul style="list-style-type: none">• EV road map in 2020
Indonesia	<ul style="list-style-type: none">■ Low Cost Green Car (LCGC) and Low Carbon Emission (LCE) in 2013<ul style="list-style-type: none">• The Promotion of Battery-powered Road Vehicles in 2019
Malaysia	<ul style="list-style-type: none">■ National Automotive Policy in 2006, 2009, 2014 and 2020
The Philippines	<ul style="list-style-type: none">■ Comprehensive Automotive Resurgence Strategy (CARS) in 2015

中東欧諸国の産業政策

Soft Industrial Policy :

- Soft and horizontal industrial policies to promote innovation and human resources, regional development etc. are applicable.

Cluster Policy:

- Smart Specialisation Strategy (RIS3 or S3) in 2011 of its 2014-2020 programming period, to boost innovation performance of the whole EU.
- In CEE, the automotive industry has been designated as a domain of prospective specialisation within S3 strategies (thus, allowing esp. support to small and medium size enterprises such as component suppliers), in Poland, Romania, Slovenia and Czechia.

However, there is no horizontal linkages between clusters.

4. タイ自動車産業

Automotive Master Plans (Product Champion Strategy)

- The automotive industry was established as a part of ISI including vertical and hard industrial policies in the 1960s.
- Since 2000, when the Thai government completed the liberalisation of the automotive industry by lifting LCRs in response to the WTO, Thailand has not shifted its policy orientation simply to *laissez faire*; rather it has started using discretionary powers that are still compatible with the WTO rules.
- To be precise, the Thai government started employing a selective industrial policy by *picking a winner vehicle model*, or *product champion*, and linking this with effective fiscal policy and some local production incentives.

■ The Thai government selected **pick-up trucks** as **the first product champion**, in 2002 and later **'eco cars'** in 2007 and 2012, creating particular segment of market demands that were used as leverage to attract foreign investments into particular models of production.

● **Demand Strategy:**

The Thai **government modified the excise tax rates** (e.g. decreasing for double-cab pick-up trucks from 35-48 percent to 12 percent and for Eco Cars from 30 percent to 17 percent) for consumers.

First-Time Car Buyer Program (tax refund of 10%) in 2011

● **Supply Strategy:**

The government **provided corporate tax exemption** in order to attract foreign investors.

e.g First Eco-Car Scheme in 2007-2011

1. Requirements	
Engine size	Diesel engine - under 1,400 cc / Gasoline engine - under 1,300 cc
Mileage	Over 20 km per litter
Environmental standard	Meeting Euro 4 exhaust gas standard and under 120 g of CO2 emission per 1 km mileage
Safety standard	Meeting UN/ECE regulation article 94 and 95
Investment	Over 5 billion baht investment
Local production requirement	Local production requirements for vehicles and engines and for 4 out of 5 component items (cylinder head, cylinder block, crankshaft, camshaft, connecting rod). Additional requirement for local machine work for 3 items (cylinder head, cylinder block, crankshaft)
Production Volume	Over 100,000 units of production after 5 years the project commences
2. Benefits	
Excise tax	17% (the rate of under 2,000 cc and 220 hp engine vehicle is normally 30%)
Corporate tax	Maximum of 8 years tax exemption for Eco Car project, but the amount of tax exemption should not exceed investment amounts
Tariffs	Import tariff exemption for all production equipment and machineries, and maximum of 90% of tariff exemption for input materials for 2years

Participant in 2nd Eco Car Projects in 2012

Producers	1 st Eco car	2nd Eco Car By 2019	
		Investment Baht	Production (1000 units)
Toyota	2013	10.4 billion	100
Honda	2011	8.2 billion	100
Mitsubishi	2012	11.5 billion	220
Nissan	2010	8.7 billion	123
Suzuki	2012	8.4 billion	100
Mazda	-	11.6 billion	158
Ford	-	18.1 billion	180
SC	-	7.6 billion	110

- Under the Eco Car scheme, the government tactically **linked their fiscal policies**, including excise tax reduction, corporate tax exemption and tariff exemption, to **local production criteria** in 4 out of the 5 most important engine components.
- The Thai government carefully selected which technology should be localised, and **encouraged *local production* by offering several favourable tax incentives**.



This policy is considered as a *positive* TRIMs application.

EV Action Plan (2016-2036)

- Thai automotive industry holds a strong competitive advantage in the production of power-train related components for gasoline and diesel engine vehicles.
- The local supporting industry related to electric vehicles (EVs) is relatively limited.



In response to future sustainable automotive development, the National Energy Policy Council of Thailand approved the 'EV Action Plan (2016-2036)' in 2016, aiming to achieve 1.2 million units of EVs including Plug-in Hybrid Electric Vehicles (PHEVs) and 690 charging stands in the domestic market by 2036.

EV Road map in 2020

■ 30% of local vehicle production is targeted to EV production (including plug-in hybrid vehicles) by 2030.

● Phase 1 (2021-2022):

the development of EV infrastructure nationwide by the government

● Phase 2 (2023 -2025):

a target of 225,000 EV cars and pick-up trucks, 18,000 EV buses/trucks and 360,000 EV motorcycles

● Phase 3 (2026-2030):

a target of 725,000 EV cars and pick-up trucks and 675,000 EV motorcycles plus battery production

■ In 2035, ban sales of new petrol and diesel cars by 2035.

(<https://www.nationthailand.com/tech/40000851>)

EV Road map - Incentives

- A total investment package worth at least 5 billion baht (US\$165 million) is required.
- for PHEVs: a 3-year tax holidays
- for BEVs: an 8-year corporate income tax exemption and extendable in case of R&D investment/expenditures.
- Production of four more types of EV parts (e.g. high voltage harness, reduction gear, battery cooling system and regenerative braking system) is required.
- additional incentives for the production of both battery modules and battery cells for the local market by granting a 90% reduction of import duties for 2 years on raw or essential materials not available locally.

(https://www.boi.go.th/index.php?page=press_releases_detail&topic_id=127092)

タイ・産業政策の一貫性

■ Although the Thai political economy has been chaotic after the collapse of the populist Thaksin government in 2006,

Thai automotive industrial policy seems to have been consistent in terms of its development perspective.

■ The Thaksin administration's 'Detroit of Asia' plan, and is *product champion* under the AMP, have been maintained by both Thaksin's influential administrations (2011-2014) and by the Abhisit government (2008-2011) and even under the current military government after Prayuth's coup (2014 - present).

タイ・ソフト産業政策

Cluster:

Eastern Seaboard in the 1980s – Infrastructure development
(Industrial estates, highways, electricity, water supply)

HR and Technology development :

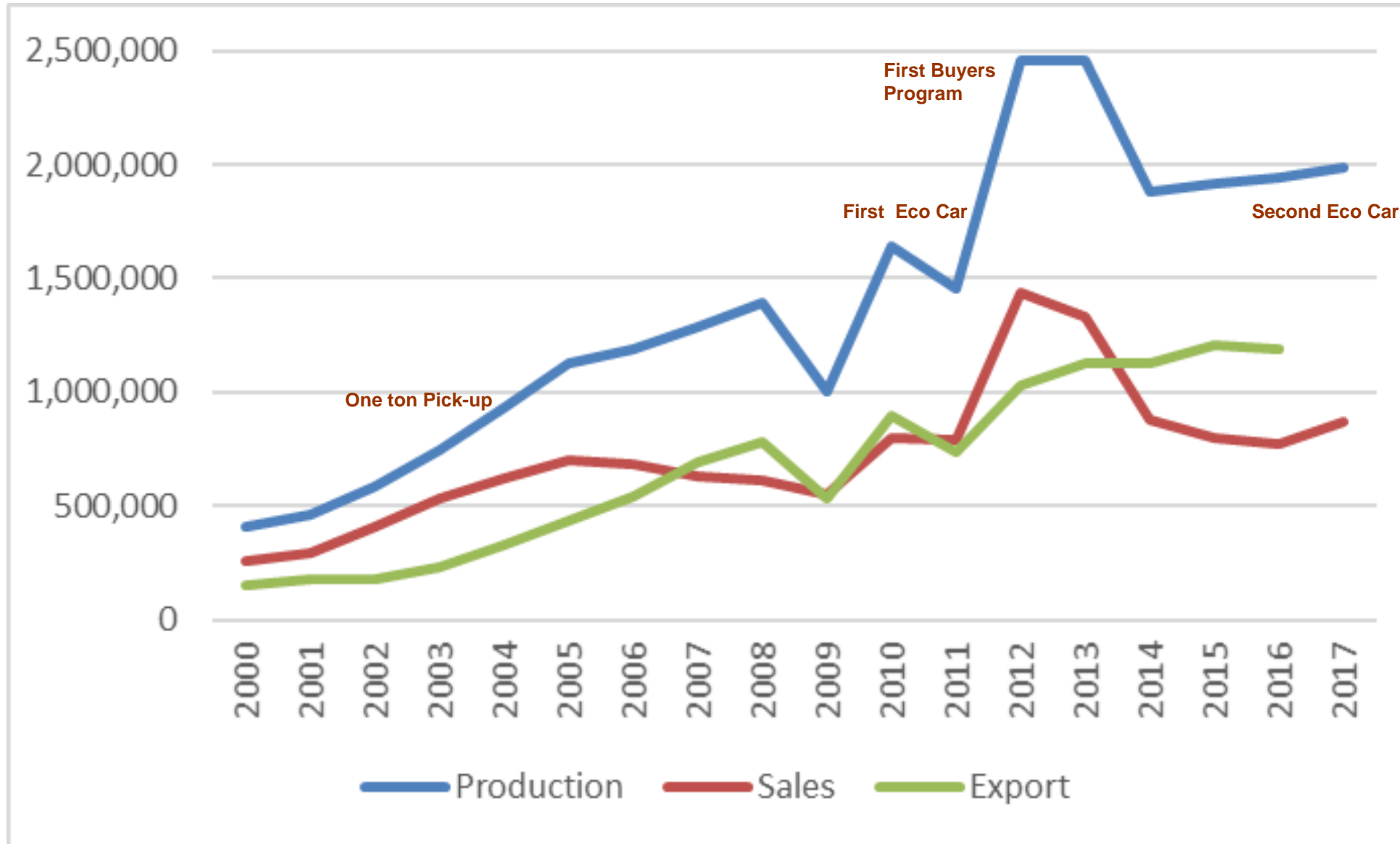
- Curriculum development (e.g. Toyota-Chulaongkorn University), Joint Project (Suzuki - King Mongkut Institute of Technology Ladkrabang)
- Sector-specific teaching and research projects in universities in cooperation with the automotive industry have become increasingly important in upgrading in the Thai automotive industry (Intarakumnerd and Gerdsri 2014).

タイ・地場サプライヤー

- 1,599 auto parts suppliers (462 Tier-1 and 1,137 Tier-2 firms) in Thailand in 2017.
- Of 462 Tier-1 firms, 31% were wholly foreign owned firms, 27% were foreign majority firms, 3% were 50% local firms, 16% were local majority firms and 23% were Thai-owned firms.
- Local Thai suppliers upgraded their status from being local Tier-1 firms into **multinational automotive parts producers**.

(e.g) **Summit Auto Seats** has developed extensive linkages with local universities in order to train their employees. Consequently, their capabilities of designing, prototyping and simulation analysis improved and led them to upgrade to being a sub-system integrator. **Thai Summit** with over 40 subsidiaries, took over one of the global leading stamping-die producers, Ogihara Corporation in Japan, in 2009, operating in Malaysia, Indonesia, Vietnam, China, Japan and USA.

タイ自動車産業 生産・販売・輸出台数



5. チェコ自動車産業

初期・共産主義時代の自動車産業

- Czechia has a long-lasting automotive tradition dating back to the end of 19th and early 20th century.
- During state socialism, the Czech economy had sizeable and relatively modern production spanning the whole spectrum of automotive industry – from motorcycles via passenger cars to trucks and buses.
- The industry was largely self-sufficient as the decisive share of all components had to be produced in Czechoslovakia.

チェコ・自由化後の自動車政策

自由化後のチェコ自動車産業は3期に分類可能

① 第1期 (90年代初旬):

■ a wide-ranging privatisation of the national firms through M&A Except for privatisation, hard industrial policy in Czechia was absent. The aim was to develop a market economy under the right-wing Civic Democratic Party (ODS).

- Volkswagen's taking over Skoda
- Privatisation of other vehicle producers (Tatra, Avia, etc.)
- Suppliers restructuring through M&A

② 第2期 (90年代後半～2000年中旬):

■ attracting green field FDI

The centrist and left-leaning administrations (CSSD: Czech Social Democratic Party) (between 1998 and mid-2006) tried to pursue some kind of industrial policies - the provision of incentives for foreign investors.

■ **Weak capacity** to coordinate between CzechInvest and the Czech Ministry of Industry and Trade (MIT), and were not able to formulate effective policy.

■ CzechInvest has provided horizontally-oriented incentives: corporate tax relief, and cash grants for training, job creation and for purchase of fixed assets.

● Toyota Peugeot Citroen Automobile Czech (TPCA) was established in 2002.

● Many automotive suppliers made green field FDI during this period.

③ 第3期 (2006年以降):

- The right-wing Civic Democratic Party (ODS) took power again in 2006, it **abolished MIT's Department of Industrial Policy**.
- The ODS also disrupted CzechInvest **by replacing experienced management with inexperienced managers** who followed the party line.
- The right-wing government avoided any abrupt drop in investment incentives provided, but instead decided, first, to refocus incentives upon investors offering technologically advanced production, and, second to stimulate competitiveness via enhanced horizontal support to R&D .

- Clear split in attitude towards attraction of FDI between national and regional leaders of ODS has been observed.
- While the national leaders were rather reluctant to provide incentives to foreign investors,
- the regional governor of Moravia-Silesia was the key figure in the investment-promotion machine supporting the major Hyundai investment in his region in 2008

チェコ・ソフト産業政策

Cluster:

- The first attempt to introduce clusters as a policy instrument therefore has been undertaken only since the Czech accession into the EU in 2004.
- In 2007 Moravian Automotive Cluster was established

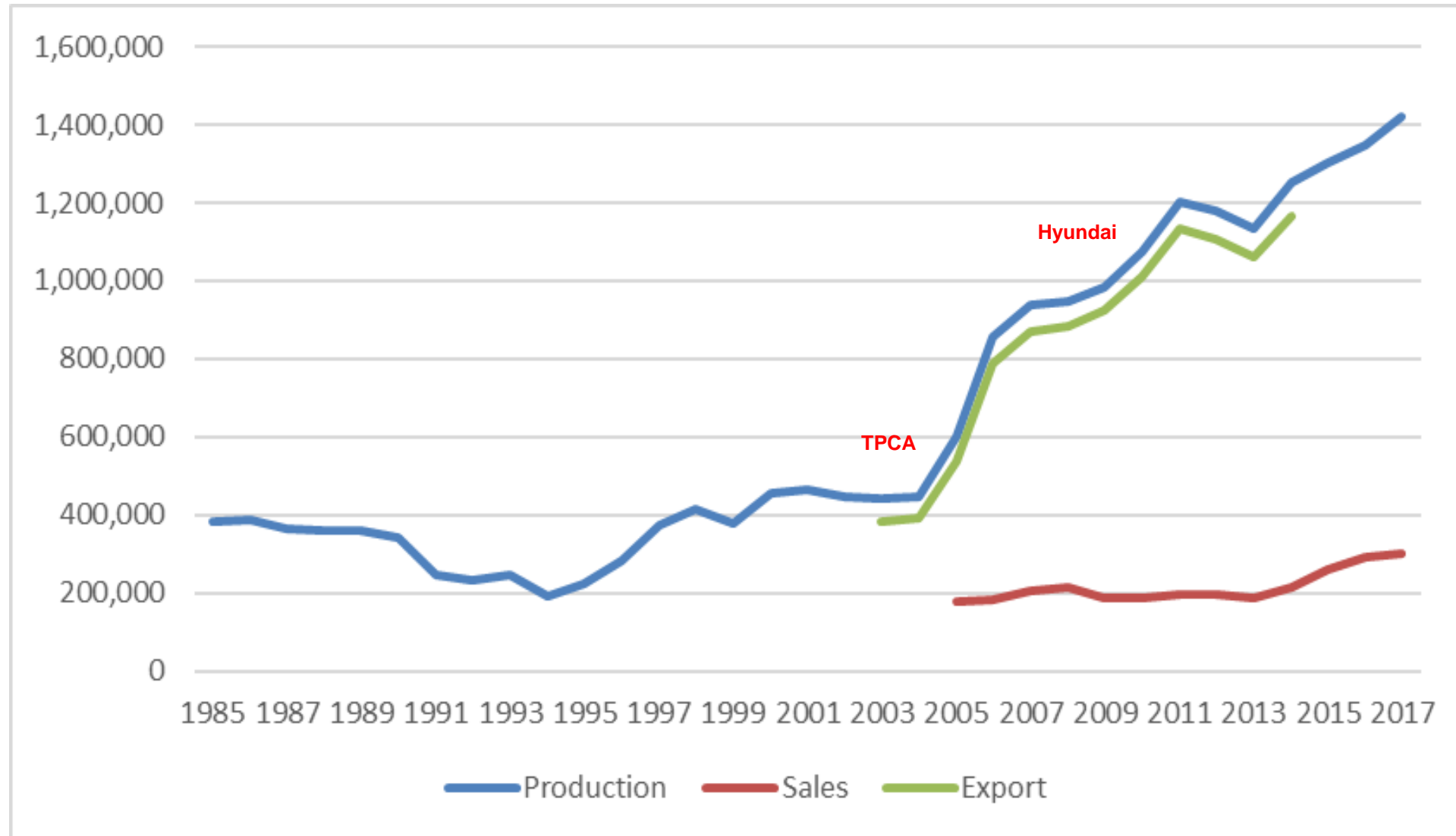
HR and Technology development :

- There is a general reluctance to align university study programmes too closely to the needs of companies
- Productivity spillovers (motivated by a need to lower production costs) have been common, **technology spillovers**, defined as diffusion of technology and know-how from foreign to domestic firms, have been less frequent

チェコ・地場サプライヤー

- There are 850-1000 suppliers in Czechia.
- Most of Tie-1 suppliers are MNCs.
- Local suppliers are Tier-2 or 3 firms.
- Former state owned suppliers was truly diverse – bankruptcy, downgrading to a position of a more generic (lower-tier) supplier.
- Upgrading is highly selective according to ownership (foreign or domestic) and tier (Pavlínek and Ženka 2011),

チェコ自動車生産・販売・輸出台数



6. タイ・チェコ自動車産業の相違点

① 歴史

Thailand : The industry was established under ISI in the 1960s

The Thai government used strong performance requirements by controlling FDI in order to create backward linkages and upgrade the LC ratio of the industry up to the late 1990s.

After liberalisation in 2000, the Thai government attracted greenfield FDI into particular segments of their automotive industry (such as pick-up trucks and Eco-car models).

Czechia: a long tradition of industry since the late 19th century

Self-sufficient industry under the state socialism era

After liberalisation in 1989, the first stage of industrial policy consisting mainly of privatisation of former state companies and of support to M&As, The second stage to attract greenfield FDI to fight growing unemployment, the third stage incentives to higher value activities, but horizontal support to R&D.

②政府の能力と政策の一貫性

- Thailand : consistent **policy strengths** in the automotive sector, despite the political upheavals in the recent years
- Czechia: the industrial policy has been shifting profoundly to reflect the **changing colour of governments**.

(e.g. the most recent, Electric Vehicle development)

The Thai government has a clear future development policy, introducing its EV action plan by targeting the development of infrastructure by 2036. In contrast, the Czech government has so far – despite its action plan for clean mobility from 2015 – not taken any substantial measures to encourage building of the necessary infrastructure.

③市場・貿易構造

Thailand :

Industry was initially oriented for domestic market and later expanded to export.

Industry is oriented for globally (strategic role in global automotive GVCs)

Czechia:

Industry has been oriented for export its relatively small population.

Industry is oriented for only regionally (EU).

Top 10 Export Destinations of HS8703, 2019 (US\$ million)

	Thailand	Value	%	Czechia	Value	%
	Total	10,259	100.0%	Total	22,470	100.0%
1	Australia	2,384	23.2%	Germany	5,638	25.1%
2	Vietnam	1,022	10.0%	Spain	2,175	9.7%
3	Philippines	952	9.3%	UK	1,770	7.9%
4	China	700	6.8%	France	1,539	6.8%
5	Mexico	466	4.5%	Poland	1,357	6.0%
6	Saudi Arabia	426	4.2%	Italy	910	4.0%
7	Indonesia	377	3.7%	Slovakia	827	3.7%
8	UAE	325	3.2%	Switzerland	685	3.0%
9	Japan	311	3.0%	Austria	679	3.0%
10	New Zealand	287	2.8%	Belgium	674	3.0%
	Others	3,009	29.3%	Others	6,216	27.7%

④ 發展政策 — 開發指向主義 (developmentalism)

There is no doubt that FDI is the most crucial driver for the development of the automotive industry in both countries. Nevertheless, *developmentalism* in the industry clearly differs.

Thailand : *developmentalism*

- The Thai government selected **which vehicle models (product champions)** and **components** should be developed in the country through their vertical industrial policy.
- Thailand successfully attracted R&D centres for the models. Toyota and Isuzu design and develop the global model in Thailand (not in Japan) and export to all over the world including Japan.
- The Thai government **strategically identified and selected the function of the model in global production networks.**

Czechia:

- R&D has been growing, but limited to development of advanced, but non-core technology in Czechia, such as development of various electronic systems and sensors.
- Core technologies such as engines or gearboxes are being developed outside of the country.

⑤ 地場サプライヤー

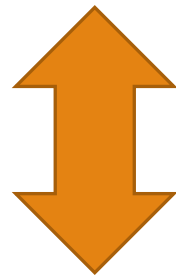
- Thai local parts suppliers play a far more significant role in the industry in comparison with Czechia where most of local suppliers are now merely serving as a Tier-2 or Tier 3 suppliers.
- Some Thai local firms have upgraded into becoming MNC suppliers that perform co-ordination functions in regional (also global) production networks.

7. 結論

Thailand and Czechia have been pursuing vastly different models of industrial policy.

Thailand:

The *neo-developmental state* of Thailand employs **vertical industrial policies** and conduct **proactive industrial development**.



Czechia:

The *embedded liberal state* of Czechia **employ horizontal industrial policies** – often *ad hoc* to attract particular foreign investors - and conduct industrial development, enjoying various **passive benefits from FDI**.

タイ・チェコ自動車産業政策 概要

Industrial Policy	Thailand	Czechia
Hard Policy	LCR, MDP until 1999	State-Socialism until 1989
(regulations)	WTO rules	WTO rules, EU rules
Soft Policy	HR, Innovation, Cluster	HR, Innovation, Cluster (S3)
Vertical Policy	AMPs / EV Action Plan	No (Prohibited)
(complementing hard policy)	Local production incentive	No
Horizontal Policy	General incentives for FDI	General incentives for FDI
Policy Consistance	Yes	No

タイ自動車産業まとめ

- Thailand since the early 2000s have adjusted their vertical policies in compliance with - or sometimes effectively to circumvent - WTO rules.
- Thailand was successful in stimulating the industry by using a *product champion* strategy in association with effective fiscal policy, tactically linked their incentives for FDI with local production criteria in order to encourage local technological capacity.
- The role of local capital in its supporting industry is quite significant.
- Soft industrial policy has been successfully upgrading the Thai automotive industry.
- Despite the political upheavals in Thailand, its policy has been consistent, and the Thai concept of *active developmentalism* has never changed fundamentally.

チェコ自動車産業まとめ

- Czechia offers geographical advantages, a good quality, yet relatively inexpensive labour and a long industrial tradition with good technical capabilities.
- Czechia has been transformed into export platforms for large MNCs supplying particularly West European markets.
- Czechia is highly dependent upon foreign investors, while the extent of spillovers to indigenous companies is limited.
- Czech policy has been inconsistent.
- Despite the much stronger history of the Czech automotive industry, the Czech automotive industry has sunk into a more peripheral position than Thailand within this highly globalised industry.

参考文献

- Amsden, Alice (1989) *Asia's Next Giants: South Korea and Late Industrialization*, New York, Oxford University Press.
- Birch, Kean and Vlad Mykhnenko (2009) Variety of Neoliberalism? Restructuring in Large Industrially Dependent Regions across Western and Eastern Europe, *Journal of Economic Geography* 9(3): 355-380.
- Bohle, Dorothee and Bela Greskovits (2007) Neoliberalism, Embedded Neoliberalism, and Neocorporatism: Paths towards Transnational Capitalism in Central-Eastern Europe, *West European Politics*, 30(3): 443-466.
- Fourin (2017) ASEAN Jissha Sangyo (ASEAN Automotive Industry), Nagoya, Fourrin.
- Intarakumnerd, Patarapong and Nathasit Gerd Sri (2014) Implications of Technology Management and Policy on the Development of a Sectoral Innovation System: Lessons Learned Through the Evolution of Thai Automotive Sector, *International Journal of Innovation and Technology Management*, 11(3):1440009-1-19.
- Kim Woosang and Yeonho Lee (2000) Prospects for East Asian Economic Regionalism in the 21st Century, *Global Economic Review*, 29(2): 83-102.
- Myant, Martin and Jan Drahekoupil (2012) International Integration, Variety of Capitalism and Resilience to Crisis in Transition Economies, *Europe-Asia Studies*, 64(1):1-33.
- Natsuda, Kaoru, Otsuka, Kozo and Thoburn, John (2015) Dawn of Industrialisation? The Automotive Industry in Indonesia, *Bulletin of Indonesian Economic Studies*, 51(2):1-22.
- Natsuda, Kaoru, Segawa, Noriyuki and Thoburn, John (2013) Liberalization, Industrial Nationalism, and the Malaysian Automotive Industry *Global Economic Review*, 42(2):113-134.

- Natsuda, Kaoru and Thoburn, John (2013) Industrial Policy and the Development of the Automotive Industry in Thailand, *Journal of the Asia Pacific Economy*, 18(3):113-134.
- Natsuda, Kaoru and Thoburn, John (2014) How Much Policy Space Still Exists Under the WTO? A Comparative Study of the Automotive Industry in Thailand and Malaysia, *Review of International Political Economy*, 21(6): 1346-1372 .
- Natsuda, Kaoru and Thoburn, John (2018) Industrial Policy and the Development of the Automotive Industry in the Philippines, *Canadian Journal of Development Studies*, 39(3):371-391.
- Nolke, Andreas and Arjan Vilegenthart (2009) Enlarging the Variety of Capitalism: The Emergence of Dependent Market Economies in East Central Europe, *World Politics*, 61(4): 670-702.
- Pavlínek, Petr and Jan Ženka (2011) Upgrading in the Automotive Industry: Firm-Level Evidence from Central Europe, *Journal of Economic Geography*, 11(3): 559-586.
- Pavlínek, Petr and Pavla Žížalová (2016) Linkages and spillovers in global production networks: firm-level analysis of the Czech automotive industry, *Journal of Economic Geography* 16(2): 331-363.
- Wade, Robert (1990) *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*, Princeton, Princeton University Press.

ご清聴ありがとうございました！

Thank you for your attentions!

立命館アジア太平洋大学 国際経営学部

教授 夏田 郁

natsuda@apu.ac.jp