Industrial impact analysis of foreign direct investment on economic development in Cambodia

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Abstract

Purpose – Cambodia's sustained and robust growth performance since the post-reform era in 1993 has been attributed to the boom in inward foreign direct investment (FDI) attracted to the country's labor-intensive industries, where it has comparative advantages. The purpose of this study is twofold. First, it aims to assess the consistency between Cambodia's revealed comparative advantage in exports and its sectoral inward FDI. Second, it examines the relationship between industry-level FDI and growth performance by accounting for heterogeneity across industries.

Design/methodology/approach – The paper uses descriptive methods and an industry-level dataset provided by the Council for the Development of Cambodia to elucidate the issue. Additionally, it applies instrumental variable two-stage least squares (IV-2SLS) regression to investigate the impact of industry-specific FDI on economic growth from 1994 to 2017, which also aims to address the endogeneity issue.

Findings – On the one hand, our research finds that Cambodia's FDI has been attracted to sectors in which it has a comparative advantage during the aforementioned period. On the other hand, both FDI and the comparative advantage index significantly impact economic growth in Cambodia. The greater the flow of foreign investment into sectors with comparative advantage, the stronger the impetus for growth.

Originality/value – This study fills a gap in the literature and contributes to a better understanding of the relationship between FDI and economic growth in Cambodia. It is the first paper to investigate the heterogeneity of industry-specific FDI and provides practical recommendations for policymakers to effectively harness foreign investments and avoid malign FDI inflows.

Keywords Economic growth, FDI, RCA, New structural economics

Paper type Research paper

1. Introduction

Cambodia had a splendid civilization and was one of the most prosperous nations in the pre-industrial world. However, nowadays, the country and its overall economy are small, weak and in a transitional phase (Acemoglu and Robinson, 2012; Hal and Menon, 2013). After decades of war, the rehabilitation of economic reforms and development strategies began in the early 1980s, known as the "year zero" departure (Hughes, 2003; Mycliwiec, 2004). Recent evidence indicates that Cambodia's per capita income dwindled from the 1970s to the early 1990s, but has since more than doubled after the adoption of reforms and a shift in

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development strategy. This impressive turnaround would not have occurred without the government's transformation from an inward-looking to an outward-oriented strategy, making Cambodia a recognized example of development success.

Investment is critical to the development of labor-intensive industries with comparative advantages. However, developing countries like Cambodia often face a significant shortage of domestic savings and insufficient capital accumulation. As a result, attracting foreign direct investment (FDI) is essential for the country (ADB, 2014). To this end, Cambodia has adopted a policy of promoting the labor-intensive manufacturing sector, which plays a vital role in the country's economy and is consistent with its comparative advantages. The promotion and success of this sector have resulted in attracting FDI and endeavors to implement export-led growth policies that take advantage of the country's backwardness. FDI inflows have increased during the post-reform period, leading to positive per capita GDP growth. Indeed, FDI has also been instrumental in establishing production bases, promoting exports, diversifying industries and improving economic efficiency. Consequently, Cambodia has sustained annual economic growth of 7.7% for over two decades.

Against this background, the study aims to shed light on two fold issues. First, it aims to assess the consistency between the revealed comparative advantage of exports and sectoral inward FDI over the last decades by descriptively analyzing previously untapped data on FDI inflows. Second, by accounting for industry heterogeneity, this study examines the relationship between industry-level FDI and growth from 1994 to 2017. To achieve this, we use panel data regressions to test whether the impact of FDI on growth differs across industries. Our results show that FDI has been attracted to industries in which Cambodia has a comparative advantage. Furthermore, FDI and the comparative advantage index proxy variable significantly determine growth. Moreover, the more foreign investment flows into the comparative advantage sector, the greater the growth impetus prevails.

2. Related literature

Foreign investment is crucial in developing countries with low domestic savings and insufficient capital investment as it provides long-term financial resources, advanced technologies, managerial skills, intermediate inputs and know-how in production activities that complement domestic resources. FDI also provides social networks and access to foreign markets, which are often lacking in developing countries, and stimulates domestic investments, productivity and positive externalities with spillover effects, leading to increased output and economic growth (Desai *et al.*, 2005; Iamsiraroj and Sasi, 2016; Makiela and Ouattara, 2018; Kenh, 2023). Since the 1980s, developing countries have proposed policies to attract FDI, viewing it as an essential tool to supplement domestic savings, promote exports, create jobs and reduce poverty. Cambodia has received a large inflow of FDI, which is considered a crucial tool for economic development (Cuyvers *et al.*, 2011; World Bank, 2018).

Limited research has examined the heterogeneous impacts of FDI across different sectors, possibly due to data constraints, particularly in developing countries. However, evidence suggests that the growth effects of FDI may vary across primary, manufacturing and service sectors, with differences in productivity potential due to technology spillovers. For example, Alfaro (2003) found a negative effect of FDI in the primary sector and an inconclusive effect in the service sector. On the other hand, Fillat and Woerz (2011) conducted an industry-level analysis of 35 countries in Asia and Eastern Europe throughout 1987–2002 and found that FDI's positive relationship with growth and productivity is more significant in catching-up economies when it coincides with high investment or export orientation. They concluded that FDI is especially significant in labor-intensive and resource-based industries, as these sectors are crucial in the early stages of the catching-up process.

The studies on FDI in Cambodia are of particular interest to this paper. Some literature found significant positive growth effects of FDI inflows. Sothan (2017) examined the relationship between FDI and growth in Cambodia from 1980 to 2014, and found that FDI causes the growth relationship by augmenting much-needed physical capital. Ngov (2011) also investigated the positive impact of FDI on Cambodia's economy and emphasized the importance of establishing special economic zones to further attract FDI and absorb technological spillovers. Similarly, Cheong Tang and Wong (2011) found that FDI inflows not only enhance Cambodia's commodity exports but also indicate positive externalities of technological spillover, marketing techniques and management skills. However, Mah (2017) found that FDI-induced growth effects are less pronounced, and weak institutions are the main challenges that slow down the positive economic impacts of FDI on growth, consistent with Hal and Menon (2013)'s findings.

Meanwhile, FDI inflows can be a double-edged sword for an economy. Although FDI brings economic benefits, it may also lead to complacency and discourage local firms' participation (Fillat and Woerz, 2011). When domestic ownership growth is slow, there is a limited occurrence of economic linkages, imitation and spillover effects, resulting in a sluggish pace of development of domestic firms (Javorcik, 2004). For instance, Cambodia's garment sector has become overly reliant on foreign investors over the past two decades, with domestic ownership accounting for less than 7% (Chhair and Ung, 2013). Cuyvers *et al.* (2011) asserted that wholly foreign-owned enterprises in Cambodia have gained momentum, outperforming joint ventures with foreign firms in terms of annual investment amounts. The former accounted for 60.6% and the latter for 39.4% between 1994 and 2004. Thus, FDI inflows have had a limited impact on the growth of the manufacturing sector in Cambodia. However, the literature on FDI-induced growth in Cambodia is limited as it only uses aggregated data and ignores industry-level FDI inflows. This paper addresses this gap by examining the relationship between industry-level FDI inflows and growth in Cambodia using panel data regression to investigate the variations in the impact of FDI across industries.

3. An overview of recent Cambodia's economic development

Political and social unrest plagued Cambodia for decades, particularly during the 1970s and 19880s. However, after reaching a peace agreement in 1991, the country shifted its focus toward development through national policies. The first five-year development plan from 1986–1990 prioritized agriculture, infrastructure and reconstruction to restore social and economic stability. In 1994, a comprehensive national program was formulated to achieve economic stability, structural adjustment and a doubling of GDP within a decade. This policy framework became the basis for subsequent national plans, including the adoption of a socioeconomic development plan in 1996 to foster labor-intensive industries, upgrade the labor force with education and training and improve Cambodia's comparative advantage in the apparel industry. The government pursued a national poverty reduction strategy in 2002, and in 2004, it adopted a rectangular strategy for growth, employment, equity and efficiency (JICA, 2002; ADB, 2014).

Furthermore, in the late 1980s, many developing countries abandoned the comparative advantage-defying (CAD) strategy, which prioritizes highly capital-intensive industries, and led to widespread failures, including the collapse of the former Soviet Union and Eastern Europe's development model. As a result, Cambodia lost economic support. In contrast, the export-oriented growth policies of the comparative advantage-following (CAF) strategy, which prioritizes labor-intensive industries with government support, led to miraculous growth performances in East Asian economies. Cambodia chose to emulate successful East Asian models by following comparative advantages and capitalizing on backwardness

(Gerschenkron, 1962). The market mechanism determined factor prices, while the government continuously facilitated the development of labor-intensive industries. As a result, Cambodia has experienced dynamic growth over the past two decades, averaging 7.7% per year since the early 1990s. Despite some fluctuations due to external shocks, the ADB has identified the country as a new Asian economic tiger (OECD, 2017; World Bank, 2018).

4. Economic policy reforms to chase FDI: a retrospect

Cambodia has adopted distinctive policies to promote economic growth. The first of these policies was the critical decision to let the market speak. According to Naron (2012), Ear (1997) and Chhair and Ung (2013), Cambodia's recent success can be attributed to its adoption of the policy prescriptions of the Washington Consensus in the late 1980s and early 1990s. The country transitioned from a command to a laissez-faire capitalist economy, and from domestic circulation to an export-oriented approach, which was called "Economic Liberalization in Cambodia." Most restrictions on foreign capital inflows, industrial transfers and ownership were abolished (Cheong Tang and Wong, 2011; Ngov, 2011). As a result, Cambodia has become one of the most open economies to foreign investment, particularly in sectors with the most comparative advantages, such as natural resources in the early 1990s and labor-intensive industries since 1996 (OECD, 2018).

Although Cambodia has implemented some of the Washington Consensus policies, including the gradual privatization of state-owned enterprises in the early 1990s, this move did not spur growth. It led to the collapse of nonviable state-owned firms and increased unemployment. Countries that fully embraced the Washington Consensus often experienced "lost decades," as shown by the global development experience. This approach also became a social burden for many Eastern European countries. This highlights the lack of understanding of the unique characteristics of developing economies (Easterly, 2001; Lin, 2012). Cambodia's success can be largely attributed to a shift in development thinking from prioritizing capital-intensive industries to embracing labor-intensive industries in the early 1990s. The government did not have the economic mindset to support heavy manufacturing industries to catch up with developed countries. Instead, it prioritized small domestic enterprises in labor-intensive industries. This approach, known as the comparative advantage-development (CAF) strategy, focused on the domestic private economy and countered the collective economy starting in the late 1980s (Sen, 2011).

Severe budgetary constraints, similar to those experienced by other developing countries, prevented the Cambodian government from adopting the catch-up development idea, also known as the comparative advantage-defying (CAD) strategy. In the late 1980s, Cambodia relied on foreign aid to address its financial challenges (JICA, 2002). Although the country is rich in natural resources, the limited size of its resource base is insufficient to support heavy industries. Recognizing the endowment structure characteristics of developing countries, Cambodia, as a backward economy, leveraged its unique features, such as a large pool of young, unskilled and abundant labor, as well as natural resources and the dynamic and robust growth of its neighboring countries (Guimbert, 2009; Lin, 2010). Therefore, following the CAF approach, the government focused on developing labor-intensive and resource-based industries as the only viable solution. While the implementation of the Washington Consensus played a role in catalyzing the reform process, a change in development strategy thinking was crucial for its long-term success.

The firm's constraints have been actively addressed through the facilitation of various roles. Key factors for development have been emphasized to include improvements in physical infrastructure such as roads, water, electricity and human capital (Sen, 2011). In terms of social infrastructure, the investment law was drafted and approved in 1994, revised

in 2003 to incentivize foreign investors and is considered relatively liberal compared to other countries. This law guarantees the market economy process and ensures that the government cannot take control of the production process. It offers generous incentive packages to domestic and foreign investors, such as low corporate taxes. In Cambodia, corporate income tax is levied at a low rate of 9%, compared to some other ASEAN countries, such as Malaysia, which has a rate of 30% (Ear, 1997; Cheong Tang and Wong, 2011). The law also guarantees that investors' private property will never be expropriated by any nationalization policy, which alleviates the fear of expropriation and increases the trust between investors and the government (Biglaiser and DeRouen, 2006). Furthermore, investors are granted tax holidays for up to six years, and qualified investment projects are exempt from import duties on equipment, machinery and so forth. More importantly, investors are allowed to either repatriate or reinvest their profits with the provision of special depreciation allowances (OECD, 2018).

Second, in the 1990s, Cambodia adopted a policy of capital account deregulation to attract investments and allowed for the liberalization of its financial markets. This policy permitted developing countries like Cambodia to receive capital inflows from advanced countries to finance growth (Broner and Ventura, 2010). Moreover, under the financial liberalization policy, a free-floating foreign exchange system was adopted, which provided convenience for investors. Meanwhile, Cambodia's high dollarization has deprived the country of seigniorage and weakened the authority's ability to implement discretionary monetary policy, but it has also been conducive to managing inflationary fluctuations, stabilizing prices, attracting investments and promoting trade (Hal and Menon, 2013). Third, since the early 1980s, Cambodia has embarked on economic liberalization, and its trade policies have become more relaxed since 1987, attracting many foreign investors, as Cambodia's openness is relatively high compared to other countries, increasing from 48.72% in 1994 to 123.56% in 2019. Trade and capital flows are complementary in developing countries, indicating that policies that support trade integration increase capital returns, thereby stimulating capital inflows (Antras and Caballero, 2009). Additionally, since 2005, to attract more foreign investment, the government has formulated a legal framework to establish special economic zones and industrial parks to attract investments and diversify the traditional industrial base (Sotharith, 2011; Hill and Menon, 2014; Warr and Menon, 2016; OECD, 2018).

Cambodia's membership in the Association of Southeast Asian Nations (ASEAN) and the World Trade Organizations (WTO) in 1999 and 2003, respectively, along with trade agreements, has provided opportunities for significant investment inflows. Since 2003, Cambodia has received trade privileges, such as Everything But Arm (EBA), Most-Favored-Nation treatment (MFN) and Generalized System of Preferences (GSP). These privileges have reduced export costs and attracted FDI to Cambodia's labor-intensive industries that have comparative advantages and export to developed countries (Cheong Tang and Wong, 2011; Vixathep, 2013).

While all the policies that have been implemented are essential, the development mindset following CAF or CAD is the fundamental cause of success. When an economy follows CAF strategies determined by its time-varying factor endowments, all industries will be the most competitive worldwide, leading to an inevitably high level of trade openness. The viable firms will be able to share a piece of the pie, while the nonviable firms will exit the market. The return on investment will be high, attracting large foreign investments. Before the 1990s, Cambodia's comparative advantage was in the natural resource-based sector, but it shifted to the labor-intensive industries in the late 1990s due to changes in the endowment structure. Cambodia has become an attractive destination for investors from different countries. FDI inflows have shown significant fluctuations, particularly in 2003, 2009 and 2015, due to political issues, conflicts and the global economic crisis. However, they have indicated an overall significant upward trend. While capital inflows come from all over the world,

Cambodia's largest sources of FDI inflows in recent years have been China, South Korea, the US, Thailand and Vietnam.

5. FDI, RCA and technological choice index

In the early 1990s, Cambodia implemented the CAF strategy to attract foreign investment in industries such as agriculture, manufacturing, construction and tourism. Foreign investors could participate through domestic-foreign equity joint ventures or wholly foreign-owned enterprises (Cuyvers *et al.*, 2011). However, from 1994 to 2017, there was a significant imbalance in the sectoral distribution of FDI inflows, with the majority of investments going to export-oriented labor-intensive industries such as garments, textiles and apparel. Despite this, Cambodia's relatively small domestic market has limited FDI inflows to some extent. Nonetheless, most foreign investments in these industries were seen as exploiting low-cost opportunities and Cambodia maintained a comparative advantage in these industries due to its factor endowments. The largest FDI inflows were in labor-intensive industries, particularly garments and textiles, accounting for 65.1% of total FDI inflows. Additionally, significant amounts of capital flowed into various segments of the traditional services sector, which is the second-largest recipient of foreign investments. Tourism-related activities played a crucial role in this sector, with the most compelling investment being the hotel and restaurant industry, accounting for 19.6% of FDI between 1994 and 2017. The tourism sector was a crucial component of Cambodia's development path, owing to the country's extensive stock of tourism sites and its comparative advantages in this sector attracting many tourists every year. Consequently, foreign investors may establish a commercial presence to operate hotels, restaurants, travel agencies and various tourism services. However, FDI in agriculture and agro-industry remained limited, representing only 5% of total investment.

Since 2003, there has been a substantial increase in capital inflows, especially in the industrial sector, with manufacturing consistently contributing more to GDP than the agricultural sector. The FDI in these industries mainly exploits trade opportunities in advanced economies. The FDI inflows increased from US$124 million in 1993 to US$520 million in 2009, exceeding US$2.4 billion in 2018. The approved investments have been snowballing, with an annual growth rate of 38.4% (World Bank, 2018). In 2017, the industrial sector accounted for a significant portion of Cambodia's GDP, with a share of 32.7%, up from 12.6% in the past, and its average annual growth rate over the past 15 years was estimated at 12.4%, surpassing the agricultural and service sectors. The industrial sector was also the leading sector in attracting capital flows, with China being the largest investor, accounting for 21.81% of cumulative approved FDI from 1994 to 2017, followed by South Korea, the UK, Japan and Malaysia, primarily focusing their investments mainly on labor-intensive industries such as textiles and garments.

Specifically, Table 1 provides a comprehensive overview of foreign investment projects in Cambodia across different sectors, regardless of their absolute value or percentage investment. The table reveals that Cambodia's labor-intensive industries are the primary targets for foreign investment. Between 1993 and 2017, more than 1,600 projects attracted more than US$65 billion in actual paid-in FDI. The garment and textile industry received the largest proportion, accounting for about 30% of total foreign investment (Cheong Tang and Wong, 2011; World Bank, 2018). Initially, foreign investment focused on agriculture, including crops, livestock, food processing, forestry and fisheries (Saing *et al.*, 2012). From 1991 to 1993, US$1.2 billion was invested in 638 projects mainly in agriculture, tourism, hotels, construction and manufacturing (Cuyvers *et al.*, 2011). However, since 1994, investment has shifted to highly concentrated labor-intensive industries, reflecting changes in revealed comparative advantages. In 1994, food processing, garment and

Industry	Project	FDI inflow	FDI share	Agriculture	Project	FDI inflow	FDI share
Garment	1,095	3692.38	21.16	Agriculture	257	6101.58	100
Energy	41	3560.95	20.41	Agro-industry	98	3537.04	57.97
Cement	13	1303.30	7.47	Rubber	66	1601.92	26.25
Shoes	137	777.60	4.46	Rice mill	27	551.74	9.04
Wood processing	63	569.27	3.26	Plantation	42	253.60	4.16
Mining	64	548.78	3.15	Agriculture	10	95.22	1.56
Food processing	64	357.02	2.05	Animal farming	9	48.31	0.79
Petroleum	13	267.03	1.53	Flour	3	6.64	0.11
Building material	43	254.00	1.46	Fishery	1	4.95	0.08
Bag	45	207.93	1.19	Tobacco plantation	1	2.16	0.04
Tobacco	30	153.43	0.88				
Electronics	20	148.06	0.85				

Service	Project	FDI inflow	FDI share	Tourism	Project	FDI inflow	FDI share
Infrastructure	34	3284.55	25.76	Tourism-related	39	11118.43	42.87
Construction	27	3072.61	24.09	Tourism center	50	10779.25	41.56
Telecommunication	32	2100.11	16.47	Hotel	104	4036.98	15.57
Transportation	9	2032.05	15.93				
Services	26	1284.36	10.07				
Shopping mall	10	690.52	5.41				
Health services	9	142.66	1.12				
Education	3	100.19	0.79				
Water supply	5	20.09	0.16				
Engineering	4	18.60	0.15				
Media	4	6.54	0.05				

Source(s): Data on FDI inflows are provided by the Council for the Development of Cambodia (CDC)

Table 1.
FDI in Cambodia by industry 1994–2017 (US$ millions)

tobacco accounted for 24.36%, 25.67% and 43.95% of the industrial sector's total FDI, respectively. Construction and tourism were the main driving forces in the services industry, which attracted 78.18% of total FDI. The share of FDI in the agricultural sector remained relatively low.

In 2003, US$251 million was invested in the industrial sector, which accounted for 35.60% of the total investment, mainly concentrated in labor-intensive industries such as food processing and garment, accounting for 45.98 and 32.11%, respectively. The service sector, including infrastructure, shopping malls and telecommunications, accounted for 14.76% of total investment, while tourism accounted for 48.66%. By 2010, total foreign investment increased to US$2.69 billion, driven by the energy investment boom, which accounted for 21.88% of total investment. Garment and food processing, as well as other labor-intensive industries, accounted for 6.77 and 13.19% of industrial sector investment, respectively. In 2017, US$5.21 billion was invested in fixed assets, with 13.92% in the industrial sector, mainly in bag production, building materials, cement and garment industries, which accounted for 13.11%, 21.48%, 11.34% and 29.43%, respectively. The service sector accounted for 20.12% of total investment, with foreign investment in transportation services

contributing significantly. Tourism investment saw a significant surge, accounting for 60.69% of total investment due to the increasing number of tourists. However, foreign investment in the agricultural sector remained relatively stable, accounting for about 5%.

Overall, FDI inflows in Cambodia between 1994 and 2017 have been closely linked to the revealed comparative advantages (RCA) index (Balassa, 1965). Most foreign investment has been concentrated in labor-intensive industries such as garments, energy, cement, shoes, wood processing, mining and food processing, where Cambodia has a comparative advantage and high competitiveness based on its factor endowments. The RCA index is used to determine whether a product has a comparative advantage compared to other countries or the world. By calculating the RCA index, it is possible to determine which industries Cambodia has been competitively exporting in recent years. The question is whether the exports of these industrial products are aligned with the investments made by these industries.

Data for the RCA index are obtained from World Integrated Trade Solutions (WITS) and United Nations Conference on Trade and Development Statistics (UNCTADSTAT). However, Cambodia's RCA index is only calculated from 1995 onward. Data before that must be obtained from Vixathep (2013). The RCA index is calculated using the 1-digit Standard International Trade Classification (SITC) for the years 1985–2018, to show the evolution of Cambodia's comparative advantage structure since its reforms. Table 2 presents the trend of RCA. During the turbulent period from 1985 to 1990, Cambodia's comparative advantages were mainly in primary products such as food and live animals (S0), crude materials (excluding fuels) (S2), beverages and tobacco (S1) and exports of basic manufactured goods (S6). At that time, Cambodia's economy and exports were mainly dependent on agriculture and natural resources, with a less developed industrial sector. Thus, the comparative advantages were mainly revealed in agriculture and natural resources rather than in manufactured products.

However, in the mid-1990s, the export trend in Cambodia shifted dramatically. The existing comparative advantage products were transformed into manufacturing products (S8) and crude materials (S2), including labor-intensive manufacturing industries such as clothing, textiles and footwear. These industries have become Cambodia's most dynamic sectors, showing the effectiveness of the policy adopted in 1996. The government implemented a socioeconomic development plan, supported by a public investment plan, with the primary goal of cultivating labor-intensive industries. Since then, the comparative advantage structure of exports has shifted toward labor-intensive products such as clothing

SITC-sectors-1-digit	1985	1990	1995	2000	2005	2010	2015	2018
S0 - Food and live animals	1.11	0.80	0.71	0.03	0.40	0.25	0.20	0.23
S1 - Beverages and tobacco	1.11	n.a	0.35	0.34	1.40	0.65	0.65	0.47
S2 - Crude materials (excluding fuels)	2.69	3.97	3.82	0.98	0.39	0.57	0.53	0.46
S3 - Mineral fuels and lubricants	n.a	n.a	0.04	0.01	0.00	0.62	0.27	0.12
S4 - Animal, vegetable oils, fats	n.a	n.a	0.80	0.13	0.49	1.15	1.94	1.99
S5 - Chemicals incl. related products	0.44	0.22	0.24	0.00	0.01	0.01	0.01	0.02
S6 - Basic manufactured goods	0.90	0.28	0.38	0.08	0.10	0.47	0.20	0.37
S7- Machinery, transport equipment	0.33	0.14	0.16	0.01	0.02	0.10	0.15	0.14
S8 - Manufactured goods	0.86	0.55	1.28	14.12	18.04	18.67	15.74	16.70
Export volume (US$ billion)	0.01	0.04	0.31	1.39	3.02	5.59	8.54	12.70

Table 2.
One-digit SITC RCA index of Cambodia's exports

Note(s): Cambodia's labor-intensive industries, such as textiles, apparel and footwear products, are classified as manufactured goods

Source(s): Authors recalculated using data from the World Integrated Trade Solution (WITS), and Vixathep (2013)

and footwear. During this period, the inflow of foreign investment and the scale of comparative advantage production had expanded rapidly, contributing significantly to economic growth.

FDI in Cambodia has primarily been directed toward labor-intensive industries, specifically in the production of apparel and footwear production for export. The main sources of FDI come from countries such as China, South Korea, Taiwan-China, ASEAN and Hong Kong SAR-(China). Cambodia's comparative advantage of abundant labor and low capital has been leveraged to make labor-intensive products the country's main exports since the mid-1990s. The competitiveness of these industries has increased significantly (Vixathep, 2013), leading to further foreign investment. However, the relative importance of agriculture and resource-based sectors in Cambodia's comparative advantage structure has weakened. This is evidenced by the decline in RCA indexes of SO, S1 and S2, and the rise in the RCA of S8 and S4, as shown in Table 2.

Although the RCA index is widely recognized as an indicator of a product's comparative advantage, it can also be the result of government interventions, such as subsidies, tariffs and export incentives. Therefore, the RCA index may not provide a complete picture of a country's future comparative advantage. To some extent, the RCA index cannot guarantee that Cambodia's manufacturing sector is aligned with its comparative advantages (Le, 2010; Lin and Xu, 2016). In this context, the technological choice index (TCI) [1] is used to complement the RCA index to determine whether the government is intervening or subsidizing the manufacturing industry for export purposes (Lin, 2012). As long as it can be proven that there is no government intervention or subsidy to improve production capability, the RCA index may be sufficient to indicate the comparative advantage of export products.

It is worthwhile to compare Cambodia with neighboring countries, particularly with selected ASEAN peer countries. Based on the TCI in the early 1990s, Cambodia had almost the lowest TCI among these countries. This suggests that the government had not defied its comparative advantages by prioritizing capital-intensive industries in manufacturing development, but instead concentrated on developing labor-intensive industries. Indeed, this development strategy is appropriate for Cambodia as a developing country where labor abundance is a crucial endowment factor. This strategy represents a complete transformation from the CAD to the CAF strategy since the early 1990s. Using the same method as Lin (2012), the TCI is recalculated for Cambodia and neighboring countries, revealing an average TCI value of around 1.92 from 1994 to 2014 for Cambodia, which is not much deviated from 1. This indicates that Cambodia has not strayed much from its comparative advantages. Figure 1 compares Cambodia's TCI with selected ASEAN countries, showing a relatively low value for Cambodia's TCI compared to other countries. This indicates that the government has had relatively little intervention in the industrialization process, which has been a key determinant of economic growth for the last two decades.

Overall, the descriptive statistics on foreign investment indicate that Cambodia has attracted trade-oriented FDI in industries where it has a comparative advantage. These FDI inflows have changed over time, as Cambodia's comparative advantage in certain export products has shifted. Additionally, we provide evidence that government intervention to counterbalance comparative advantage has been significantly less than in other counties over the last two decades. As a result, increased RCA and decreased TCI led to greater FDI in sectors where Cambodia has a comparative advantage. This influx of FDI has undoubtedly contributed to increased trade and economic growth.

6. Estimation strategy and econometric models

To analyze the relationship between industrial heterogeneity FDI and economic growth, this section employs a panel regression model, following the approach of Alfaro (2003) and

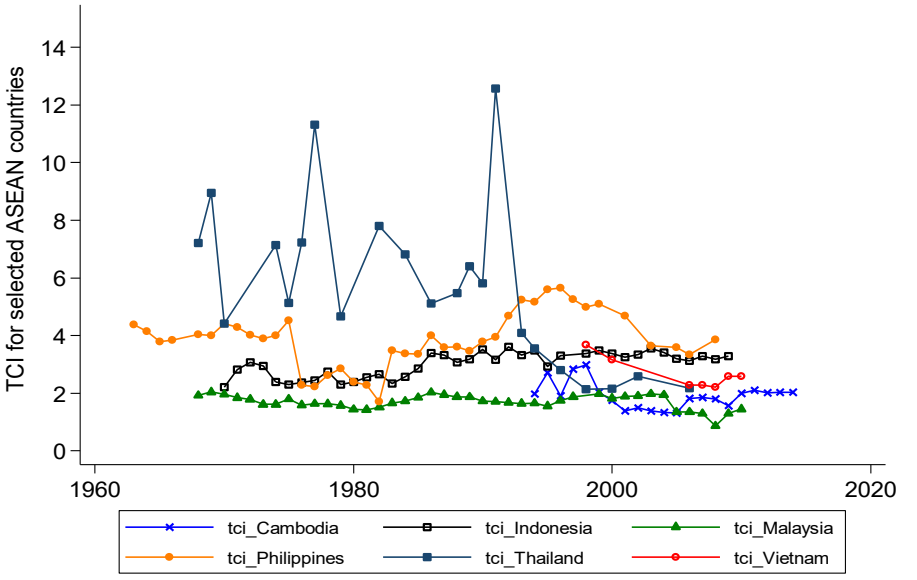

Figure 1.
Comparison of Cambodia's TCI with selected ASEAN countries

Source(s): Authors recalculated TCI for Cambodia, while the rest is found in Lin (2012)

Fillat and Woerz (2011). The model is estimated in two steps. In the first step, a baseline OLS model with time and industry-fixed effects is used to estimate the relationship between industry-level FDI and growth. In the second step, we examine the dependence of the FDI-growth relationship on the comparative advantage index, RCA, by adding an interaction term between FDI and RCA. To address endogeneity concerns, we adopt the instrumental variable two-stage least squares (IV-2SLS) technique to estimate the model. The model is estimated as follows:

$$Growth_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 RCA_{it} + \beta_3 X_{it} + \eta_i + \xi_t + \varepsilon_{it} \quad (1)$$

$$Growth_{it} = \beta_0' + \beta_1' FDI_{it} + \beta_2' RCA_{it} + \beta_3' (FDI_{it} \times RCA_{it}) + \beta_4' X_{it} + \eta_i + \xi_t + \varepsilon_{it} \quad (2)$$

where i and t represent the industry and time indices, respectively. $Growth_{it}$ denotes the GDP growth of each industry; FDI_{it} denotes industry-year investment inflows; X_{it} stands for a set of covariates, including government spending, inflation rate and trade openness, that potentially affect growth; RCA_{it} stands for an index to capture the presence or absence of comparative advantage through industry-specific elements, which are controlled for by incorporating industry dummy variables (η_i), and time-fixed effect (ξ_t), and ε_{it} denotes the error term. In model 2, both FDI and the RCA index are again incorporated into the regression model independently to ensure that the interaction term is not proxied by FDI or RCA in the endogeneity treatment section. Specifically, the total impact of FDI on growth is given by $\beta_1' + \beta_3' \times \mathrm{RCA_{it}}$, showing that the impact of FDI depends on TCI.

6.1 Data and descriptive statistics

To conduct empirical analysis, this study uses data on FDI inflows and GDP growth for each of the 13 industries in Cambodia. These industries are classified by Cambodia's Council for the Development of Cambodia (CDC) into three categories: agriculture (animal farming

(1); plantation, rice mill (10)); industry sector (garment, shoes and textile (5); household goods, packaging and plastic (7); energy and infrastructure (3); rubber (11); food processing and tobacco (4); paper and wood processing (9); metal, building material, mechanic, and assembly (13); construction (2); mining (8)); and the services sector (telecommunication (12) and hotel (6)). The numbers in parentheses correspond to the industry dummies used in the empirical section. Data for this study were obtained from several databases, including the Council for the Development of Cambodia (CDC) and various international organizations such as the Asian Development Bank (ADB), the World Development Indicator (WDI), WITS, UNCTADSTAT and Cambodia's statistical yearbooks. The CDC provides an industry-level FDI data set spanning from 1994 to 2017, and industry-specific GDP growth, trade openness, government spending, inflation rate and the RCA index were also obtained from these sources. The use of industry-level data may provide advantages in addressing the challenges of obtaining aggregate data that may not portray ongoing projects and new investments in host countries.

6.2 Empirical results

This empirical section aims to provide additional evidence on the relationship between FDI inflows and growth at the industry level and to investigate the additional effect of RCA on this relationship in the case of Cambodia. First, we explore the direct impact of industry-level FDI inflows on economic growth using the least squares model with industry-fixed effects. Subsequently, we examine the role of comparative advantage by introducing an interaction term between FDI inflows and the RCA index into the baseline model, as shown in equation (2). Table 3 presents the results of the baseline regression with GDP growth as the dependent variable at the industry level. In column (3.1) of Table 3, FDI is the only independent variable, and it has a statistically significant positive impact on industrial growth, supporting previous evidence on the contribution of FDI to Cambodia's growth over the last two decades. The table also shows the detailed impact of heterogeneous FDI inflows on growth, indicating positive and significant impacts. However, to fully understand the impact of FDI inflows on growth, we need to consider RCA and potential endogeneity, which is done in the following section. Columns (3.2) and (3.3) include covariates and industry dummy variables such as inflation rate, openness and government spending that may affect growth. FDI variable has a significant positive impact on growth in almost all industries, even without the comparative advantage variable, which is consistent with previous studies (Cheong Tang and Wong, 2011; Ngov, 2011; Sothan, 2017).

Given that this study aims to illustrate the impact of industry-level FDI on Cambodia's economic growth in terms of comparative advantage, Table 4 incorporates the RCA index into the baseline model, which reveals that the effect on growth is not solely due to FDI inflows. The fixed-effects model shows that FDI and RCA are complementary, with FDI coefficients ranging between 0.229 and 0.391. Although the effect of RCA in column (4.5) is insignificant, the subsequent estimation confirms that the relationship between FDI and growth is stimulated by RCA. In other words, FDI inflows have a more significant impact on growth when export products have a greater comparative advantage.

The models also include control variables such as covariates, time and industry-fixed effects, which have no impact on the FDI-growth relationship. The industry dummies in column (4.2) show that FDI inflows do not significantly affect growth in all industries. Only selected industries, including garments, shoes and textiles (5), food processing and tobacco (4), animal farming (1) and mining (8), have a positive impact on growth. Furthermore, RCA has a direct effect on growth, with heterogeneous effects across different industries. The estimation includes a two-way and three-way interaction term with industry dummies, demonstrating the various impacts of different industries.

Variables	Dependent variable: output growth by sector/industry (3.1)	(3.2)	(3.3)
ln(FDI)	0.369***	0.346***	0.058*
Inflation	(0.049)	(0.049)	(0.031)
		−0.011	−0.006
Openness		(0.015)	(0.005)
		0.029***	0.030***
ln(gov't_spending)		(0.004)	(0.002)
		1.967***	2.254***
ln(FDI)_industry1		(0.610)	(0.215)
			0.200***
ln(FDI)_industry2			(0.010)
			0.185***
ln(FDI)_industry3			(0.013)
			0.037***
ln(FDI)_industry4			(0.011)
			0.147***
ln(FDI)_industry5			(0.011)
			0.188***
ln(FDI)_industry6			(0.012)
			0.157***
ln(FDI)_industry7			(0.012)
			0.052***
ln(FDI)_industry8			(0.011)
			0.043***
ln(FDI)_industry9			(0.015)
			0.076***
ln(FDI)_industry10			(0.010)
			0.235***
ln(FDI)_industry11			(0.011)
			0.046***
ln(FDI)_industry12			(0.010)
			0.186***
Constant			(0.011)
	6.789***	0.659	2.894***
	(0.827)	(1.461)	(0.603)
Observations	309	298	298
R-squared	0.159	0.291	0.878
Time FE	No	No	Yes
Industry FE	No	No	Yes

Table 3. Detailed heterogeneous FDI growth effects by industry in Cambodia, 1994–2017

Note(s): In refers to the logarithm transformation. RCA refers to revealed comparative advantages. TCI stands for the technology choice index. RCA_Cambodia and RCA_Thailand denote the RCA indexes for Cambodia and Thailand, respectively. TCI_Cambodia represents the TCI for Cambodia. Robust standard errors in parentheses, ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

Source(s): Authors' computation

The results in columns (4.4) and (4.5) show strong complementarity between FDI and RCA. Increasing the RCA of sectors with comparative advantages leads to more productive inflows of foreign investment in Cambodia's industrial growth, particularly in labor-intensive industries such as garments, shoes, textiles, household goods, packaging, plastic, paper, wood processing, mining and animal farming. This finding is consistent with our earlier explanation of Cambodia's latest comparative advantages in these industries. However, due to data limitations, not all industries are included in the estimation, leaving room for future research.

Variables	Dependent variable: output growth by sector/industry (4.1)	(4.2)	(4.3)	(4.4)	(4.5)
ln(FDI)	0.391***	0.233***	0.235***	0.276***	0.229***
	(0.068)	(0.039)	(0.048)	(0.038)	(0.041)
Inflation	−0.010	−0.015**	−0.013*	−0.017*	−0.015**
	(0.021)	(0.006)	(0.007)	(0.008)	(0.006)
Openness	0.022	0.028***	0.025***	0.029***	0.028***
	(0.016)	(0.007)	(0.008)	(0.007)	(0.007)
ln(gov't_spending)	1.097	1.680***	1.133**	1.895***	1.751***
	(1.036)	(0.425)	(0.485)	(0.396)	(0.439)
ln(RCA)	0.207***	0.290***	0.503***	0.067	0.242***
	(0.059)	(0.053)	(0.062)	(0.065)	(0.061)
ln(FDI) × Ln(RCA)				0.019**	
				(0.006)	
ln(FDI)_industry1		0.172***			
		(0.009)			
ln(FDI)_industry4		0.103***			
		(0.011)			
ln(FDI)_industry5		0.087***			
		(0.018)			
ln(FDI)_industry7		−0.023			
		(0.015)			
ln(FDI)_industry8		0.020*			
		(0.012)			
ln(FDI)_industry9		0.017			
		(0.012)			
ln(FDI)_industry11		−0.011			
		(0.011)			
ln(FDI) × RCA_industry1					0.194***
					(0.011)
ln(FDI) × RCA_industry4					0.116***
					(0.013)
ln(FDI) × RCA_industry5					0.089***
					(0.018)
ln(FDI) × RCA_industry7					−0.012
					(0.016)
ln(FDI) × RCA_industry8					0.026*
					(0.015)
ln(FDI) × RCA_industry9					0.023*
					(0.013)
ln(FDI) × RCA_industry11					−0.007
					(0.013)
Constant	2.008	2.267	3.955***	1.805	2.038
	(3.229)	(1.382)	(1.500)	(1.677)	(1.456)
Observations	134	134	134	134	134
R-squared	0.389	0.912	0.873	0.518	0.906
Time FE	No	Yes	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes	Yes

Note(s): Robust standard errors in parentheses, ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Authors' computation

Table 4.
Detailed heterogeneous FDI growth effects by industry in Cambodia, 1994–2017

6.3 Endogeneity concerns

Endogeneity is a common concern when estimating economic phenomena using econometric models due to omitted variables and reverse causality. To address reverse causality, we use two-stage least squares regression (IV-2SLS), which requires an instrumental variable that

satisfies two conditions: instrument relevance and exclusion restriction (Angrist and Krueger, 2001; Eichengreen and Leblang, 2008). This study addresses the potential endogeneity of FDI and RCA by adopting a one-year lagged FDI as an instrument, a widely accepted approach (Borensztein *et al.*, 1998), and by using the RCA of neighboring countries for the same industry year as an instrumental variable for Cambodia's RCA. A similar strategy was adopted by Schwab and Werker (2018). Specifically, we choose Thailand's RCA as an instrumental variable due to its potential to serve as an effective instrument for global industrial relocation. After several decades of developing labor-intensive industries, labor wages in Thailand have increased, resulting in the loss of comparative advantages. Thailand's labor wages are higher than Cambodia's, resulting in the loss of comparative advantage and an increase in the RCA of other latecomers, including Cambodia (Kojima, 1982). We conclude that Thailand's RCA satisfies the conditions of the potential instrument, is correlated with Cambodia's RCA, meets the exclusion restriction condition and is uncorrelated with the error term.

We define the instrumental variable for the interaction term as a one-year lag of FDI multiplied by Thailand's RCA. Table 5 presents the results of reestimating the

Variables	Dependent variable: output growth by industry (5.1)	(5.2)	(5.3)	(5.4)
ln(FDI)	0.329***	0.354***	0.315***	0.218***
	(0.063)	(0.107)	(0.093)	(0.040)
ln(RCA)		0.505***	0.509***	0.231***
		(0.165)	(0.115)	(0.063)
ln(gov't_spending)	1.999***	0.790	2.509*	1.829***
	(0.307)	(0.719)	(1.404)	(0.414)
Openness	0.029***	0.023**	0.029	0.029***
	(0.002)	(0.010)	(0.020)	(0.006)
Inflation	−0.010	−0.005	0.001	−0.015*
	(0.007)	(0.013)	(0.028)	(0.008)
ln(FDI) × ln(RCA)			0.084***	
			(0.023)	
ln(FDI) × ln(RCA)_industry1				0.194***
				(0.012)
ln(FDI) × ln(RCA)_industry4				0.119***
				(0.012)
ln(FDI) × ln(RCA)_industry5				0.095***
				(0.020)
ln(FDI) × ln(RCA)_industry7				−0.015
				(0.017)
ln(FDI) × ln(RCA)_industry8				0.021*
				(0.012)
ln(FDI) × ln(RCA)_industry9				0.028**
				(0.014)
ln(FDI) × ln(RCA)_industry11				−0.003
				(0.013)
Constant	0.865	1.873	0.219	1.997
	(1.022)	(1.918)	(4.219)	(1.239)
Observations	296	136	134	134
R-squared	0.290	0.395	0.517	0.905
Time_FE	Yes	Yes	Yes	Yes
Industry_FE	Yes	Yes	Yes	Yes

Note(s): Robust standard errors in parentheses, ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$
Source(s): Authors' computation

Table 5.
The heterogeneous FDI and RCA effects by industry in Cambodia, 1994–2017

models using IV-2SLS regression while controlling for the above-mentioned covariates that may impact economic growth. The IV-2SLS estimations show more pronounced results, with some coefficients greater than their OLS counterparts with dummy variables. These significant findings support the hypothesis that comparative advantage in labor-intensive industries is crucial for FDI absorptive capability and encourages FDI to play a better catalytic role in Cambodia's growth. Specifically, the positive growth rate is evident in industries that engage in competitive export promotion and trade openness, particularly labor-intensive industries such as garments, shoes and textiles (Balasubramanyam *et al.*, 1996; Fillat and Woerz, 2011; Waldkirch, 2011; Lin, 2012; Hill and Menon, 2014).

7. Concluding remarks

Foreign investment plays a critical role in driving economic growth and development. In recent decades, many countries have lowered barriers to attract foreign investment, intending to increase tax revenue, create employment and introduce new knowledge embedded in foreign companies. Cambodia's remarkable economic growth since 1993 has been attributed to FDI in industries with comparative advantages. However, research on the impact of FDI on Cambodia's growth is lacking. This paper employs a panel regression model to investigate the effects of industry-specific FDI inflows on economic growth in Cambodia from 1994 to 2017. Two-stage least squares (2SLS) regression analysis is used to overcome potential endogeneity. Descriptive findings indicate that FDI has been attracted to sectors with the most comparative advantage in Cambodia. Furthermore, both FDI and the comparative advantage index significantly impact growth, and more FDI in sectors with comparative advantages leads to greater growth. Therefore, it is important to consider appropriate types of FDI based on the host countries' conditions. Cambodia has the potential to become a newly industrialized economy by following the principles of industrial upgrading and technological innovation recommended by the new structural economics. However, further research is needed to understand the effect of FDI on growth in Cambodia, including analyses of firm-level, backward, horizontal and forward linkages.

Note

1. TCI is developed Lin (2012) which is calculated as $TCI_{it} = (AVM_{it}/LM_{it})/(GDP_{it}/L_{it})$, where $AVM_{i,t}$, GDP_{it}, LM_{it} and L_{it} are the value-added of the manufacturing, total value-added, labor in the manufacturing and total labor force of country i at time t, respectively. When a country implements the CAD strategy, it focuses on allocating significant resources toward capital-intensive industries even if those industries do not possess comparative advantages. While this may boost the value-added of manufacturing, it can also limit those industries' capacity to absorb the labor force, leading to a higher TCI value.

References

Acemoglu, D. and Robinson, J.A. (2012), *Why Nations Fail: The Origins of Power, Prosperity, and Poverty, Crown*, Crown Books, New York.

ADB (2014), *Cambodia: Diversifying beyond Garments and Tourism Country Diagnostic Studies*, Asian Development Bank, Manila.

Alfaro, L. (2003), *Foreign Direct Investment and Growth: Does the Sector Matter*, Harvard Business School, Cambridge, MA, Vol. 2003, pp. 1-31.

Angrist, J.D. and Krueger, A.B. (2001), "Instrumental variables and the search for identification: from supply and demand to natural experiments", *Journal of Economic Perspectives*, Vol. 15, pp. 69-85.

Antras, P. and Caballero, R.J. (2009), "Trade and capital flows: a financial frictions perspective", *Journal of Political Economy*, Vol. 117, pp. 701-744.

Balassa, B. (1965), "Trade liberalisation and 'revealed' comparative advantage", *The Manchester School*, Vol. 33, pp. 99-123.

Balasubramanyam, V.N., Salisu, M. and Sapsford, D. (1996), "Foreign direct investment and growth in EP and IS countries", *Economic Journal*, Vol. 106, pp. 92-105.

Biglaiser, G. and DeRouen, K. (2006), "Economic reforms and inflows of foreign direct investment in Latin America", *Latin American Research Review*, Vol. 41, pp. 51-75.

Borensztein, E., De Gregorio, J. and Lee, J.W. (1998), "How does foreign direct investment affect economic growth?", *Journal of International Economics*, Vol. 45, pp. 115-135.

Broner, F.A. and Ventura, J. (2010), "Rethinking the effects of financial liberalization", National Bureau of Economic Research, No. w16640.

Cheong Tang, T. and Wong, K.N. (2011), "Foreign direct investment, merchandise and services trade in a transition economy: the case of Cambodia", *International Economic Journal*, Vol. 25, pp. 251-267.

Chhair, S. and Ung, L. (2013), "Economic history of industrialization in Cambodia", WIDER Working Paper.

Cuyvers, L., Soeng, R., Plasmans, J. and Van Den Bulcke, D. (2011), "Determinants of foreign direct investment in Cambodia", *Journal of Asian Economics*, Vol. 22, pp. 222-234.

Desai, M.A., Foley, C.F. and Hines, J.R. Jr (2005), "Foreign direct investment and the domestic capital stock", *American Economic Review*, Vol. 95, pp. 33-38.

Ear, S. (1997), "Cambodia and the 'Washington Consensus'", *Crossroads: An Interdisciplinary Journal of Southeast Asian Studies*, Vol. 11 No. 2, pp. 73-97.

Easterly, W. (2001), "The lost decades: developing countries' stagnation in spite of policy reform 1980–1998", *Journal of Economic Growth*, Vol. 6, pp. 135-157.

Eichengreen, B. and Leblang, D. (2008), "Democracy and globalization", *Economics and Politics*, Vol. 20, pp. 289-334.

Fillat, C. and Woerz, J. (2011), "Good or bad? The influence of FDI on productivity growth. An industry-level analysis", *The Journal of International Trade and Economic Development*, Vol. 20, pp. 293-328.

Gerschenkron, A. (1962), *Economic Backwardness in Historical Perspective*, Harvard University Press, Cambridge, MA.

Guimbert, S. (2009), *Cambodia-sustaining Rapid Growth in a Challenging Environment: Country Economic Memorandum*, World Bank, Washington, DC.

Hal, H. and Menon, J. (2013), "Cambodia: rapid growth with weak institutions", *Asian Economic Policy Review*, Vol. 8, pp. 46-65.

Hill, H. and Menon, J. (2014), "Cambodia: rapid growth in an open, post-conflict economy", *World Economy*, Vol. 37, pp. 1649-1668.

Hughes, C. (2003), *The Political Economy of the Cambodian Transition*, Routledge, London.

Iamsiraroj and Sasi (2016), "The foreign direct investment–economic growth nexus", *International Review of Economics and Finance*, Vol. 42, pp. 116-133.

Javorcik, B.S. (2004), "Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages", *American Economic Review*, Vol. 94, pp. 605-627.

Jica (2002), "The Kingdom of Cambodia – from reconstruction to sustainable development", JICA Research Institute, Country Study for Japan's ODA.

Kenh, S. (2023), "The impact of development strategy choice on capital mobility and economic growth", *Journal of International Development*, pp. 1-32.

Kojima, K. (1982), "Macroeconomic versus international business approach to direct foreign investment", *Hitotsubashi Journal of Economics*, Vol. 23 No. 1, pp. 1-19.

Le, Q.-P. (2010), "Evaluating Vietnam's changing comparative advantage patterns", *ASEAN Economic Bulletin*, Vol. 27 No. 2, pp. 221-230.

Lin, J.Y. (2010), *Cambodia Can Sustain Rapid Growth, Says Bank's Chief Economist*, The World Bank, Phnom Penh.

Lin, J.Y. (2012), *New Structural Economics: A Framework for Rethinking Development and Policy*, The World Bank, Washington, DC.

Lin, J.Y. and Xu, J. (2016), "Applying the growth identification and facilitation framework to the least developed countries: the case of Uganda", CDP Background Paper, p. 32.

Mah, J.S. (2017), "Globalization and economic growth in Cambodia", *The Singapore Economic Review*, Vol. 62, pp. 363-375.

Makiela, K. and Ouattara, B. (2018), "Foreign direct investment and economic growth: exploring the transmission channels", *Economic Modelling*, Vol. 72, pp. 296-305.

Mycliwiec, E.L. (2004), *Envisioning a New Paradigm of Development Cooperation in Cambodia*, Cambodia Development Resource Institute Phnom Penh, Phnom Penh.

Naron, H.C. (2012), "The Cambodian economy", *Cambodia: Progress and Challenges Since*, Vol. 1991, p. 246.

Ngov, P. (2011), "ASEAN economic integration and Cambodia's industrial policies", *Ritsumeikan International Affairs*, Vol. 10, pp. 67-94.

OECD (2017), *Social Protection System Review of Cambodia*, OECD, OECD Publishing, Paris.

OECD (2018), *OECD Investment Policy Reviews: Cambodia 2018*, OECD Publishing, Paris.

Saing, C.H., Hem, S., Ouch, C., Phann, D. and Pon, D. (2012), "Foreign investment in agriculture in Cambodia", Phnom Penh: Cambodia Development Resource Institute (CDRI), Food and Agriculture Organization of the United Nations (FAO).

Schwab, D. and Werker, E. (2018), "Are economic rents good for development? Evidence from the manufacturing sector", *World Development*, Vol. 112, pp. 33-45.

Sen, H. (2011), "Hun Sen's ten years of Cambodian development path: 1979–1989, Cabinet of the Prime Minister", available at: www.cnv.org.kh

Sothan, S. (2017), "Causality between foreign direct investment and economic growth for Cambodia", *Cogent Economics and Finance*, Vol. 5, 1277860.

Sotharith, C. (2011), "Industrial development policy and intermediate goods trade in Cambodia", in *Intermediate Goods Trade in East Asia: Economic Deeping Through FTAs/EPAs*.

Vixathep, S. (2013), "Cambodia's comparative advantage patterns and trade structure from 1985 to 2010", *Journal of Southeast Asian Economies*, Vol. 30 No. 3, pp. 278-293.

Waldkirch, A. (2011), "Comparative advantage FDI? A host country perspective", *Review of World Economics*, Vol. 147, p. 485.

Warr, P. and Menon, J. (2016), "Cambodia's special economic zones", *Journal of Southeast Asian Economies*, Vol. 33, pp. 273-290.

World Bank (2018), *Cambodia Economic Update: Recent Economic Developments and Outlook (English)*, World Bank Group, Washington, DC.

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