View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Research Papers in Economics

IN THE SHADOW OF CHINA: TRADE AND GROWTH IN LAO PDR

Magnus Andersson
Anders Engvall
Ari Kokko

Stockholm School of Economics

Working Paper 4
March 2009

Postal address: P.O. Box 6501, S-113 83 Stockholm, Sweden.
Office address: Holländargatan 30 Telephone: +46 8 736 93 60 Telefax: +46 8 31 30 17
E-mail: japan@hhs.se Internet: http://www.hhs.se/cerc

IN THE SHADOW OF CHINA: TRADE AND GROWTH IN LAO PDR

Magnus Andersson
Anders Engvall
Ari Kokko
Stockholm School of Economics

Abstract

The rapid integration of China into the global economy has profoundly altered external economic conditions for its neighbors and the wider developing world. This study explores the effects on Laos, a small developing country on the fringe of the Chinese market. The Lao case captures both global effects transmitted across the world market and a regional impact that may be limited to countries located close to China. Based on unique trade and household data-sets, the study identifies three main effects of China's growth on the Lao economy: (i) an increased demand for exports of primary commodities to the Chinese market; (ii) increased inflows of Chinese manufactured goods competing with domestic Lao production; and (iii) border effects in northern Laos where low transaction costs have allowed even the poorest households to participate in exports to China. The first and second of these effects are expected to apply to most developing countries, whereas the third is unique to developing countries located close to the Chinese market. In the long run, it is possible that increasing wages and a gradual reduction of the Chinese surplus of unskilled labor will create new opportunities for labor intensive industry in other developing countries, but the short run strategies of many countries should probably focus on gradual upgrading of resource based industries.

JEL Codes: F14, F15, F20, O10

Keywords: Laos, exports, FDI, income distribution

1. Introduction

Since the introduction of the reform program known as the New Economic Mechanism (NEM) in November 1986, Lao PDR has been in a slow transition from a centrally planned economy towards a market economy. Various measures have been introduced under the NEM to reduce price and production controls, improve the managerial and financial autonomy of state-owned enterprises, and promote the development of a private sector. Openness and outward orientation have been stressed as central policy objectives, and simplification and liberalization of trade and exchange rate regulations have contributed to a more transparent environment for both export and import activities. These unilateral reforms were strengthened by the country's accession to ASEAN's Free Trade Agreement (AFTA) in 1997, which has gradually improved access to the regional export market at the same time as it has reduced the import tariffs towards other AFTA members. The negotiations for WTO membership, which commenced in 1997, have also helped clarify the country's trade policy ambitions. Like many other countries, Lao PDR sees globalization – in the form of international trade and foreign direct investment inflows – as a vehicle for economic growth and development.

So far, the results of the market oriented reforms have been encouraging, although Lao PDR remains one of the poorest countries in East Asia. Development has accelerated since the late 1980s, and the average annual GDP growth rate for the past two decades exceeds six percent. Over the same period, the poverty rate has fallen from nearly 50 percent to less than 30 percent.

One of the characteristics distinguishing Lao PDR from most other developing countries is its geographical location next to China. Being a neighbor to China highlights both the opportunities and challenges of globalization: the huge Chinese market is within reach of many Lao producers and could potentially swallow any amount of exports from Laos, at the same time as the threat from Chinese exports is ubiquitous. Another distinguishing mark of the Lao economy is the strong fragmentation of the national market. The low population density (only 24 people per square kilometer) together with mountainous geography and severely underdeveloped transport infrastructure mean that domestic market integration is weak. Hence, while the northern part of Laos is located close to China, the southern part is not, in an economic sense. It is more expensive to transport goods from southern Laos to China, by road or via Thai or Vietnamese ports, than to ship goods to China from major ports in South Asia or even Africa. As we will see, trade with China has contributed significantly to the economic development of Laos, but the Chinese footprint has looked different in different parts of the country.

The particular features of the Lao market mean that the experiences of Lao PDR can be used to illustrate two kinds of trade relations with China. The northern part of the country has had ample opportunities to engage in border trade in a wide variety of products, thanks to relatively low entry barriers in terms of transport and transactions costs. Southern Lao PDR, by contrast, has faced higher costs in its trade with China, which has limited the range of products that can be exported and imported. If the first of these cases is described as "integration", the second one illustrates "internationalization".

The purpose of this chapter is to describe the development of international trade and foreign direct investment (FDI) in Lao PDR, with focus on the relations with China. Section 2 provides an overview of the structure of trade and FDI in Laos. Section 3 looks more specifically at the relations with China, highlights the differences between northern and southern Laos, and discusses the effects on poverty reduction and income distribution. This discussion focuses on the period 1997/98-2002/03, for which detailed data are available from comprehensive living standard surveys: it is likely that the differences between the northern and southern parts of the country will diminish over time, as the as the north catches up to the the rest of the country. Section 4 concludes.

2. Trade policy, international trade, and FDI in Lao PDR

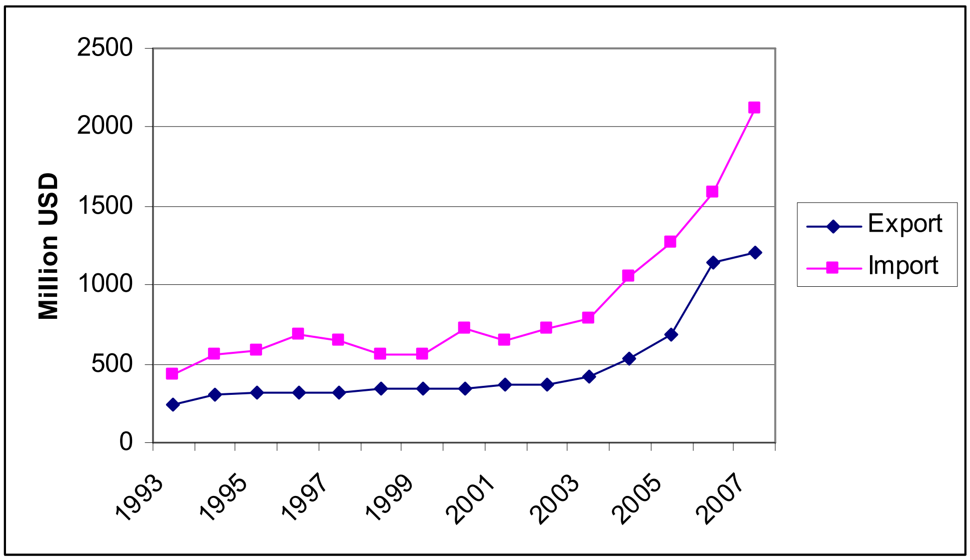
During the first decade after the introduction of the NEM, Lao trade policy remained fairly restrictive and non-transparent in spite of some unilateral attempts at market oriented reform. The tariff structure was complicated and import duties on many products were high, various exemptions and reductions were frequently applied, and a large number of non-tariff measures (such as foreign exchange controls and import licensing requirements) were in place, as well as various taxes and fees on exports (World Bank 2006; UNDP 2006). A more comprehensive reform process started in the mid-1990s, when a number of regional and multilateral initiatives were added to the cautious unilateral reforms. The most important of these initiatives was the accession of Laos to the Association of Southeast Asian Nations (ASEAN) and its Free Trade Area (AFTA) in 1997. The objective of AFTA is to eliminate all tariff and non-tariff barriers in the trade between member countries, and to promote economic efficiency and competitiveness through increased competition, specialization, and opportunities to exploit scale economies. By 2005, the five original ASEAN nations – Thailand, Indonesia, Malaysia, Singapore and the Philippines – had in principle reduced their tariffs on intra-regional trade below five percent. Laos reached the same target in 2008.[1] ASEAN has also been an important vehicle for simplifying trade with China. For instance, the *Early Harvest Program* of the trade agreement between ASEAN and China has reduced Chinese import tariffs on many agricultural commodities in advance of the free trade agreement, which is expected to come into force in 2010 for the more developed ASEAN countries and in 2015 for Laos.

Other important agreements guarantee market access in the main OECD markets. Laos has been included among EU's GSP (Generalized System of Preferences) partners since the early 1990s, and tariffs on Lao exports have therefore been well below MFN (most Favored Nation) tariffs. These preferences were particularly important for the early development of the Lao garment industry (UNDP 2006). Since 2002, Lao exporters have benefited from the *Everything But Arms* program, which provides duty-free access to the Single Market for almost all exports from Least Developed Countries. Access to the Japanese market is also facilitated by GSP preferences, although these preferences are lower than in the EU market, and rules of origin appear to be a more substantial problem (World Bank 2006). Trade with the US is governed by a BTA (Bilateral Trade Agreement) from 2004 that grants Laos normal trade relations, meaning access to US market on MFN terms. Unlike the GSP programs of the EU and Japan, this bilateral agreement does not provide any preferences beyond MFN, and requires Laos to undertake a number of reforms in the trade area. These reforms are intended to simplify trade regulations and improve access to the Lao market for US and other foreign investors. The requirements in the US agreement are broadly consistent with WTO regulations, and the BTA can therefore be seen as an important step towards WTO membership. Laos applied for WTO membership in 1997, but the negotiations did not commence until 2004 and are only progressing slowly.

As a result of these bilateral and multilateral agreements, the trade policy environment has become significantly less restrictive during the past decade. World Bank (2006) notes that "MFN import duties in Laos are low and not highly dispersed", with only six rates in the tariff schedule (in the range 5-40 percent) and an unweighted average tariff of around 10 percent. Official policy also supports exports. In addition to efforts aiming to encourage locally owned firms to produce for the regional and global market, the government has provided favorable conditions for export oriented foreign investors in areas like textiles and garments, hydropower, mining, wood products, and commercial agriculture. This notwithstanding, non-tariff barriers remain a concern, with cumbersome procedures both on the import and export side, as well as problems with implementation of regulations and coverage of trade statistics. A large share of trade – in particular border trade – is informal and therefore not registered in official statistics. For obvious reasons, it is difficult to assess exactly what share of overall trade is unregistered, but it can be noted that UNDP reports that at least 20-30 percent of overall trade goes unregistered, with substantially higher shares for agricultural exports in border regions (UNDP 2006).

The trade reforms, together with price liberalization and other domestic reforms, have supported growth and development and also led to a substantial increase in trade volumes over the past decade. Figure 1 illustrates the development of Lao exports and imports since the early 1990, and highlights two points. Firstly, the increase in trade volumes, particularly during the past few years, is notable even taking into account the fact that much trade remains unregistered. The nominal values of exports and imports have more than doubled in the past five years and tripled in the past ten years. This has raised the ratio of trade to GDP from well below 20 percent in the early 1990s to around 30 percent in 2006-07. Yet, trade volumes remain low, reflecting low productivity and income levels. To put the aggregate amounts in perspective, it can be noted that Lao exports per capita reached USD 130 in 2005, which can be compared to some USD 550 USD per capita in China or nearly USD 400 per capita in Vietnam.

Figure 1. Lao exports and imports 1993-2007 (million USD)



Source: IMF Country Reports (various issues).

Secondly, Figures 1 illustrates Lao PDR's persistent trade deficits. Goods imports have consistently been larger than exports, and revenues from services like tourism and overflight rights have not been sufficient to finance the deficits in goods trade. The deficits have instead been financed by steady inflows of official development assistance and remittances from Lao citizens working abroad, in particular in Thailand. In an historical perspective, it is interesting to note that it is hard to find any year since the late 19th century with a Lao trade surplus. During the colonial period, there was a net inflow of resources to the country from France and other parts of Indochina, various political groups in Laos were supported by the parties in the Indochinese Wars between the 1940s and the 1970s, substantial support from Vietnam continued for more than a decade after the communist takeover in 1975, and the international aid community has provided billions of USD to promote the country's development during the past decades. Since the early 1990s, official development assistance has fluctuated between 10 and 20 percent of GDP, which makes Laos one of the most aid dependent countries in Asia.

Trade partners and trade structure

Although Lao PDR has been politically dependent on Vietnam since 1975, when the current regime came to power with support from Vietnam, there is no doubt that the most important economic relationships are with Thailand. These relationships have not only been facilitated by similarities in culture and language (Lao and Thai are closely related), but also by geography. A large share of the Lao population is found along the Mekong river, which forms the border to Thailand, whereas the areas bordering to Vietnam, China, and Cambodia have been more sparsely populated (although all border provinces record faster population growth than the inland provinces). The first bridge over the Mekong river was not opened until 1994, but the river itself and its tributaries form an important transport network that links large parts of Laos to Thailand. The transport infrastructure in other border regions is weaker, although regional infrastructure projects like the East-West Corridor that links northeastern Thailand to Danang in central Vietnam (via central Lao PDR) and the North-South Corridor connecting northern Thailand to China's Yunnan province (via Luang Namtha and Bokeo provinces in Laos), have improved the situation. Yet, for most Lao producers, it is less costly to trade with Thailand than with the other neighboring countries (Edmonds and Fujimura 2008). Hence, Thailand has accounted for most of Lao exports and imports. EU and Vietnam are other important export destinations, but China has been relatively insignificant, at least according to officially registered statistics. On the import side, China and Vietnam are the second and third largest trade partners, but remain far behind Thailand.

Given the low level of development of Laos, it is not surprising that the structure of exports is heavily biased toward primary products. With nearly half of the country's land area under forest cover, timber and wood products have traditionally been the most important export goods. In recent years, official timber exports have been reduced because of environmental concerns, but wood products from forest plantations remain important. Although the great majority of the country's population is engaged in farming, the agricultural sector has not been very important in officially registered exports. The main exception is coffee, which was introduced to central and southern Laos by the French already in the early 20th century. Exports became important in the 1980s, when coffee was used to repay debts to the Soviet Union and Vietnam. These exports were mainly made up of unroasted beans of low quality, and sales stagnated when trade with the communist block fell away towards the end of the decade. A recovery has taken place since the mid-1990s, and larger integrated firms (with plantations as well as capacity for roasting, milling, and packaging) have begun to replace the small coffee farmers that dominated in the past (Andersson et al. 2007). Although other cash crops – e.g. sugar cane, maize, and rubber – have been introduced in recent years through foreign direct investment projects based on large land concessions, agriculture remains a small part of formal exports. However, it should be noted that farm products and non-timber forest products are important parts of the informal border trade between Laos and its neighbors.

The mountainous geography and the Mekong river with its many tributaries also gives Laos very notable hydroelectric potential. Electricity exports have been important since the late 1990s and several ongoing hydropower projects will increase the sector's export capacity in the future. Similarly, mining has become an important export sector in recent years. Lao PDR has substantial reserves of gold, copper, tin, zinc, gypsum, sapphires, and other minerals, and although only a few major mines are in operation at present, there is a large number of mining concessions in the early stages of exploration and investment (Shingu 2006).

Aside from wood products, textiles, garments, and footwear make up the most important manufacturing exports. The main importer of textiles and garments is the EU: as noted earlier, the origins of the industry lie in EU trade preferences and export quotas under the MFA (Multi-Fiber Agreement). The expiration of the MFA at the end of 2004 has put pressure on many of the producers in Lao PDR (primarily foreign investors) who are less competitive than the leading Chinese producers. The introduction of new quotas for

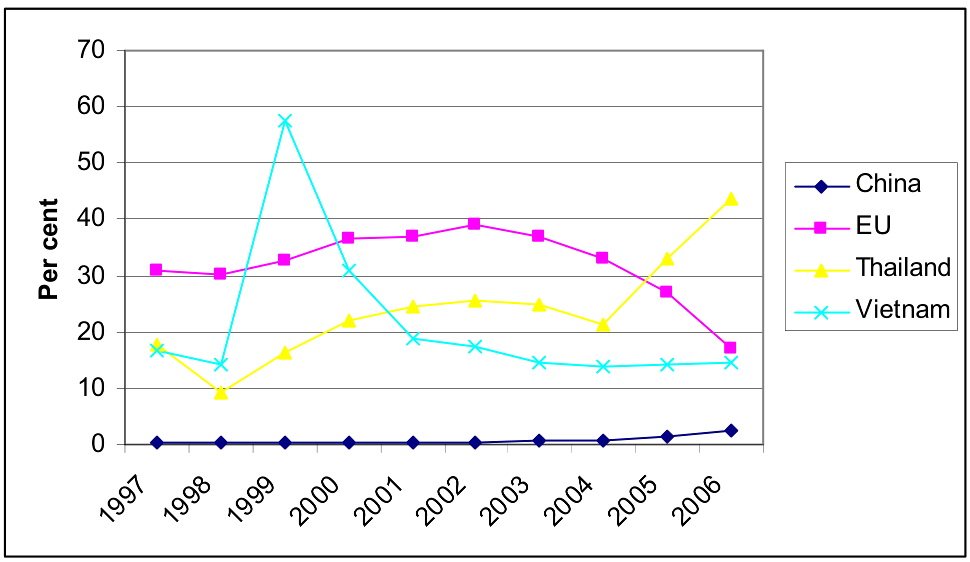
Chinese producers in the EU has given some temporary relief to weaker developing country exporters, but the medium term prospects for Laos are not very positive.

The main export sectors are also the main sectors of interest for inward FDI, which is not surprising considering the small size and purchasing power of the country's domestic market. The first substantial foreign investments were made in the garment and wood products industries in the early 1990s, telecommunications and hydropower took over some years later, and mining emerged as a major investment sector around the turn of the millennium. In the past few years, agriculture has also appeared among the sectors with substantial FDI: several large land concessions have been granted to foreign investors for forest plantations, rubber, maize, sugarcane, rice, and other commodities.

The official trade statistics collected by Lao authorities do not provide any accurate description of the structure of imports and exports. The main reasons are the weak capacity of the statistical authorities in Laos and the high share of informal trade, which is partly facilitated (or caused) by an inefficient customs administration. The fact that much trade if informal makes it difficult to double-check the Lao export records by examining import data from the country's trade partners: the lack of formal export and import records spills over to the trade statistics of the neighboring countries. Hence, there are substantial discrepancies between the export data recorded by the Lao Ministry of Trade (see e.g. IMF 2000) and the import data registered by the trade partners of Laos.[2] These discrepancies do not follow any systematic pattern – some years, partner data show much lower trade volumes than official Lao records, other years the opposite is true.

In particular, it is difficult to describe the country structure of Lao trade. As noted earlier, Laos is a landlocked country and virtually all traded goods have to pass through one of the neighboring countries. In most cases, the transit country is Thailand, but some exports are also routed via ports in central Vietnam (mainly Danang). Even if export and import volumes are accurately registered at the border, there is a risk that the final destinations or origins of the goods are lost, and the transactions are recorded as trade with Thailand or Vietnam. For example, Lao statistics suggest that about 65 percent of exports in 1997 were destined to Thailand and Vietnam, whereas Thai and Vietnamese import statistics imply that their combined share of Lao exports was below 35 percent: the difference is probably re-exports to overseas locations. Although it is difficult to determine the exact shares of specific countries, it is possible to use this type of data to illustrate changes over time. This is done in Figure 2, which uses partner import statistics to show how the shares of four important export destinations – Thailand, Vietnam, China, and the European Union (EU) – have changed over time. The most notable point in Figure 2 is the very low share of China, which did not reach 1 percent of Lao exports until 2005. Another interesting observation is the reduction in the share of the EU and the increase in the share of Thailand during the past decade.

Figure 2. Country distribution of Lao exports 1997-2006 (per cent)



Source: IMF Country Reports (various issues) for total exports, UN Comtrade for imports by trade partners.

The commodity composition of Lao trade is easier to observe at border stations, and it is likely that these data are more useful than those on the direction of trade. In particular, it is easier to discern which commodity groups are underrepresented in official statistics. A major share of informal trade is likely to involve agricultural products and timber on the export side, and consumer goods on the import side: trade in minerals, electricity, fuel and capital goods is probably captured reasonably well, because it is undertaken by larger firms that are more visible to the authorities. Table 1 summarizes the commodity composition of exports and imports during the period 1998-2006. The changes on the export side are significant. Electricity, timber, and garments were the main export products throughout the 1990s, and they remain important. Electricity is expected to keep its position as new hydropower projects come on line in the future. The mining industry has developed quickly since 2003, with gold and copper now accounting for nearly half of Lao exports. Official exports of timber have fallen because of stricter logging restrictions, but it is likely that substantial informal exports still occur. Four commodities – gold, copper, timber, and coffee – account for almost three-quarters of official exports.

The main development on the import side is a strong increase in the share of investment goods. The relatively favorable economic conditions during the past half-decade (including the high world market prices for raw materials and energy) have stimulated investment, not least in the mining sector, and boosted the imports of capital goods. Consequently, over two-thirds of official imports can be classified as investment goods or intermediates. The low share of consumer good imports is partly explained by the low incomes (and demand) of the population and partly by high informal imports of consumer goods from Thailand and China.

Table 1. Commodity composition of trade, Lao PDR, 2000-2006 (per cent)

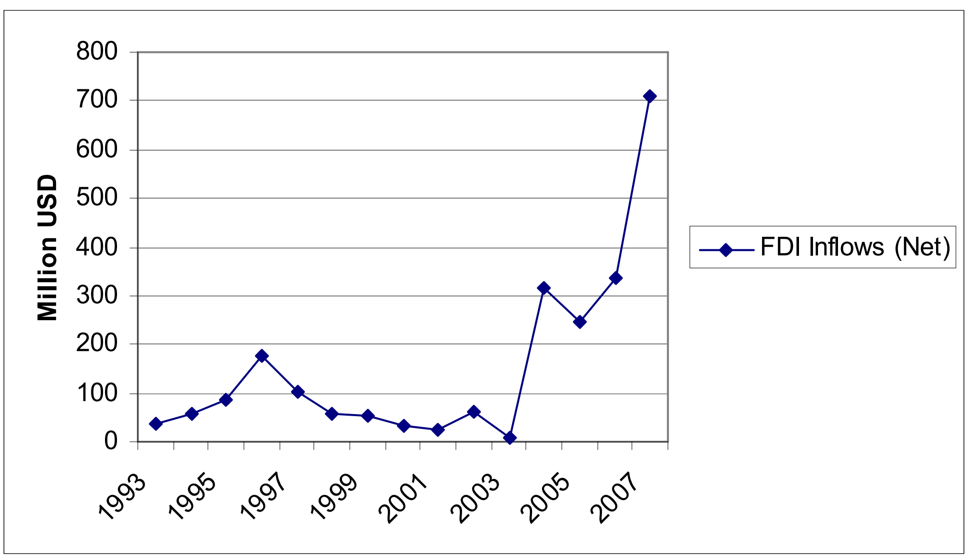
Major commodity	1998	1999	2000	2001	2002	2003	2004	2005	2006
	Exports (% or total recorded exports)								
Gold	0	0	0	0	0	13	12	14	10
Copper	0	0	0	0	0	0	0	17	36
Electricity	20	25	33	29	28	19	18	17	11
Timber	34	29	20	29	31	28	29	21	17
Garments	21	20	31	31	31	29	31	21	11
Coffee	14	4	4	4	5	2	3	3	1
Other	11	22	12	6	6	8	7	6	13
	Imports (% of total recorded imports)								
Petroleum	22	13	22	13	16	13	11	13	13
Capital goods	37	33	33	35	31	39	48	51	41
Garment materials	12	12	9	13	13	12	12	9	6
Electricity	1	2	1	1	1	1	2	2	2
Other	28	40	35	38	40	34	27	25	36

Source: IMF Country Reports (various issues).

Foreign direct investment inflows

A large part of the investment boom in Lao PDR is related to foreign direct investment. As shown in Figure 3, the annual net inflows of FDI have increased very substantially in recent years, from around USD 50 million in the aftermath of the Asian crisis to about USD 300 million in 2004-2006, and over 700 million in 2007. It should be noted that these are figures for realized net FDI, as reported in the country's balance-of-payments: the value of foreign direct investment licenses approved during the period 1995-2006 was about four times higher. Although the gap between licensed investment and realized investment is large, it is not remarkable compared to other developing countries opening up to foreign direct investment (see e.g. Kokko and Zejan 1996). The risk levels in FDI projects are high, and license applications are typically based on best-case scenarios that are rarely realized in the short run.

Figure 3. Net inflows of FDI 1993-2007 (million USD)



Source: IMF Country Reports (various issues).

There are no readily available data on the source country and industry distribution of realized FDI, but Table 2 summarizes some data on the distribution of investment licenses for the periods 1996-2000 and 2002-2007. The main FDI license holders during the ten-year period covered by the data were Thailand and the other ASEAN countries (mainly Vietnam), Australia, and the EU, but the most remarkable development is the increase in the Chinese share towards the end of the period. It is likely that China is now the largest foreign investor in Laos, even though the data on license approvals may underestimate the role of EU and Thai investors, who have often recorded a smaller gap between license approvals and actual investment amounts than investors from other countries (ADB 2006). Chinese FDI in Laos is mainly focused on commodities, and forms part of the Chinese drive to secure access to raw materials like minerals, agricultural raw materials, rubber, and other forest products. Once these investments come on line, they will result in an increase also in the share of Lao exports that are directed to China.

Table 2. Country and industry distribution of approved FDI (per cent)

	1996-2000	2002-2007
Country distribution of approved FDI	*%*	*%*
Thailand	50	22
China	2	19
Vietnam	n.a.	9
France	0	7
Japan	1	7
India	n.a.	6
Australia	1	5
Korea	18	5
Malaysia	18	2
Singapore	1	2
Others	10	17
Industry distribution of approved FDI		
Agriculture	4	12
Mining	1	10
Electricity	15	53
Construction	n.a.	3
Manufacturing	23	7
Hotel and restaurant	14	3
Other, including telecommunications	43	12

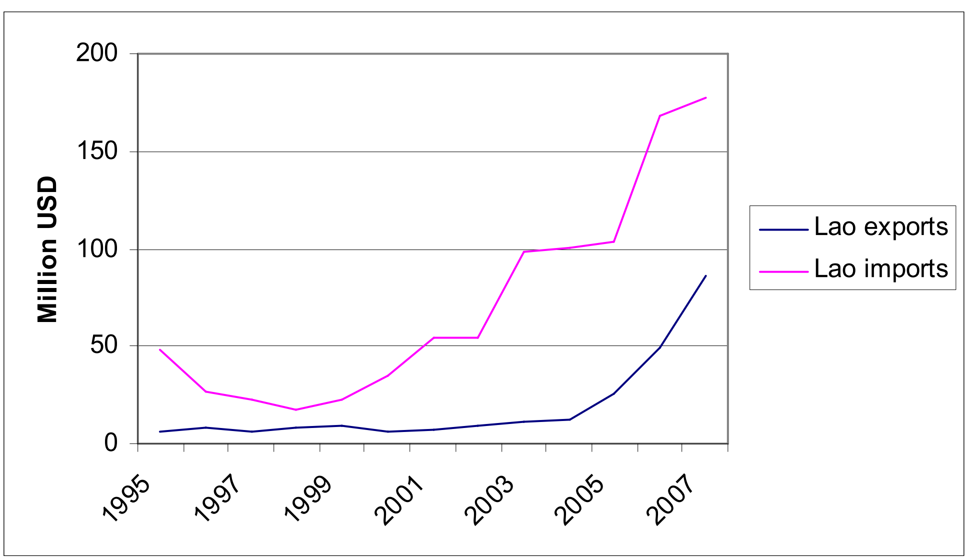
Source: IMF Country Reports (various issues).

Looking more broadly at the industry distribution of FDI licenses, there is a clear shift between the 1990s and the last few years. During the 1990s, most foreign investors focused on garments, telecommunications, and electricity generation. The first two of these industries have lost shares over time, since the competitiveness of the garment industry has suffered from the expiration of the MFA and the telecommunications network has been put in place. At the same time, mining, electricity generation and agriculture have become more important. Taken together, these three industries accounted for 75 percent of the approved inward FDI 2002-2007. There are no records of outward FDI from Laos, which is consistent with the weak development of Lao industry.

3. Trade and FDI relations between Laos and China

The officially recorded bilateral trade between Laos and China is relatively small. China accounted for less than 1 per cent of Lao exports before 2005, but its share has been rising fast since then: in 2007, the Chinese share exceeded 5 percent for the first time since the start of economic reforms. The Chinese share of official imports has been higher during most of this period, and exceeded 10 percent in 2006. Consequently, Laos has recorded a notable deficit in its trade relations with China. As Figure 4 shows, the deficit started growing rapidly in the late 1990s, and has averaged nearly USD 100 million per year since 2003.

Figure 4. Lao exports to and imports from China (million USD)



Source: Comtrade (based on data on Chinese exports and imports).

However, official data underestimate the importance of China. It is easy to observe that both Chinese consumer goods and capital goods are much more abundant in the Lao market than what official statistics suggest – unregistered imports are common – and there are also substantial informal exports to China, particularly from the northern provinces of the country.

The penetration of Chinese products is not surprising. China is not only a neighboring country, but also the world's leading exporter of low-cost manufacturing goods, and should therefore be expected to hold a large share of the Lao market. This has positive as well as negative effects on the Lao economy. The abundant supply of cheap Chinese goods has undoubtedly raised the welfare of Lao consumers throughout the country. In particular, it is interesting to observe how cheap Chinese generators, satellite disks, and television sets can now be found in many remote villages that lack permanent road connections to the outside world. At the same time, it is necessary to recognize that the proximity to China puts domestic manufacturing industry in a difficult position. With a small domestic market and a very limited supply of skilled workers, Lao manufacturing industries will find it very hard to match their Chinese competitors unless they can rely on some sort of institutional advantage (e.g. strong import protection or preferential access to third-country markets). In its trade with China, Laos is therefore an importer of manufactured goods and an exporter of commodities. Manufactured goods (mainly machinery and equipment) account for over 90 percent of registered imports from China, while a similar share of exports to China is raw materials – mainly agricultural products, timber, rubber, and recently also minerals.

Northern versus southern Laos

An important feature of trade with China is that its importance and character varies between the regions of the country. In the central and southern parts of Laos, Chinese goods meet tough competition from products from Thailand and Vietnam. In particular, Thai and Vietnamese producers have been able to capture large shares of light consumer goods, while the Chinese appear to be more competitive in durable consumer goods and capital goods. In the northern part of the country, imports from China have higher market shares across the board. Although not shown clearly in official statistics, this includes substantial (informal) imports of food and beverages and various light consumer goods.

Similarly, the importance of China for exports differs between the south and the north. In southern and central Laos, small scale production and informal trade relations have for a long time been directed towards Thailand and Vietnam. For instance, much of the surplus from small scale farming along the Mekong river (live animals, rice, fruits and vegetables) is eventually exported to Thailand. While these household-based activities are still important for the aggregate economy, they have gradually been overshadowed by more explicitly export oriented production. This includes large scale plantation agriculture – rubber, timber, coffee, sugarcane, and other crops – as well as mining and electricity generation. The products from small farms in southern Laos are rarely (if ever) exported to China, unlike industrial commodities like timber, rubber, and minerals.

The differences between these categories of exports are largely explained by transaction costs and scale of production. The weak market infrastructure – in particular, the underdeveloped transport network – means that the transaction costs for exporting from southern or central Laos to China are very much higher than the costs for exporting to the neighboring countries. Moreover, these costs are more or less fixed: the necessary expenses for shipping commodities to China are largely independent of transaction volume (up to some limit), since there are few standardized transport services available for small-scale transactions. To be able to cover the higher costs for trade with China, it is therefore necessary to operate at a relatively large scale. Large scale plantations and mines – or sectors with efficient intermediaries or middlemen that can collect goods from many small producers – will be able to sell to distant customer, small farmers will not.

In northern Laos, by contrast, transaction costs are lower and it is possible also for small farmers to participate in trade with China. The lower costs are partly due to the shorter distance to China, but also related to the presence of Chinese contractors and investors operating on the Lao side of the border (which in turn is explained by geographic proximity). By encouraging local farmers to produce commodities demanded in China and collecting produce at the farm gate or at local markets – sometimes also providing credits and seeds, fertilizers, and other inputs – these intermediaries are able to reduce both transaction costs and perceived risk for individual farmers. There is also some border trade with Thailand, but weaker relations with Vietnam because of poor transport infrastructure and low population density in the border areas. Because the general level of development in northern Laos is lower than in the south, it is also notable that the north has until recently received few large scale investments in plantations, mines and hydropower in comparison with the south. During the past few years, this picture has slowly begun to change, as a result of significant Chinese investments in plantation agriculture: Chinese investors have been granted large land concessions for various crops, ranging from rice to rubber. There are also plans for investments in mining and hydroelectricity in the northern provinces, but the existing production capacity in these sectors is limited (with the exception of some small-scale mining for rubies and gold).

These differences between the north and the south make it interesting to look more closely at how the links with China affect development in the two parts of the country.

Most of northern Laos is classified as mountainous and poorly suited to agricultural use. Deforestation is a serious problem because of the common practice of swidden agriculture and productivity has traditionally been low in comparison with the lowland areas along the Mekong river. Increased population and government land use regulations have limited the acreage available for swidden agriculture during the past decades, reducing fallow periods and contributing to accelerated soil erosion – this has further reduced productivity. As a result of its weaker agricultural potential, northern Laos has traditionally been poorer than other parts of the country. Table 3 shows how the poverty incidence (i.e. the share of the population living below the poverty line) has changed in the different regions of the country between 1992/93 and 2002/03: the years noted in Table 3 are chosen because they mark comprehensive living standard and expenditure surveys, which provide detailed information for the calculation of poverty rates. The northern provinces exhibit the highest poverty rates at all three points in time, whereas the southern provinces are in a somewhat stronger position. However, the rate of poverty reduction has been higher in the north, particularly since 1997/98.

Table 3. Poverty incidence in Lao PDR 1992/93-2002/03, per region

Region	**1992/93**	**1997/98**	***2002/03***
Northern	51.6	47.3	*37.9*
Central	45.0	39.4	*35.4*
Southern	45.7	39.8	*32.6*
Vientiane municipality	33.6	13.5	*16.7*
Laos total	***46.0***	***39.1***	***33.5***

Source: Andersson et al. (2007), Table 2.

Because of the higher poverty rates, northern Laos has been a priority target for both the government and international donor agencies in their work to improve development conditions and reduce poverty in the country. Recent aid efforts have focused on introducing cash crops to replace opium and swidden cultivation in the highland communities, in order to establish more sustainable agricultural practices and assisting livelihood security. However, since the late 1990s, market forces have arguably had even stronger effects on the process of structural change. Improved road links to Yunnan province in China (and to a lesser extent to Thailand) have boosted demand for agriculture commodities and stimulated a shift away from subsistence agriculture, towards commercial farming, with positive effects on rural livelihoods.

Sugar and rubber have emerged as two of the most important cash crops in northern Laos as a result of this process. Cultivation of sugar cane started in the mid-1990s with a small number of households planting sugarcane. However, initial problems with transporting the crop to markets due weak infrastructure led to financial losses for the farmers. Since the turn of the millennium, sugar is mainly produced on contract basis for Chinese intermediaries, but under supervision by districts offices. Usually sugar contracts allocate 30 percent of the net revenue to the Chinese investors and 70 percent to the growers. The Chinese investors provide sugar seedlings, fencing wire, and fertilizer. The costs of input materials are deducted before net revenue is divided.

Rubber plantations follow a similar pattern, with Chinese intermediaries promoting contract farming by providing seedlings, fertilizers, and credits to villagers. The investment in planting rubber trees is a long-term undertaking, which requires at least 8 years until the first harvest. Since the boom in the northern Lao rubber sector only began around the turn of the millennium and accelerated from around 2005, it is still too early to determine how successful or profitable it will be. A particular concern is that rubber trees are sensitive to cold weather at the same time as wide areas in northern Lao tend to be exposed to frost with intervals of approximately 10 years.

The demand from China has also affected many other crops. The production of maize, watermelon, capsicum, and other fruits and vegetables has increased notably, as has the production of paddy rice. This has largely been possible because production of upland rice for subsistence has fallen, as lands used in shifting cultivation are increasingly used for market-oriented production. Stressing the novelty of commercial farming, Thongmanivong and Fujita (2006) note that crop selection has been remarkably variable since the late 1990s, as farmers have experimented with different varieties of cash crops and adjusted their production to fluctuating export prices. They also note that agricultural land itself has become a commodity. During the dry season, some Lao farmers rent their paddy fields to Chinese farmers, who grow watermelon and other vegetables during 5-6 months, and return to China with their produce after the harvest. The increasing number of land concessions reported during the past few years is also a clear sign of the fact that land is becoming an increasingly important asset.

In addition to the boom in commercial farming, there has also been an increase in the exploitation of non-timber forest products like bamboo, rattan, tree fruit, broom grass, and medicinal or fragrant plants. Apart from their use for subsistence needs, these products are important sources of income for the local population, especially in the uplands. Some of the most important commercial plant species are cardamom and palm nuts. Several species of bamboo shoot are collected throughout the northern region, processed locally, and exported to both Thailand and China. Moreover, the increasing contacts with China, which have largely developed as a result of the Northern Economic

Corridor, have also stimulated economic activity outside the agricultural sector. Tourism and transit trade have increased, bringing investments in various service industries, and light manufacturing industry has also expanded. Recent industrial developments include Chinese-owned motorcycle and cigarette lighter factories and battery production in Oudomxai (Andersson et al. 2007; Lyttleton et al. 2004).

Although these developments are clearly visible on the ground, they are difficult to document given the lack of systematic data on small scale production and informal trade in Laos. Yet, there is evidence from case studies confirming that commercial agricultural in northern Laos began to expand from the late 1990s. For instance, Thongmanivong and Fujita (2006) report a notable reduction in shifting agriculture and an increase in permanent agriculture in the four northern provinces Bokeo, Luang Namtha, Oudomxay, and Luang Prabang already during the second half of the 1990s, as well as rapid increases in cash crop production. Lyttleton et al. (2004) examine developments in some villages in Luang Namtha, and emphasize the importance of improved road infrastructure – in particular, the construction of a road link between China and Thailand, passing through the province – for economic development. Table 4 shows both how agricultural exports to China from the Muang Sing district in Luang Namtha, which was the main target of their study, were growing rapidly in 2001-2003, and how the relative importance of different crops varied between the two growing seasons.

Table 4. Value of agricultural exports, Muang Sing district, 2001/01-2002/03 (millon KIP)

Export product	Destination	2001/02	*2002/03*
Rice	China	3870	*3000*
Maize	China	3750	*13000*
Garlic	China	240	*150*
Sugar cane	China	1120	*2844*
Livestock	Thailand	176	*173*
Firewood	China	16	--
Watermelon	China	1280	--
Cardamom	China	105	--
Bark	China	112	--
Grass	Thailand	450	--
Capsicum	China	--	*600*
Total		***11119***	***19767***

Source: Lyttleton et al (2004).

More recent information on export licenses from the northern provinces Luang Namtha and Oudomxay in 2006-2007 (see Table 5) also highlight the fact that China is the main export destination and that agricultural commodities account for a high share of exports. An important caveat is that these figures refer to export licenses rather than actual trade. Unfortunately, it is not possible to compare these figures with actual trade volumes, since official data are incomplete: for instance, UNDP (2006) reports that almost none of the agricultural exports from the northern provinces in 2005-2006 were registered in official statistics.

Table 5. Export licenses from Luang Namtha and Oudomxay in 2006/07 (9 months)

Luang Namtha	USD	Oudomxay	USD
Exports to China	***4,550,593***	***Exports to China***	***4,747,629***
Wood and processed wood	99,618	Agricultural products	3,453,986
Forest products	72,942	Wood products	171,918
Agricultural products	2,474,525	Processed wood	1,071,070
Buffalos	26,250	Other	50,655
Gold	513,855		
Rubies	1,363,403		
Exports to Vietnam	***2,745***	***Exports to Vietnam***	***837,845***
Agricultural products	2,745	Wheat flour	764,981
		Flowers	53,618
		Soy beans	19,247
Exports to Thailand	***1,660,328***	***Exports to Thailand***	--
Wood and processed wood	21,569		
Forest products	219,181		
Agricultural products	10,045		
Rubies	1,409,533		
Total	***6,213,666***	***Total***	***5,585,474***

Source: Data provided by Department of Export and Import, Ministry of Commerce and Industry Lao PDR.

The structure of trade in southern Laos differs in several ways from that in the north. One notable point is that the south has not experienced any boom in agricultural exports comparable to that in the north. Farmers in southern Laos do export various commodities to Thailand and Vietnam, but their exports have developed gradually and have not been strongly affected by recent infrastructure projects that have opened up new markets in the neighboring countries. Moreover, the commodities from small farms in Laos are not very competitive in comparison with products from Vietnam and Thailand, with a few exceptions. The outlier is the Lao coffee industry, which has managed to capture a position in the global market. Another difference is that large firms have a more dominant position in the southern part of the country. An increasing share of agricultural exports comes from large plantations rather than small farms – this is true even for the coffee sector, which used to be based on small-scale production. The mining and hydropower industries, which hold a large share of total exports from southern Laos, are of course also based on large enterprises. The Sepon mining complex, which is the largest site for copper and gold mining in Laos, is located in Savannaketh in the southern part of the country, and several other mines for limestone, tin, and gypsum are found in the neighboring provinces. Including projects under construction, the country's hydropower capacity is evenly divided between the southern and central parts of the country – so far, the northern provinces only have marginal investments.

The development in the coffee sector can be used to illustrate the changing character of export agriculture in southern Laos. Coffee was first introduced to Laos by the colonial French in the early 1900s. Production is concentrated in and around the Bolaven Plateau in the south, which has the most suitable conditions for growing coffee. The industry was weak until the 1980s, when the government encouraged lowland farmers to start coffee production: coffee was used to repay debt to the Soviet block and Vietnam. Coffee production was mainly carried out by small farmers, with the government acting as a coordinator for the collection and export of the coffee. In the mid-1990s, the government began to encourage private sector investment in coffee production. Coffee was promoted as an export commodity to diversify exports and many private investors entered coffee trading during the mid-1990s when the world market prices reached record levels. As a result, total production volume grew by a factor of five during the 1990s. Thanks to the good physical conditions for coffee cultivation, Lao coffee is known for its high quality, and Europe has remained the main export destination even after the collapse of the Soviet block: Germany and France are the most important individual export markets.

Until the first half of the 2000s, Lao coffee producers could be divided into three categories: small plantations with an area of 4-10 hectares, smalll farmers growing coffee in combination with other crops on a cultivated area of 1-3 hectares, and small farmers with a variable area for coffee production as a source of supplementary income when coffee prices were high. The individual farmers were generally not in direct contact with the market, but relied on pick-up agents, who bought coffee from farmers and sold to wholesalers and exporters, who delivered the green beans to their foreign customers. Each of the links in the value chain were clearly separated: the farmers cultivated the coffee, pick-up agents collected the coffee and transported it to wholesalers, and the wholesalers and exporters secured the necessary documents relating to country of origin and phytosanitary status of the coffee shipment. Roasting, milling, and packaging for the consumer market were done by the foreign customers. Since then, the Lao coffee industry has changed substantially.

In 2002 the world market for coffee fell dramatically, hurting all participants in the value chain of coffee. It was obvious that a continued focus on exporting green unroasted beans would make Laos vulnerable to world market fluctuations, and that one way to reduce vulnerability was upgrading the value chain to include roasting, packaging, and milling. However, this would require larger firms that could cover the high fixed costs for essential investments in technology and equipment. By 2005, several large-scale producers had indeed emerged in the industry. Apart from growing coffee on plantations that measure 100-200 hectares, they buy large amounts of coffee from surrounding smaller farms, and dry, roast, mill and package the coffee on site. The fact that they control a larger share of the value chain has made it possible to upgrade the quality of the coffee itself (e.g. by controlling irrigation and fertilizer and pesticide use). The stricter quality control has trickled down to the smaller suppliers as well, since procurement prices vary depending on the quality of the coffee delivered to the large firms.

The increase in quality has been particularly important for branding, which is not limited to the export market. New brands and differentiated roasts have been introduced also for the domestic urban markets, and a wide range of new variants are now available at local markets and supermarkets in Pakse, Savannahkhet and Vientiane. While coffee is still a relatively rare example of an agricultural industry that has been able to raise the value added of domestic raw materials, it represents an ongoing development process where local firms are gradually moving upwards in the value added chain, where production is becoming increasingly complex, and where large firms firms become more important actors. This process has reached further in southern Laos than in the northern parts of the country, as indicated by the higher average income level in the south.

4. Effects on development and poverty reduction

Both the northern and southern parts of Laos have been able to benefit from the opportunities created by the economic reforms and the increasing outward orientation of the Lao economy during the past decades, despite the differences in initial development levels and economic structures. In the northern parts of the country, growth has largely been driven by integration with China. While the ultimate driving force for this development may be strong Chinese demand for raw materials, the growth of both formal and informal trade has been facilitated by trade liberalization and infrastructure development. In particular, the Northern Economic Corridor has been important for reducing the transaction costs in trade between Laos and China. In the southern parts of the country, growth is related to larger-scale exploitation of natural resources. This includes agricultural commodities and wood and wood products, where the production structure is more concentrated than in the north, as well as mining and hydropower, where large fixed costs necessitate a large scale of operations. China appears among the export destinations for the larger producers in southern Laos, but does not have the dominant position it enjoys in the north – Thailand and Vietnam are more important trade partners.

Table 6 shows how the average annual per capita consumption developed in the different regions of the country between 1997/98 and 2002/03, when comprehensive household surveys were undertaken in Laos. All major regions recorded higher per capita consumption during the period, in spite of the effects of the Asian crisis that erupted in 1997. Vientiane municipality, which is strongly integrated with the Thai economy, was an exception: the losses from the high inflation that was created by the macroeconomic instability in 1997 and 1998 had not been fully recovered by 2003. The highest average consumption growth rate was recorded in the southern parts of the country, but also the northern provinces managed to generate a growth rate above the national average.

Table 6. Average annual growth rates of per capita consumption 1997/98-2002/03 (per cent)

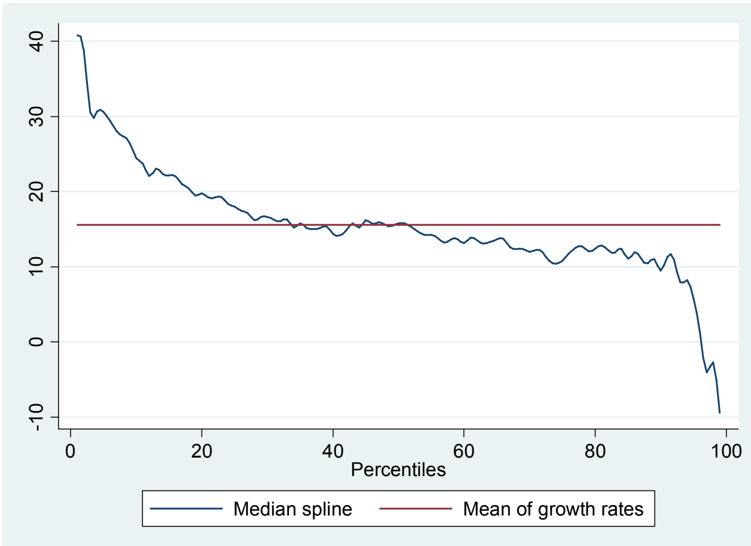
Region	North	Central	South	Vientiane M	Lao PDR
Growth rate	1.2 %	0.5 %	1.7 %	-0.4 %	0.8 %

Source: Andersson et al. (2007), Table 1.

However, growth has been distributed very differently in the northern and southern parts of the country. The main characteristic of the development in the north has arguably been that it is "inclusive": the transaction costs for trade with China have been low, and many actors – even small households with limited access to land, capital, and education – have been able to take part in the expanding market economy. The economy of southern Laos is more developed and the role of informal border trade for economic growth is limited. Growth is instead generated by interactions with more distant trade partners – relatively large shipments of coffee, wood products, and minerals are sold to the world market rather than to customers just across the border. The main actors in this development are large firms rather than small farms and households.

In Table 3 above, it was noted that incidence of poverty was higher in the northern parts of the country, at the same time as the rate of poverty reduction was faster. Figure 5 presents a growth incidence curve for the northern region, and confirms that growth was indeed biased in favor of the poorer population groups. The horizontal axis shows the households in the northern provinces according to their consumption percentile, with the richest households on the far right. The vertical axis shows the aggregate increase in consumption between 1997/87 and 2002/03. On average, consumption grew by about 16 percent over the period. It is interesting and remarkable that the initially poorest households increased their consumption most, while the households that exhibited the highest consumption levels in 1997/98 recorded the weakest development: for the richest percentiles, there was actually a decline in consumption.

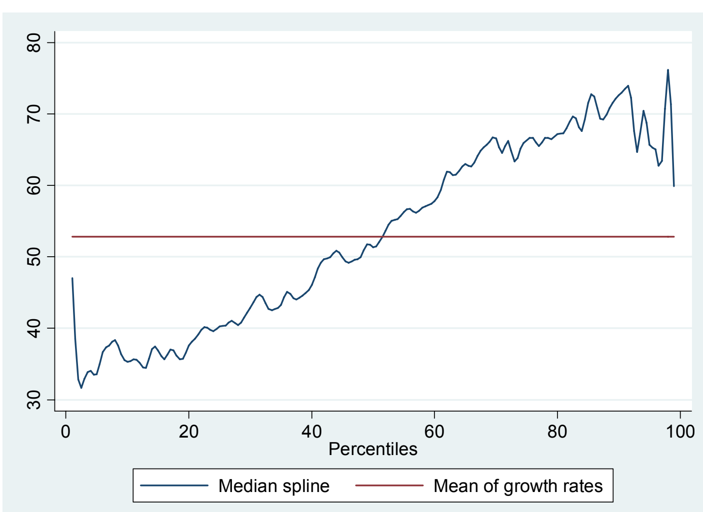
Figure 5. Growth incidence curve, northern Laos, 1997/98-2002/03



Source: Authors' calculations based on data from the Lao Expenditure and Consumption Surveys.

Figure 6 shows the corresponding data for the southern parts of the country. The average aggregate increase in consumption was much higher than in the north, at over 50 percent, but the distribution across households was very different: richer households grew faster.

Figure 6. Growth incidence curve, southern Laos, 1997/98-2002/03



Source: Authors' calculations based on data from the Lao Expenditure and Consumption Surveys.

With the exception of the poorest percentiles and the richest decile, consumption growth in the south was higher the higher the household's initial income and consumption level. This supports the argument that the main beneficiaries of the high economic growth in southern Laos were relatively affluent households with access to land, capital, and education. In other words, economic growth in the south resulted in increasing income and consumption gaps and higher inequality. However, it is important to note that even the poorest percentiles in the southern parts of the country experienced relatively high increases consumption.

Contrasting the experiences of northern and southern Lao PDR's relations with China, it is tempting to make a strong distinction between the two kinds of processes seen during the period 1997/1998 – 2002/03. The developments in northern Laos can be characterized in terms of economic integration. The prices for many commodities in China are higher than in Laos, and the possibilities to export to China have recently improved thanks to formal trade liberalization and improvements in transport infrastructure. Since the transaction costs for trade with China are low, it is possible for most farms and households to participate in and to benefit from trade with China. Developments in southern Laos, by contrast, can be described as internationalization. The international prices – or Chinese prices – for many commodities are higher than the local prices, but the transaction costs are also high because the customers are far away. This means that growth is concentrated to sectors with relatively large firms that are able to spread the fixed transaction costs across a high volume of output. In northern Laos, trade appears to have a pro-poor bias, since even small firms and households can profitably sell their produce to Chinese customers. Although the overall rate of growth is lower than in southern Laos, there is a stronger positive impact on poverty reduction. In southern Laos, trade seems to raise income gaps, since the main beneficiaries are individuals and firms that already have access to land, capital, and education. Yet, there is also a positive impact on poverty reduction: even the poorer population groups seem to benefit from increasing internationalization.

However, for a more accurate comparison between the north and the south, it is also necessary to take into account initial income levels. The positive impact of trade with China in northern Laos is not only due to the fact that trade costs are low, but also related to the low initial development level. The increasing demand from China has made a big impact partly because the economy of northern Laos was so weakly developed until the mid-1990s, when commercial relations between the two countries began to accelerate. Trade with China has contributed to a shift from subsistence farming to small-scale commercial agriculture, which has resulted in gains from international trade as well as gains from market orientation and specialization at the household level. Many of these gains had already been realized in the southern parts of Laos by the mid-1990s – in fact, the higher income and development levels in the south were partly due to established trade links with Thailand and Vietnam. Further growth and development has required a concentration of economic activity to larger units, as well as stronger focus on both human and physical capital. In this perspective, the distinction between northern and southern Laos is perhaps a more generic description of how economies at different stages of development can benefit from international trade. This notwithstanding, China plays a very different role for development in the two parts of the country. In the north, it is the main market and engine of growth; in the south, it is one among several foreign partners.

5. Concluding comments

This paper has examined trade policy, trade, and FDI in Lao PDR, with particular emphasis on the relations with China. The main findings and arguments of the paper are easily summarized in three points.

- Laos has gradually gone through a trade liberalization process that has contributed to substantial increases in exports, imports, and FDI during the past decade.
- China has not been a major destination for formal exports, although its importance for imports and FDI has increased in recent years. Only a few percent of official exports have directed to China (although there are substantial informal exports to China from the northern parts of Laos). The substantial inflows of

Chinese FDI, which are largely concentrated to export oriented activities, suggest that the importance of China as an export destination will increase in the future.

- The character and effects of trade with China are distinctly different in the northern and southern parts of the country. Demand from China has contributed to a shift from subsistence agriculture to commercial farming in the north, and helped reduce poverty in the least developed parts of Laos: the costs for trading with China have been low, and even poor households have been able to benefit from trade opportunities. Because of higher transaction costs (mainly due to weak transport infrastructure), only a few larger firms from southern Laos have been engaged in exports to China. To benefit from these exports, it has been increasingly important to have access to human and physical capital. Exports from southern Laos have also contributed to poverty reduction, but the main benefits have accrued to individuals and households that were initially relatively wealthy.

The differences between the northern and southern parts of the country are interesting, because they reflect two different types of relations to the Chinese market. In the north, local markets are becoming increasingly integrated with the Chinese market, and the low transaction costs for trade with China mean that the effects are widely dispersed across the regional economy. In the south, China is considered a distant trade partner that is mainly of interest for some sectors where Laos holds strong comparative advantages. While the experiences of northern Laos are probably hard to replicate elsewhere (except perhaps in some of the other weakly developed countries bordering on China), the situation in southern Laos may be similar to that in many other developing countries. China is an important potential market for some commodities, but substantial investment is required to realize this potential and the benefits will not be distributed equally across the population.

The distinction between the north and the south is also related to the initial development levels in the two regions. At the very early stages of development, it may be possible to generate conditions for "inclusive" growth, where large shares of the population are able to benefit from higher prices for agricultural export goods that are produced as a supplement to subsistence farming. At later stages of development, further growth calls for a shift towards higher value added activities that require human and physical capital. Since these assets are not likely to be equally distributed among the population, neither are the benefits of trade and growth. This distinction suggests that the situation in northern Laos will gradually become more similar to that in southern Laos: once the benefits from the first round of integration with China are realized, further gains will require more physical and human capital as well as larger firms.

A notable similarity between northern and southern Laos is that both parts of the country are influenced in a similar way by imports from China. The abundant supply of cheap consumer and capital goods from Chinese (and Thai) producers will hold back the development of a domestic manufacturing industry: it will be difficult for Lao producers to compete with Chinese firms that can build their competitiveness on a large domestic market where both human capital and cheap unskilled labor are plentiful. The changes in the Lao coffee sector, where local firms have gradually been able to upgrade their production and move up the value chain, illustrate a feasible development path also for other resource based industries in Laos.

It is likely that many other developing countries will find themselves in a similar position vis-à-vis China in the future: while there are ample opportunities to benefit from commodity exports to China, there is also tough competition that limits the short-run growth potential in many labor-intensive manufacturing industries. With increasing wages and a gradual reduction of the Chinese surplus of unskilled labor – largely driven by demographic factors – there may in the long run be new opportunities in labor intensive industry for other developing countries, but the short run strategies of many countries should probably focus on gradual upgrading of resource based industries.

Notes

[1] Apart from the goods in the *Inclusion List* that are subject to tariff reductions, each member country also has the right to place a small number of products in a *Highly Sensitive List* and a *General Exception List*. The tariffs on these products – e.g. rice, which is typically considered a sensitive commodity – are allowed to remain higher. See http://www.aseansec.org/12021.htm.

[2] The data on imports by most of the trade partners of Lao PDR are recorded in the UN Comtrade database. Laos is not included as a reporter in Comtrade because of problems with data availability and quality.

Bibliography

Bourdet, Y. (2000), *The Economics of Transition in Laos – From Socialism to ASEAN Integration*, Edgar Elgar Publishing, Cheltenham.

Fane, G. (2006), ”Trade liberalization, economic reform and poverty reduction in Lao PDR”, *Journal of the Asia Pacific Economy* Vol. 11, pp. 213–226

Kokko, A. and M. Zejan (1996), ”Planned and Failed Foreign Direct Investment in Viet Nam”, *Asia-Pacific Development Journal*, Vol. 3, pp. 37-54.

Lyttleton, C, P. Cohen, H. Rattanavong, B. Thongkhamhane, and S. Sisaengrat (2004), *Watermelons, Bars and Trucks: Dangerous Intersections in Northwest Lao PDR*, Lao Institute for Cultural Research and Macquarie University, Vientiane.

Messerli P, A. Heinimann, M. Epprecht, S. Phonesaly, C. Thiraka, N. Minot (2008), *Socio-Economic Atlas of the Lao PDR – an Analysis based on the 2005 Population and Housing Census*. Swiss National Center of Competence in Research, University of Bern, Bern and Vientiane.

NERI (2006), “Cross-Border Trade in the Northern Part of Lao PDR: A Case Study of Lao-Chinese Border Trade in Luang Namtha and Oudomxay Provinces: A Technical Background Paper to the Third Lao PDR National Human Development Report”, National Economic Research Institute and UNDP, Vientiane.

Pholsena, V. and R. Banomyong (2006), *Laos - from Buffer State to Crossroads?,* Mekong Press, Chiang Mai.

Shingu, K. (2006), “Final Report for Mining, Infrastructure and Environment: Sector Plan for Sustainable Development of the Mining Sector in the Lao PDR”, World Bank, Washington, DC.

Sisouphanthong B. and C. Taillard (2000), *Atlas of Laos – Spatial Structure of the Economic and Social Development of the Lao People's Democratic Republic*, Silkworm Books, Chiang Mai.

Thongmanivong, S. and Y. Fujita (2006), "Recent Land Use and Livelihood Transitions in Northern Laos", Mountain Research and Development, Vol. 26:3, pp. 237-244.

UNDP (2006), *International Trade and Human Development: National Human Development Report Lao PDR 2006*, Committee for Planning and Investment, National Statistics Centre, and United Nations Development Programme, Vientiane.

Walker, A. (1999). *The Legend of the Golden Boat: Regulation, Trade and Traders in the Borderlands of of Laos, Thailand, China, and Burma*, Curzon, Richmond Surrey.

World Bank (2006), *Building Export Competitiveness in Laos: Summary Report*, World Bank, Washington, DC.