

“Operationalising Pro- Poor Growth”

A joint initiative of
AFD, BMZ (GTZ, KfW Development Bank), DFID, and the World Bank

A Country Case Study on Vietnam

Rainer Klump and Thomas Bonschab

October 2004

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For further information, please contact:

AFD: Jacky Amprou Amprouj@afd.fr

BMZ: Birgit Pickel Pickel@bmz.bund.de

DFID: Manu Manthri M-manthri@dfid.gov.uk and Christian Rogg C-rogg@dfid.gov.uk

GTZ: Hartmut Janus Hartmut.Janus@gtz.de

KfW Development Bank: Annette Langhammer Annette.Langhammer@kfw.de

World Bank: Louise Cord Lcord@worldbank.org and Ignacio Fiestas lfiestas@worldbank.org

Thomas Bonschab* and Rainer Klump*

**Operationalizing Pro-Poor Growth:
Case Study Vietnam**

Final Draft September 2004 (revised)

Introduction

Thirty years after the end of the war between the two parts of the country Vietnam is considered as a potential new Asian “tiger”, combining high rates of economic growth with outstanding success in poverty reduction. These achievements, however, did only occur after the ruling Communist leaders have implemented major economic reforms since the mid 80s as a reaction to a deep economic crisis. Under the name of *doi moi* - meaning renovation – the reform package that is still not yet completed aims at internal economic liberalization and external re-integration in order to catch-up again with the already successful Asian neighbour countries.

In this paper we will investigate:

- how pro-poor growth in Vietnam can be measured
- what factors and policies were responsible for pro-poor growth in Vietnam
- why pronounced spatial differences in pro-poor growth could emerge
- what the prospects are for further pro-poor growth in Vietnam given the ongoing changes in some of the initial conditions

* University of Frankfurt. Our special thanks go to Julie Litchfield and Pham Thai Hung (University of Sussex) and to Patricia Prüfer (University of Frankfurt) for their support in handling the Vietnamese household data and to Le Dang Doanh (MPI, Hanoi) and Nguyen Thi Tue Anh (CIEM, Hanoi) for sharing with us their profound expertise on the sources and the effects of economic reforms in Vietnam.

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Chapter 1: Historical context, general development trends and a framework for pro-poor growth analysis

1.1 The historical background for *doi moi* economic reforms in 1986

Vietnam has a total land area of about 331,000 square kilometres, stretching from China in the North to the Gulf of Siam in the South. With a population of 79.7 million in 2002 this means an average density of 240 inhabitants per square kilometre. The country has three major geo-climatic zones: north, central and south. It composes 64 provinces and cities dispersed over 7 regions: Northern Uplands, Red River Delta (including Hanoi), North Central Coast, South Central Coast, Central Highlands, South East (including the main economic centre Ho Chi Minh City-Saigon) and Mekong River Delta. Vietnam is a multi-ethnic country with the Kinh majority as the dominant group. Kinh Vietnamese make up for about 65 million people and live in all provinces though they are particularly clustered in the delta areas and urban centres. More than 10% of the total population belong to one of the more than 50 ethnic minorities, predominantly living in rural areas (Bhushan et al. 2001). Overall, some 20% of the population live in urban areas and 80% in rural areas.

Vietnam's independence from France was officially acknowledged by the Geneva agreements in 1954. At that time the country's development level was fairly similar to that of its Asian neighbour countries. Per capita income relative to most neighbour countries was not lagging behind too much and about 50% higher than in China, the most important neighbour and historical opponent (see figure 1.1).

Table 1.1: Vietnam's per capita income relative to important neighbour countries

VIETNAM'S PER CAPITA INCOME RELATIVE TO (IN%):	1950	1960	1970	1975	1980	1990	1995	1998	1995	1999
Thailand	80.5	74.1	43.4	36.2	29.7	22.4	21.1	27.0	22.5	30.1
Rep. of Korea	85.5	72.3	37.6	22.5	18.4	11.9	11.8	13.8	11.2	13.2
Indonesia	78.3	78.4	61.6	47.2	40.5	41.3	42.1	54.6	41.8	55.5
China	149.9	118.7	93.9	81.2	71.0	56.0	52.9	52.8	54.0	57.3

Source: Data for 1950-1998 are taken from Van Arkadie and Mallon (2001), additional data for 1995 and 1999 are taken from the Worldbank Pro-Poor Growth Data Base.

Like many other East Asian countries Vietnam was characterized by abundance of unskilled and scarcity of land. The country had favourable geographic conditions with access to the sea and excellent ports along its long coast. The delta of the Red River in the North and the Mekong delta in the South have long been fertile rice growing regions. For centuries Vietnam experienced intensive cultural and economic exchange with China in the North and with diverse nations around the Gulf of Siam in the South. However, Vietnam was not able to make use of its favourable pre-conditions as the country was divided into the north and the south between 1955 and 1975, with two different economic and political systems. Both parts of the countries, supported by their various international allies, fought a cruel war against each other, which did not end before the fall of Saigon in 1975.

Since 1955 the north already developed under communist principles. Farmers and handicrafts were collectivised, the private sector eliminated and a centrally planned economy with emphasis on heavy industries with large state owned enterprises (SOEs) was built up. At the same time a determined government policy established high levels of education and health care. As early as 1958 illiteracy was virtually eliminated in the North. An early land reform resulted in a comparatively equal distribution of land among households.¹ In contrast, the south, which was heavily supported by the US, developed a capitalist system integrated into international markets with a strong dominance in light industries and services. Whatever the merits or disadvantages of the individual paths, Vietnam's overall performance relative to other East Asian economies declined constantly in this period (see figure 1.1) since ever more resources were absorbed by the needs of the war.

The adoption of a targeted strategy for Vietnam's development was only possible after the country's reunification in 1975. Despite concerns even from within the Communist Party, this development strategy was based on the implementation of socialist system of North Vietnam in the south. All land was collectivised, markets gradually abolished, prices controlled, and it was attempted to erect an orthodox socialist economy with strict central planning of production and investment following the model of the Soviet Union. Figure 1.1 reveals that these measures resulted in a further decline of Vietnam's per capita income relative to neighbouring countries. Most noticeable, Vietnam lost further ground against China, where the transition to a market economy was already under way. Political tension with China and its allies in these years resulted in open military conflicts, such as the Vietnamese invasion into Cambodia in 1978 and fights along the Chinese border in 1979. Both political and economic reasons spurred a mass exodus of ethnic Chinese who had been the backbone of South Vietnam's market economy. During this time Vietnam's position further worsened relative to its neighbouring countries, and, perhaps most important, the distance to China grew dramatically. The country found itself politically and economically largely isolate not only from the US, but also from China and almost all neighbouring Asian countries. Access to funds from the International Monetary Fund, the World Bank or the Asian Development Bank was prevented by the US until 1993. Only the Soviet Union, which experienced a growing economic crisis itself, lent – though constantly declining – political and financial support.

Given this no longer sustainable situation the necessity for fundamental economic reforms was evident. However, Vietnamese political leaders were still lacking a comprehensive reform concept. Modifications in the central planning mechanisms started somewhat isolated and gradual at the micro level in the agricultural sector. Since 1981 the “contract system” allowed farmers to use some land plots independently from the policies of cooperatives and thus to experiment in free market exercises. Also, some SOEs were allowed to act more market oriented. However, these early reforms did not address key issues of pricing, financial discipline and macroeconomic management of the economy. As a result, public and trade deficits increased alarmingly, and so did the inflation rate which went up to a peak of more than 700% in 1986. Fluctuations in rice production in the mid 80's led to a situation of near-famine in some rural provinces and made rice imports necessary despite the lack of high foreign exchange reserves and the decline in external assistance.

In this critical situation the Sixth Congress of the Communist Party of Vietnam (CPV) approved a more comprehensive reform agenda under the name of *doi moi* (renovation) in 1986. The same congress saw the replacement of old guard leaders who had ruled the country since the times of war and the nomination of a new leadership with Nguyen Van Linh as

¹ The World Bank Database on Gini coefficients for land distribution documents for (North) Vietnam in 1960 a value of 0.583 which is among the lowest in the world at that time.

Secretary General of the CPV (until 1991) and Do Muoi as Prime Minister (from 1988 until 1991) who then became Secretary General himself (until 1997). His successors at the top of CPV were Le Kha Phieu (until 2001) and Nong Duc Manh (since then). *Doi moi* recognized the essential role of a multi-ownership structure of the economy and more discipline with regard to macroeconomic management. Following along these lines, the rationing system for many commodities was abolished in 1987, and many prices adjusted to free market pricing. By 1990, nearly all commodity prices were market determined. The moving out of Cambodia in 1989 and the lifting of the US embargo in 1993 opened up the road for a political and economic reintegration of Vietnam into the international community. By the end of the first decade of reforms Vietnam was able to catch up with most of the more advanced neighbour countries and at least to stop the continuous falling back behind China. This success became important for the ongoing political support of the *doi moi* process by CPV leaders.

The new and sustainable development strategy was adapted to the particular needs of Vietnam. However, it could take into account experiences from China where economic reforms had already demonstrated success since the late 1970s as well as from the 'Asian miracle' economies in North East and South East Asia. Vietnamese leaders gained various insights from its successful Asian neighbours (Leipziger and Thomas 1993): (1) sustainable growth in a market economy has to be based on outward orientation, macroeconomic stability and investment in people, (2) market economies can be compatible with authoritarian control of the society, i.e. the ruling elites can sell economic success as their own achievement, and (3) growth with equity is feasible in the sense that market economies do not necessarily result in the evils of mass poverty and exploitation.

In addition the following favourable historical and external conditions contributed to a successful start of economic transformation: (1) The heritage of a functioning market economy in the south and the flexibility and pragmatism with central economic management which was a characteristic of North Vietnam's economic system during the years of war (2) Almost three million Vietnamese living in more developed countries all over the world which contributed financial support for family members, knowledge transfer and international business networks for (3) The dominance of the agricultural sector where successful economic transformation can be much faster and easier achieved than in a large state-owned industrial sector (4) The geographic location in one of the most booming region of the world economy. Given these favourable conditions the significant relative backwardness of Vietnam against its Asian neighbours in the 1980s, as it is documented in Table 1.1, created a high potential for an economic catching-up process.

1.2 General trends in growth, poverty reduction and inequality

Since the onset of Vietnam's *doi moi* reforms the country has experienced a period of remarkable success in economic growth and development. Table 1.2 (a) summarizes the main achievements. With an average GDP growth rate of almost 7% over the whole period Vietnam was one of the fastest growing economies in the world. Neither the Asian economic crises in the late 1990s nor the SARS epidemic in more recent times could stop this outstanding development, although the very high growth rates of the early 1990s could not be sustained. Over the entire period population growth could be significantly reduced (White et al. 2001) so that rates of per-capita growth with a long-term average of 5% are even more impressive. Also the steady increase of the HDI underlines the very positive development record.

Table 1.2 (a) Indicators of growth and development in Vietnam 1980-2001

INDICATORS OF GROWTH AND DEVELOPMENT	1980-1986	1987-1991	1992-1997	1998-2001	1987-2001
Average annual rates of real GDP growth (in %)	4.88	5.05	8.77	6.04	6.8
Population growth (in %)	2.2	1.9	1.9	1.5	1.8
GDP per capita growth (in %)	2.66	3.15	6.87	4.54	5
GDP per capita (in thousand VND at PPP in 1996 prices)	1045,986 (1984)	1190,056 (1990)	1521,767 (1995)	1957,481 (1999)	
Population (in mill.)	54 (1980)	66 (1990)	72 (1995)	78 (2000)	
HDI (value)	0.582(1985)	0.603 (1990)	0.646 (1995)	0.688 (2000)	

Sources: GSO, Worldbank Pro-Poor Growth Database, Worldbank (2003), and UNDP

In allowing for some simplification, Vietnam's growth experience under *doi moi* can be distinguished into three phases. The first phase (1986-1991) ended with the macroeconomic stabilization that paved the way for a reintegration into world markets. This happened with great success and highest growth rates in the second phase (1992-1997), lasting until the outbreak of the Asian crisis. Since 1998 a new phase of growth has begun in which further development of internal sources of growth has received more attention while external liberalization continues. Vietnam joined the ASEAN free trade area (AFTA) in 1995, became a full member of the Asia-Pacific Economic Cooperation Forum (APEC) in 1998, ratified a bilateral trade agreement with the USA in December 2001 and is currently negotiating membership to WTO. The further structural characteristics of the three phases of growth will be analysed in more details below.

Table 1.2 (b): Indicators of poverty in Vietnam 1990-2002

INDICATORS ON POVERTY AND INEQUALITY (IN %)	1990	1993	1998	2002
National poverty rate (GSO)	65	58.1	37.4	28.9
Food poverty rate (GSO)		24.9	15.0	10.9
Poverty gap (GSO)		18.5	9.5	6.9
Poverty gap squared (GSO)		8.3	3.6	2.6
MOLISA poverty rate (whole country)		25	16	12.4
International 1\$ per day rate	50.8	39.9	16.4	13.6
International 2\$ per day rate	87	80.5	65.4	58.2

Sources: Worldbank (2003), Steering Committee of CPRGS (2003) and MPI

Table 1.2 (b) documents that *doi moi* also resulted in an impressive reduction of poverty in Vietnam. Conceptual differences in the definition of the various poverty lines are explained in Appendix 1. It is estimated that before 1986 the national poverty in Vietnam ranged between 74 and 78% (Dollar and Litvack 1998). No matter what poverty measure is

applied, all figures indicate that after the implementation of economic reforms poverty has more than halved in only one decade. The depth of poverty and the severity of poverty have even been reduced faster.

In a global comparison with other developing countries the pace at which Vietnam alleviated poverty over the past decade is almost unmatched (see World Bank 2003). This achievement is not diminished when the trend is considered in the context of other Asian countries, but it also reveals how much this extraordinary pace in poverty reduction is needed if Vietnam wants to be on track with its neighbours. For example, China reduced absolute poverty (measured by the International 1 \$ per day rate) from 32% in 1990 to around 17% in 1999, whereas Thailand began its voyage from 11% in 1985 and now hovers at around 2%, and Malaysia started from an already low 5,6% in 1989 and virtually eliminated poverty after a recorded 1% in 1995. Poverty in Laos comes closest to Vietnam with a first time recording of 26,3% in 2001.

In its recently published Comprehensive Poverty Reduction and Growth Strategy (CPRGS) the Vietnamese government aims at achieving a national poverty rate of fewer than 20% by 2010 (Socialist Republic of Vietnam 2002). If this ambitious goal can be met will not only depend on a continuation of the positive growth record, but also on future trends in inequality. The data in Table 1.2 (c) show, that Vietnam’s aggregate Gini-coefficient was relatively low at the beginning of the reform period, certainly a result of the long socialist era. However, the Gini considerably increases over time, especially since 1998. Also, the steadily growing factor between expenditures of the riches and the poorest quintile of the population shows further signs of growing distributional imbalances which seems alarming to some observers (Fritzen 2002).

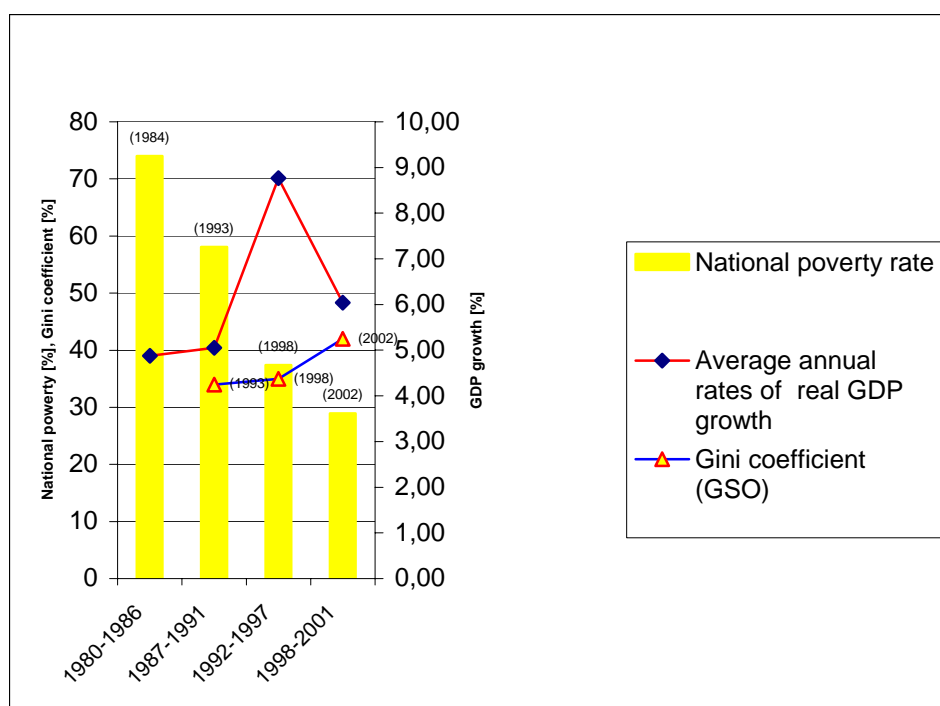
Table 1.2 (c): Indicators of inequality in Vietnam 1993-2002

INDICATORS OF INEQUALITY (IN %)	1993	1998	2002
Gini coefficient (GSO)	0.34	0.35	0.42
Ratio of richest/poorest expenditure quintile (WB/GSO)	4.97	5.49	6.03

Sources: Worldbank (2003), GSO

Figure 1.2 summarizes the general trends in growth, poverty reduction and inequality in Vietnam between 1986 and 2002. It suggests that future achievements in aggregate poverty reduction will crucially depend on future trends in growth and inequality. The ambitious goals of the Vietnamese CPRGS will only be realized if growth rates can be maintained at the high levels of the past and the rise of inequality can be limited.

Figure 1.2: Key trends in growth, poverty reduction and inequality



Source: see Tables 1.2 (a)-(c)

1.3 A conceptual framework for pro-poor growth analysis in Vietnam

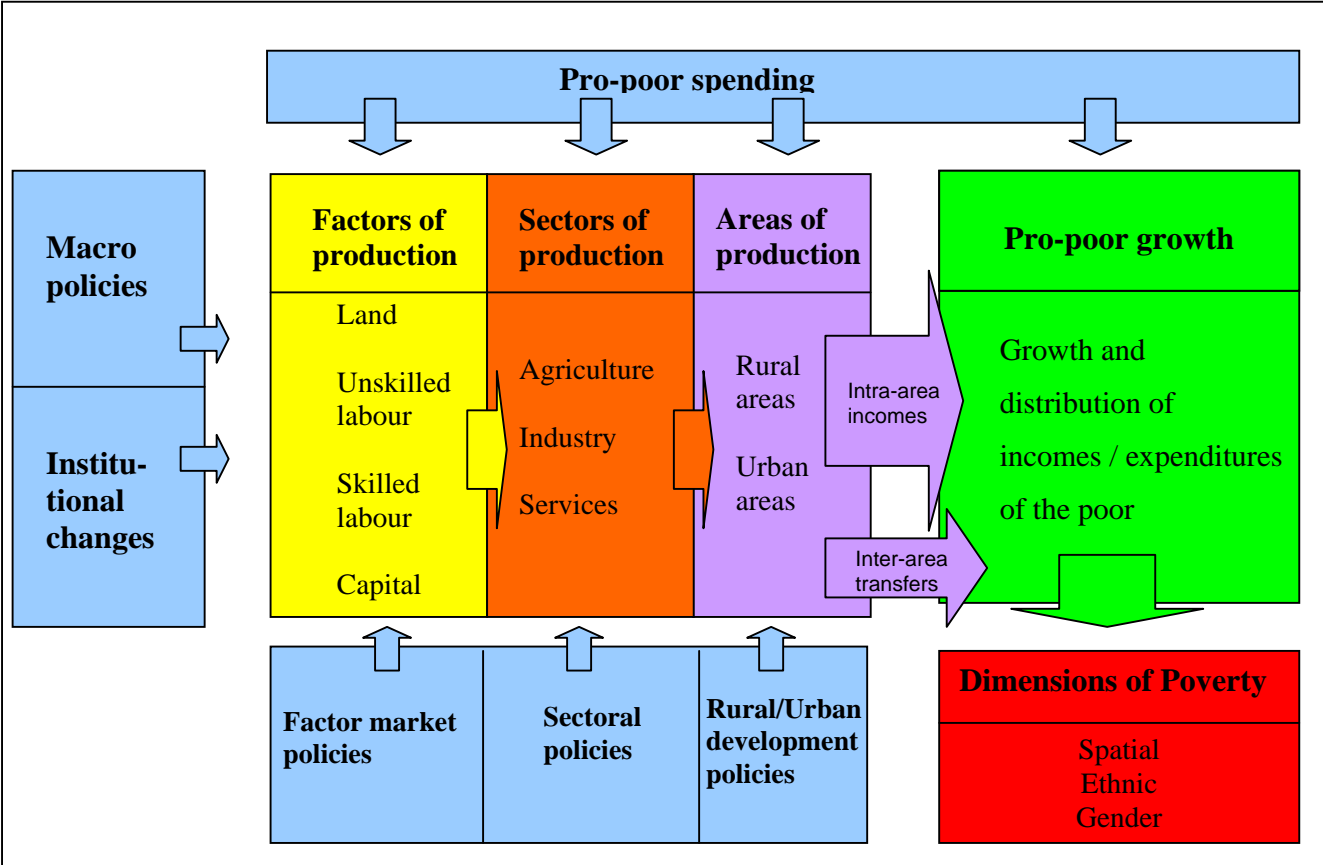
From a general point of view pro-poor growth may be ascribed to specific ways of income generation and income (re) distribution, which favour the poor. In addition to indicators for aggregate performance, poverty dynamics in developing countries can be analysed and evaluated according to spatial, gender and ethnic dimensions. In order to identify possibilities for policy intervention one has to further break up the process of pro-poor growth and distinguish three different stages in production, income generation and income (re)distribution which have an impact on the outcome of pro-poor growth (see Figure 1.3). The elementary factors of production – land, (unskilled and skilled) labour and capital – are used in different proportions in the sectoral production processes for agriculture, industry and services. Typically, rural and urban areas draw on those factors of production in a different way, thereby stimulating production in a different combination of sectors and generating unequal income opportunities. Since productivity and income are usually higher in urban areas, some scope emerges for inter-area transfers via internal migration and voluntary remittances in order to alleviate the situation of the poor in rural areas. This entire process of production, income generation and (re)distribution is affected by specific policies on each step, by the set of existing institutions and by macro economic policies. Pro-poor spending has an immediate impact on the well being of the poor via direct public transfers but it can also indirectly influence the availability to the poor’s productive assets (by investing in health and education programs) as well as the sector and area composition of production.

Since the onset of economic reforms in the 1980s Vietnam was able to achieve impressive rates of aggregate growth and an extraordinary reduction of aggregate poverty. However, a look at the spatial dimension of growth and poverty reduction reveals growing imbalances. The ethnic dimension, where imbalances are also growing, and the gender dimension, which shows much more balanced results, can both be related directly to the same

sources as the spatial imbalances. These sources are changing patterns of rural and urban development during the different phases of Vietnam’s growth. Much of the astounding growth and poverty effects in the first phase were due to prudent agricultural policies, which made the most efficient use of the unskilled labour force of the rural poor. The second phase witnessed a growing role of urban centres in spurring economic growth and the shift towards a more capital and skill-intensive production which is supported by FDI. Although direct channels between growth and poverty reduction have been weakened by this development, indirect channels via intra-area voluntary remittances and public transfers gained more importance. Facing growing spatial imbalances, the still lasting third phase tries to combine the positive results of both earlier episodes. New efforts for developing non-agricultural employment in rural areas are combined with further world market integration and a strengthening of private and public channels, which redistribute from urban to rural areas.

The general conceptual framework of pro-poor growth analysis and its application to the case of Vietnam allows us to mark out the emphasis of our country study. Chapter 2 will be dedicated to the analysis of Vietnam’s aggregate pro-poor growth achievements and its various dimensions. As will be shown in detail the spatial dimension is the most relevant to our further analysis. Chapter 3 will then investigate the contribution of different factors and policies to pro-poor growth. We will start with the specific policies affecting factor markets, sectors of production and area of development.

Figure 1.3: A general conceptual framework for pro-poor growth analysis



Even if the focus of our analysis will be on labour markets, agriculture and rural development, we shall also take into account the effects of industry-based urban development since the beginning of the second phase. We will then investigate the direct and indirect effects of pro-poor spending. We shall conclude with an assessment of macro policies

(including trade policy) and institutional changes (with a focus on various dimensions of decentralisation), both of which play an important role for future successes in pro-poor growth. This last point will be further developed in Chapter 4 where we discuss three major trade-offs between pro-growth and pro-poor strategies for Vietnam. The first trade-off is related to the pace of further external liberalization, the second deals with further regional imbalances of growth and the last trade-off discusses priorities in pro-poor spending for rural areas. Policy recommendations, which aim at preventing further growth of spatial imbalances in pro-poor growth, are developed in the last chapter. It is argued that the future well being of the rural poor is positively influenced by the creation of more non-agricultural rural employment, which will heavily depend on the further expansion of the private enterprise sector. In addition, via remittances to rural areas (as long as social problems can be kept under control) internal migration could contribute to sharing the fruits of faster urban development. There is no doubt, however, that public pro-poor spending will have to play a major or even growing part in the future, so that the management of political, financial and administrative decentralisation will be a key factor of Vietnamese future pro-poor growth achievements.

Chapter 2: Dimensions of poverty and the sources of pro-poor growth in Vietnam

2.1 Dimensions of poverty in Vietnam

As already demonstrated in Table 1.2 (b) above, Vietnam's economic growth over the past decades was associated with a remarkably strong overall reduction of poverty incidences. However, the household survey data also point to significant variances in the rates of poverty reduction once they are disaggregated into the most relevant dimensions. We look first more closely at the spatial dimensions of poverty (see Table 2.1 (a)). The three Vietnamese household surveys provide data for poverty rates at the level of the seven regions (not the provinces) and at the level of urban and rural areas. At the same level of disaggregation also Gini coefficients for expenditures are available.

Table 2.1 (a): Spatial dimensions of poverty and inequality in Vietnam

		POVERTY RATES (HEADCOUNT INDEX IN %)			SHARE OF POPULATION (IN %)			GINI COEFFICIENTS (IN %)		
		1993	1998	2002	1993	1998	2002	1993	1998	2002
YEARS		1993	1998	2002	1993	1998	2002	1993	1998	2002
National dimensions		58.1	37.4	28.9	100	100	100	0.34	0.35	0.42
Regional dimension	Northern Uplands	81.5	64.2	43.9	15.6	18	15	0.25	0.26	
	▪ North East	86.1	62	38.4	--	--	12			0.36
	▪ North West	81.0	73.4	68.0	--	--	3			0.37
	Red River Delta	62.7	29.3	22.4	21.6	20	22	0.32	0.32	0.39
	North Central Coast	74.5	48.1	43.9	12.8	14	13	0.25	0.29	0.36
	South Central Coast	47.2	34.5	25.2	12.6	11	8	0.36	0.33	0.35
	Central Highlands	70.0	52.4	51.8	3.2	4	6	0.31	0.31	0.37
	South East	37.0	12.2	10.6	12.6	13	15	0.36	0.36	0.42
	Mekong Delta	47.1	36.9	23.4	22.4	21	21	0.33	0.30	0.39
Area dimension	Urban areas	25.1	9.2	6.6	19.9	20.9	23.23	0.35	0.34	0.41
	Rural areas	66.4	45.5	35.6	80.1	79.1	76.77	0.28	0.27	0.36

Source: Worldbank (2003) and GSO. Regions are defined as in 2002. Gini coefficients are calculated for expenditures.

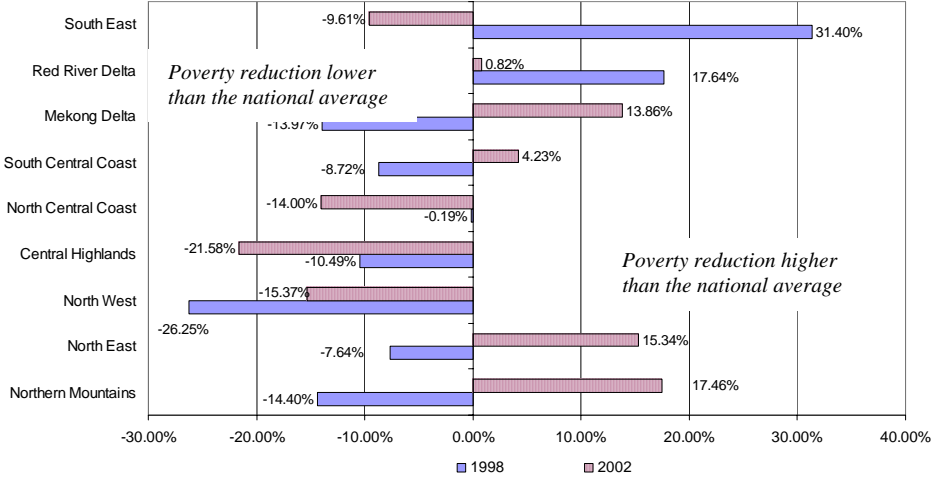
As the figures reveal, some regions like South East and Mekong Delta and South Central Coast (all located in the south of the country) had lower incidences of poverty than the national average throughout all periods. Red River Delta joined this group in the second phase of growth. North Central Coast, North West and North East (important parts of the

north of the country) and Central Highlands in the south are characterized by incidences of poverty higher than the national average in all periods. Red River Delta, South East and Mekong River Delta, which unite more than 50% of Vietnam’s population, have witnessed a dramatic increase in inequality during the last phase of growth. The Northern Uplands also recorded a pronounced jump in Gini coefficients. Only in South Central Coast Gini coefficients grew rather slowly.

Regional poverty incidences are closely related to area poverty rates, since the regions with disproportional reduction in poverty are those with a higher share of urban areas, whereas Central Highlands and North West are mainly rural regions. The figures show that poverty is still significantly higher among rural households that are the overwhelming majority in Vietnam. After falling slightly during the mid 90s, the Gini coefficient rose significantly both in rural and in urban areas.

Table 2.1 (a) also implies that the national average of the rate of poverty reduction was -35.63% between 1993 and 1998 and -22.73% between 1998 and 2002. Again we can identify a (weak) uneven regional development (see Figure 2.1 (a)). Most notably, the regions South East (hosting HCMC) and Red River Delta (hosting Hanoi) fared above average in what has been described as the second phase of growth in the early 90s. At least on the face of it, the third phase of growth since the late 90s does not seem to produce comparable success in poverty reduction for these regions. However, one has to take into account that the poverty rate in these regions is well below the national average, which makes further achievements in poverty reduction more difficult. In addition, the two metropolitan centres are increasingly facing new kinds of urban poverty (due to migration), as will be discussed below. The data also suggest that main beneficiaries in the third phase of growth were North East, Mekong Delta and South Central Coast. The North Central Coast region, and especially Central Highlands and North West lagged behind in both periods.

Figure 2.1 (a): Variations of regional rates from the national rate of poverty reduction (in percentage points)



Source: Worldbank (2003)

The growing regional disparity is also confirmed by another observation (WB 2003). Although the absolute number of poor is highest in high population density areas, the contribution of low population density regions in the national poverty is rising, especially for the Central Highlands. While the contributions of the North Central Coast, Northern Mountains, and Mekong Delta to the national poverty were relatively stable, the reductions in

those of the Red River Delta and the South East capture the increasing contribution of the Central Highlands and South Central Coast in the overall poverty incidence.²

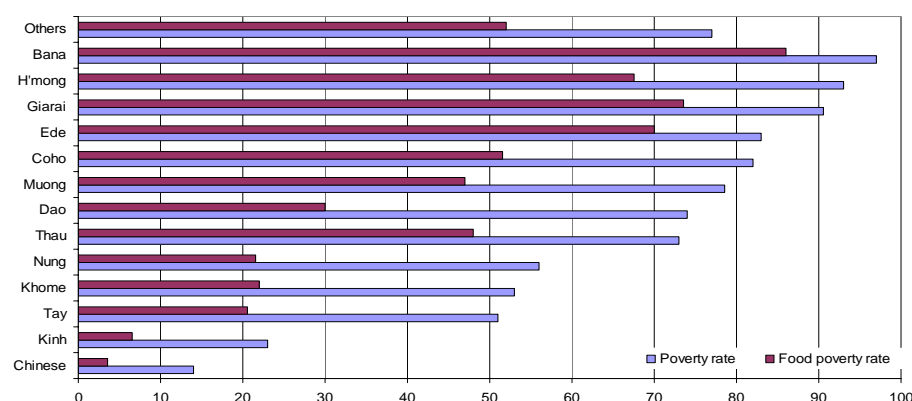
Table 2.1 (b): Ethnic and gender dimensions of poverty in Vietnam

YEARS		POVERTY RATES (HEADCOUNT INDEX IN %)			SHARFE OF POPULATION (IN %)		
		1993	1998	2002	1993	1998	2002
Ethnic dimension	Kinh and Chinese	53.9	31.1	23.1	86.9	85.3	
	Ethnic minorities	86.4	75.2	69.3	13.1	14.7	
Gender dimension	Male-headed households	61	40	31	77.5	78.4	77.58
	Female-headed households	48	28	20	22.5	21.6	22.42

Source: Worldbank (2003), Glewwe et al. (2002)

Table 2.1 (b) shows the ethnic and gender dimensions of poverty in Vietnam. Both are strongly related to the spatial dimension. Vietnam's ethnic minorities live in the less populated rural regions and account for the increasing share of these regions in the contribution to overall poverty. Across all regions the data reveal that ethnic minorities did not only enjoy a much smaller reduction of absolute poverty, their expenditures often remained far below the poverty line (see Figure 2.1 (b)).

Figure 2.1 (b): Poverty rates across ethnic groups in 2002



Source: Worldbank (2003); the poverty rates are calculated only for the ethnic groups with at least 100 households in the sample of VHLSS 2002

The gender dimension of Vietnam's poverty profile seems to be surprising at first glance, with female-headed households showing less poverty than male-headed households. However, the gender of the household head is only a very rough indicator of differences in well being between men and women. Other indicators will be analysed below. Female-headed

² More detailed information about the spatial dimension of poverty in Vietnam can be drawn from various poverty mappings which are based on different survey data; for an overview see Minot and Baulch (2004).

households are usually smaller, are more typical in urban areas and often receive remittances from husbands working elsewhere in the country or overseas (UNDP 2003). Rural female-headed households, however, are usually very poor or face a very high vulnerability of falling into poverty (Man Loi 1996, Centre for International Development 2002)).

Table 2.1 (c) provides further insight into the socio-characteristics of Vietnam's poverty profile and continues earlier work by Glewwe et al. (2002) by incorporating information from the most recent 2002 household survey. First, the larger the household size and the higher the number of children, the higher the likelihood of living in poverty. Interestingly, there is a trend for household size, i.e. the number of children per household, to decrease between 1992 and 2002. Second, turning to the occupational status of the household head, the largest population group working in the agricultural sector is also the most successful group in terms of poverty reduction. Third, as could be expected, high levels of education for the household head pay off in terms of poverty reduction. Population policy, sectoral policies with a focus on agriculture and human capital formation can thus be regarded as important components of a poverty reduction strategy. Their relative contribution to the pro-poor growth will be further analysed below.

It is interesting to evaluate the relative quantitative importance of these socio-characteristics and the purely economic determinants of poverty such as income growth. Balisacan et al. (2003) have recently analysed panel data of 4,302 households and a subsample of 3,494 rural households from the 1992/93 and 1997/97 surveys. They looked at the determinants of poverty across Vietnam's provinces, measured by the per capita expenditure of the lowest quintile. In a fixed effects regression they found that among a multitude of significant socio-economic variables (such as household size, number of children and gender of the household head) it is mean provincial income, which has the most significant, the highest (and of course positive) effect. The elasticity of local poverty reduction with regard to local income growth was found to be higher than 1.3, markedly higher than comparable estimates for Indonesia and the Philippines, and also higher than the cross-country averages reported by Dollar and Kraay (2002). Since the 2002 household survey does not have the appropriate panel dimension the estimations cannot be repeated with more recent data. However, we take these estimations as a support for our hypothesis that a proper understanding of the dynamics of pro-poor growth in Vietnam should pay special attention to its spatial dimensions.

Table 2.1 (c): Socio-characteristics of Vietnam's poverty profile

	HEADCOUNT INDEX (IN %)			SHARE OF PUPOLATION (%)		
	1993	1998	2002	1993	1998	2002
1. National Poverty	58.1	37.4	28.9	100.0	100.0	100.0
2. Household size						
Small (≤ 3 members)	45.95	16.95	16.69	12.22	12.14	14.83
Medium (3-6 members)	56.86	30.80	25.46	36.36	44.10	50.25
Large (≥ 6 members)	64.72	49.66	41.62	51.43	43.76	34.93
3. Number of children						
Number of children ≤ 2	55.92	34.33	24.80	48.69	56.60	57.07
Number of children 2-5	61.57	39.92	33.73	34.81	32.62	32.36
Number of children ≥ 5	66.11	45.64	44.75	16.50	10.79	10.58
4. Occupation of the household head (*)						
White collar	23.6	9.9	29.27	4.6	6.6	6.18
Sales	27.7	13.0	32.84	8.1	9.5	14.80
Agriculture	69.0	48.2	26.85	64.7	61.0	51.73
Production	45.9	26.0	38.55	10.9	11.5	14.20
Other/no work	44.4	27.4	28.83	11.7	11.3	13.10
5. Education of the household head						
No schooling	62.6	55.0	37.01	36.1	35.5	31.58
Primary	56.7	42.2	32.24	24.4	23.1	24.52
Low secondary	64.0	38.0	29.32	23.4	22.4	26.47
Upper secondary	44.5	25.1	18.46	4.7	5.2	8.39
Technical worker, vocational school or university degree	39.2	14.2	9.97	7.9	13.8	9.04

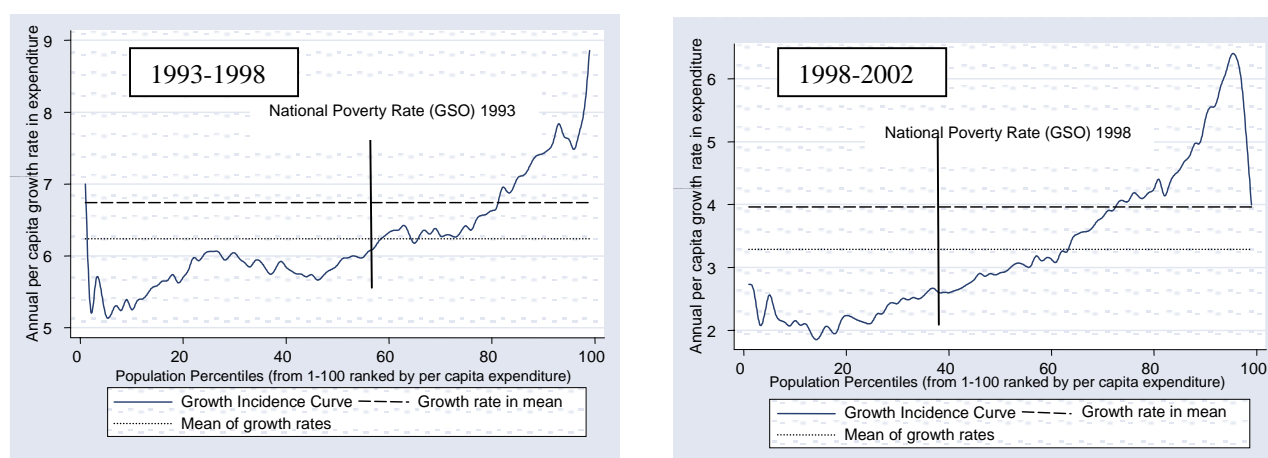
Sources: Results from 4, for 1993 and 1998 are taken from Justino and Litchfield (2003), the others are calculations from the VLSS 1992/1993; VLSS 1997/98; and VHLSS 2002;

(*) Ideally, the classification of occupation for VHLSS 2002 should follow the professional codes to be consistent with the VLSSs. However, the file_v (from VHLSS CD), the occupation code 92, namely "laundry, ironing" account for 54.47% of the total number of observations. Therefore, classifying occupation in accordance with the 2002 occupation codes will clearly be misleading. As an alternative, using industry codes are reluctant solution with *white collar* (codes 70-99, except 72, 73, 93, 95); *sales* (codes 50-67, plus 72, 73, 93, 95); *agriculture* (codes 01-05); *production* (codes 10-45); and *others/no work*.

2.2 Measurement of pro-poor growth in Vietnam

In this chapter the pro-poorness of growth in Vietnam is measured quantitatively. The conceptual details of the different measures are described in Appendix 2. The analysis starts with the construction of growth incidence curves (GICs) from data in the three available household surveys. Figure 2.2 (a), covering the two sub-periods between 1993 –1998 and 1998 – 2002, reveals remarkably similar shapes for both GICs. Both curves are on average increasing over the quantiles, what could be expected from the increase in the aggregate Gini coefficient. However, it is important to note that *all* quantiles experienced income growth during the reform process. In that sense growth in Vietnam was pro-poor.

Figure 2.2 (a): Growth incidence curves



A similar pattern of growth across all quantiles combined with increasing inequality also emerges from the calculation of the various rates of pro-poor growth (RPPG), which give higher weight to the income/expenditure growth of the poor. In both sub-periods the RPPGs are high but below the mean of the total growth rate (see Table 2.2.(a)). As the mean growth declined in the second sub-period, so did the RPPGs. However, the relative decline in the RPPGs was more pronounced than that in the aggregate growth rates. We will explain the underlying aggregate trends in growth and distribution by looking at the policies that affected the factors of production and the relative factor productivities in Vietnam.

Table 2.2 (a): Aggregate rates of pro-poor growth

ANNUAL GROWTH RATES (IN %)	1993-1998(1)	1998-2002 (2)	(2) / (1)	1993-2002
Growth rate in mean	6.74	3.96	0.59	5.5
Mean percentile growth rate	6.24	3.29	0.53	4.93
RPPG for the lowest quintile	5.54	2.17	0.39	4.03
RPPG for FGT(0) using national poverty line	5.73	2.24	0.39	4.27
RPPG for FGT(0) using food poverty line	5.59	2.07	0.37	4.06
RPPG for Watts index using national poverty line	5.44	2.23	0.41	3.94
RPPG for Watts index using food poverty line	5.22	1.92	0.37	3.86
Change in Gini coefficient	7.3	18.6	2.55	27.3

A remarkable feature of Vietnam's growth story (not only at the provincial but also at the aggregate level) is the very high poverty elasticity (see Table 2.2 (b)). No matter what poverty measure is used the poverty elasticity is overwhelmingly greater than one. Comparing the two sub-periods they have even increased for all measures. The results underline that growth seems to be the most effective determinant of poverty reduction.

Table 2.2 (b): Poverty elasticities to growth

	1993-1998	1998-2002	1993-2002
Elasticities for Watts indices			
• national poverty lines	-1.16	-1.41	-0.95
• food poverty lines	-1.35	-1.77	-1.07
Elasticities with national poverty line			
• FGT(0)	-0.86	-1.19	-0.77
• FGT(1)	-1.11	-1.35	-0.92
• FGT(2)	-1.24	-1.53	-1.00
Elasticities with food poverty line			
• FGT(0)	-1.21	-1.35	-0.97
• FGT(1)	-1.32	-1.70	-1.05
• FGT(2)	-1.39	-1.98	-1.10

The decomposition of Vietnam's poverty reduction into a growth and a distributional component gives more quantitative information on the poverty effects of rising inequality (see Table 2.2 (c)). Both calculations for the national poverty line and the food poverty line reveal that growth and redistributive components worked in opposite directions, with the relative weight on the redistributive component increasing in the second sub-period. The comparatively high poverty elasticity for this period reflects the fact that growth in this period was more effective in terms of poverty reduction since the poverty line had advanced more to the centre of the distribution. Households situated very near the poverty line needed only small growth impulses to cross this line. However, this also implies that the overall vulnerability of households to fall back into poverty had increased.

Table 2.2 (c): Datt-Ravallion decomposition of poverty changes (average effects)

	1993-1998	1998-2002	1993-2002
Change in national poverty rate	-0.222	-0.076	-0.298
• Growth component	-0.244	-0.117	-0.347
• Redistributive component	0.022	0.042	0.049
Change in food poverty rate	-0.187	-0.035	-0.222
• Growth component	-0.217	-0.069	-0.281
• Redistributive component	0.030	0.034	0.059

Table 2.2 (d) present results from two decompositions of poverty reduction drawing on spatial dimensions. The first distinguishes poverty reduction within rural and urban areas, population shifts between both areas (reflecting different patterns of population growth and internal migration) and the interaction between both. The second looks at the accumulated intra-regional poverty reduction, the inter-regional population shifts and the interaction

effects. As for Indonesia (Huppi and Ravallion 1991) the intra-sectoral effects are much higher than the inter-sectoral shift effects and the interaction effect is all negative. However, the pattern is different for the two sub-periods. In the second sub-period the urban contribution to total poverty reduction is more than halved, while the rural contribution has further increased. Also the contribution of population shifts has more than tripled. At the regional level the growing contribution of population shifts, pointing to increasing migration, is even more pronounced. While being negative in the first period, it becomes positive in the second. However, at the same time, the interaction effect has also increased.

Table 2.3 (d): Huppi-Ravallion decomposition of poverty change (area and regional)

		1993-1998	1998-2002	1993-2002
Intra-area effects (in %)	Rural	82.2	90.07	82.72
	Urban	16.3	6.78	14.16
	Total	99.1	96.85	96.78
Inter-area population shifts (in %)		1.07	3.84	4.31
Interaction effect (in %)		- 0.17	- 0.69	- 1.09
Total intra-regional effects (in%)		103.7	93.79	101.09
Inter-regional population shifts (in %)		- 3.42	14.91	- 0.14
Interaction effect (in %)		- 0.29	- 8.7	- 0.95

Finally, we look at the development of the RPPG in a spatial dimension, both with an area and with a regional perspective. Table 2.3.(e) shows us that with the relatively stable income distribution in the first sub-period the various RPPG did not deviate very much from the mean growth. In the second sub-period we find the remarkable result that the mean growth rate is still higher in urban areas than in rural areas, whereas the ranking has changed for the RPPG despite a stronger increase in inequality for the rural areas. We will explain this pattern in the context of rural and urban development strategies in Vietnam.

Table 2.3 (e): Urban and rural rates of pro-poor growth

ANNUAL AREA GROWTH RATES (IN %)	1993-1998		1998-2002	
	Urban	Rural	Urban	Rural
Growth rate in mean	10.1	5.74	4.74	3.09
Mean percentile growth rate	9.68	5.55	4.25	2.8
RPPG for the lowest quintile	8.79	4.92	2.06	2.20
PRRG for FGT (0) using n.p.l.	8.86	5.25	1.61	2.21
Change in Gini coefficient	- 2.8	- 3.5	20.6	33.3

Note: Calculations for the two sub-periods are not fully comparable due to changes in the classification of urban and rural areas.

Regional differences in the PRRG become obvious from Table 2.3 (f). In the first sub-period those regions with the highest mean growth (South East and Red River Delta) are also those with the highest RPPG, because the distribution of income did not change. In the Mekong River Delta, where the Gini coefficient declined, the RPPG even surpassed the mean growth rate. As we will show below this result can be traced back to adequate agricultural policies. The situation is completely different in the second sub-period. The strong increase in

inequality combined with lower growth makes the RPPG drop below the mean growth rates for almost all regions. The notable exception are South Central Coast, where inequality increases only slightly and the RPPG is above the mean growth rate and Central Highland where growth is highest, the increase in inequality is modest and at least the RPPG for the lowest quintile is spectacular. We will explain this pattern by pointing out particular sectoral and regional policies. The most desperate results can be found, however, in the North West, where inequality rises sharply so that the RPPG becomes even negative. In this region, which is the home of many ethnic minorities, it has to be studied, why targeted programs of pro-poor spending did not produce better results.

Table 2.3 (f): Regional rates of pro-poor growth

ANNUAL REGIONAL GROWTH RATES (IN %)			1993-1998					1998-2002							
	Northern Uplands	Red River Delta	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta	North West	North East	Red River Delta	North Central Coast	South Central Coast	Central Highlands	South East	Mekong River Delta
Growth rate in mean	5.89	9.5	8.12	5.45	4.79	12.37	3.56	4.0	6.95	3.86	1.64	3.51	5.12	4.12	4.53
Mean percentile growth rate	5.22	8.87	7.06	5.16	4.59	12.42	3.77	1.53	5.69	2.63	1.45	3.73	4.74	3.41	3.41
RPPG for the lowest quintile	4.17	7.31	6.05	4.74	4.71	12.58	5.20	- 0.30	3.73	1.35	0.26	5.92	8.30	2.22	2.22
PRRG for FGT (0) using n.p.l.	4.49	8.06	6.23	4.86	4.57	12.32	4.38	- 1.64	4.42	1.39	0.47	4.62	5.02	2.55	2.55
Change in Gini coefficient	4	0	16	- 8.3	0	0	- 9.1	38.5	42.3	21.2	24.1	6.1	19.4	16.7	30

2.3 Sources of growth in Vietnam

For a deeper understanding of the dynamics of pro-poor growth we finally have to analyse in more detail the sources of production and income generation in Vietnam. The country's growth process has witnessed important structural shifts, which have led us to the distinction between three different phases of *doi moi*. In this section we explain when, how and to what extent the factor and sector composition of Vietnam's growth changed. Our classification of three phases of growth in Vietnam under *doi moi* can be justified by looking at the sources of growth from different perspectives:

- a decomposition into the growth contributions of labour, capital and total factor productivity
- a decomposition into the relative shares of the main sectors (agriculture, industry, services) in GDP and in exports.
- a decomposition into important groups of owners (state, private, foreign investors)

Table 2.3 (a) summarizes results from a growth accounting that calculates the contributions of factor input growth and of total factor productivity to the average annual growth rates. The exact procedure is explained in Appendix 4. The results of this exercise reveal that the main immediate effect of the *doi moi* reform process consisted in creating a positive growth contribution of capital. Also the growth contribution of labour increased. The contribution of the statistically unexplained residuum dropped but was still highly dominant in the first phase after 1986, capturing the effects of technological catching-up after the first round of liberalisation. The second phase in the 1990s, with its very high growth rates until

the Asian crisis, is characterized by a remarkable growth contribution of capital whereas the contribution of labour declined and that of TFP dropped sharply. The third phase after the Asian crisis looks rather similar. The growth contributions of capital and labour still account for more than 80%, leaving less than one fifth for TFP.

Table 2.3 (a): Growth accounting for Vietnam 1980-2002

	1980-1986	1987-1991	1992-1997	1998-2002
Average annual GDP growth (in %)	4.88	5.05	8.77	6.04
Labour contribution to growth	21.5	34.6	15.9	20
Capital contribution to growth	- 8.3	5.1	69.3	57.5
TFP contribution to growth	86.9	60.3	14.8	22.5

Source: Le Dang Doanh et al. (2002), Fan et al. (2003)

This decomposition does not include human capital as a factor of production, since data for Vietnam do not allow a reasonable calculation of a stock of human capital. However, production elasticities for human capital based on gross and net school enrolment rates have recently been estimated for Vietnam in an aggregate production function for 1990-2000 and 1990-2002 by Nyguen Thi Tue Anh (2003). These estimations show that human capital contributed significantly and increasingly to Vietnam's growth whereas the production elasticity of real capital declined.

Table 2.3 (b): Structural changes in the Vietnamese economy 1986-2001

INDICATORS OF STRUCTURAL CHANGE	1986	1991	1996	2001	2003
Sectoral structure of total GDP at 1994 prices (in %)					
• Agriculture	34.74	30.74	25.06	22.40	21,0
• Industry	26.82	25.63	31.34	36.57	38,5
• Services	38.44	43.64	43.60	41.03	40,5
Sectoral structure of total employment (in %)					
• Agriculture	72.91	72.70	70.72	62.77	50,04
• Industry	13.87	11.25	11.52	14.42	16,41
• Services	13.22	16.05	17.77	22.82	24,55
Sectoral structure of total exports (in %)					
• Agriculture	--	52.2	42.3	39.4	29,4
• Mining industry	--	37.4	28.7	23.5	27,6
• Manufacturing	--	14.4	29.0	37.1	43,0

Source: Pham Lan Huong et al. (2003) on the basis of data from GSO and MOLISA, Doanh et al. on the basis of data from MOT

Looking at the ownership structure in Table 2.3(c) shows that the state-owned sector still holds a dominant share in total GDP and has even expanded in recent years, whereas the share of the private sector has relatively decreased. The table also reveals the important role of foreign investors in the second phase of the reform period. The increase of foreign investment in Vietnam stopped during the Asian crisis, but recovered shortly after. However, the high relative share in total investment for foreign investors in 1996 could not be regained. A very high share of state investment in the last phase replaced it, whereas private domestic investment further declined and remains remarkably low. Finally it should be noted that official development assistance (ODA) did not play a significant role at the beginning of the *doi moi* process, since it was almost completely blocked by the US government until 1993. Afterwards international ODA flows to Vietnam increased consecutively from some US\$ 200 million to more than US\$ 1,6 billion in 2000. For the current 5 Year Socio-Economic Plan 2001-2005 Vietnam plans a disbursement of ODA in the order of 10-11 Bill. US-Dollar, whereas FDI over the same period is expected to sum up to no more than 9-10 Bill. US-Dollar. This pattern clearly shows that ODA will play a much more pronounced part in the next phase of Vietnam's development (Norlund et al. 2003).

Table 2.3 (c): Ownership structure of GDP and total investment in Vietnam 1991-2000

INDICATORS	OF	1991	1996	2000
OWNERSHIP (IN %)				
Share of total GDP at current prices				
• State		31.1	39.9	39.0
• - SOE		22.2	30.5	--
• Non-state domestic		68.9	50.5	47.8
• Foreign-invested		0	7.4	13.3
Share of total investment				
• State		35.0	45.2	61.9
• Non-state domestic		50.0	26.2	19.5
• Foreign		15.0	28.6	18.6

Source: Doanh et al. (2002)

Chapter 3: Factors and policies affecting the poor in the growth process

3.1 Factors of production and factor market policies

As for most other developing countries unskilled labour is the most abundant asset of Vietnam's poor. This asset is mostly utilized in agricultural employment, which means that land is the dominant complementary factor of production. An obvious path to make growth 'pro-poor' was thus to increase output and efficiency of agriculture based on unskilled labour and land as factors of production. Indeed, much of Vietnam's early success in pro-poor growth was exactly owed to the increased employment of unskilled labour in the agricultural sector. However, since the shortage of arable land sets natural limits to this development strategy, further achievements in broadly shared growth had to rely much more on complementing unskilled labour by skilled labour and/or capital

The availability of unskilled labour is determined by the growth of the population. In a very general perspective Vietnam's achievements in aggregate per-capita growth and poverty reduction relied on a drop in population growth from a yearly average of 2.2% in the early 1980s to 1.5% in the late 1990s (see Table 1.2 (a)). The slow-down of fertility and population growth can be traced back to the combined effects of the economic reforms, which raised the opportunity costs for having children, the higher mobility of the population and the introduction of special measures of family planning (White et al. 2001). In 1988 the Vietnamese government officially proclaimed the "two-child policy" and adopted a comprehensive population policy under the Family Planning Program (FPP). FPP became a national target program, under which specialized health centres at the level of commune or districts were financed. Total public expenditure for FPP, as a percentage of total public health costs, increased from 3.5 % (1992) to 10.2 % (1999). Per capita public expenditure on FPP amounted to 0.3 US \$ in 1995, still a much lower value than in Asian neighbour countries (Nguyen Thi Tue Anh 2003, p. 236). Health is the other major determinant of the labour supply. As to the general health status, Vietnam performs still better than other countries at a similar development level but large discrepancies between rich and poor are noticeable and will probably increase. The most striking differences concern the health condition of children (Wagstaff and Nga Nguyet Nguyen 2004)

Throughout the 90s, significantly more than 50% of the poor lived in rural areas and depended primarily or exclusively on employment in agriculture. Estimations as to the exact share of the agricultural employment in total employment differ but range between around 60% and some 50% (Glewwe 2004). This made land the strategic complement for a successful pro-poor growth strategy. One of the pivotal steps in the *doi moi* reform process towards a market economy was therefore the decollectivisation of farmland. Following Resolution 10 in 1988, land use right were granted to individual households. On the basis of data from VLSS 1992/93 Ravallion and Van de Walle (2001) showed that the land was distributed in a remarkably egalitarian way. Later on, the new Land Law of 1993 laid the foundations for the growth of a market for land in rural Vietnam. The new law instituted the issuance of land use certificates to all rural households, enabling them to inherit, transfer, exchange, lease and mortgage their land use rights. By the year 2000 nearly 11 million land titles have been issued, making this one of the largest titling programs in the developing world, not only in scope but also in the speed of implementation (Quy Toan Do and Iyer 2004). However, the implementation of the new Land Law was characterized by pronounced provincial differences reflecting not only differences in bureaucratic capacities, but also inter-provincial differences in the handling of disputes. The improvement of land-related property rights had strongly pro-poor effects since it contributed to a higher diversification of rural incomes. The estimations by Quy Toan Do and Iyer (2004) based on VLSS data for 1993 and 1998 show that in provinces with a more advanced issuance of land using rights farmers

invested more long-term (in multi-year industrial and fruit crops) and could also devote more labour to non-farm activities (as a result of higher productivity in farming).

Natural constraints to this development strategy can, however, be recognized from the figures in Table 3.1 (a). The table reveals that already at the onset of the reform process in the 80s Vietnam's labour-land-ratio was significantly higher than in China, India or Indonesia (Macours and Swinnen 2002). Although new arable land could be gained between 1980 and 2000, rural population growth and the extension of agricultural employment led to an overall worsening of the labour-land ratio.

Table 3.1 (a): Agricultural labour-land-ratios in selected Asian countries 1980 - 2000

	Share of Rural population in total population		Agricultural land (1000 ha)		Total economic active population in agriculture (1000 Persons)		Agricultural labour-land-ratio (Persons/ha)	
	1980	2000	1980	2000	1980	2000	1980	2000
Vietnam	80.8	75.9	6,858	8,780	18,741	27,527	2.7	3.2
China	80.0	63.9	434,220	548,658	407,187	511,001	0.9	0.9
Myanmar	76.0	72.3	10,385	10,812	12,736	17,950	1.3	1.6
Indonesia	77.8	59.0	38,000	44,777	34,743	49,309	0.9	1.1
India	76.9	72.3	180,355	180,795	208,765	263,369	1.2	1.5
Bangladesh	85.1	75.0	9,758	9,084	30,157	38,530	3.1	4.2

Source: FAO Statistical Database

Vietnam's limited potentials with regard to further growth of arable land are largely due to geographical reasons. The rapid expansion of agricultural production in the early reform period has already induced greater scarcity of sown area and considerable erosion and pollution. The problem of erosion is particularly visible in the sloping-hill soils in central and northern Vietnam. Moreover, the main rice growing areas – Red River Delta and Mekong Delta – face serious biophysical constraints. “In the Red River Delta the primary constraint is low temperatures and blast problems. In the Mekong River Delta, the prevalence of acid-sulphate soils and saline soils constrain the use of imported cultivars. The Mekong River Delta is also affected by high pest infestations, especially sheath light and blast” (Pingalli and Vo-Tong Xuan, 1992, 716). Intensive research for cultivar development and crop and land management, which would raise the productivity of given arable land, have been limited in the first phase of *doi moi* (Pingalli and Vo-Tong Xuan, 1992) and, as will be argued in Chapter 4.3, higher agricultural research is still highly needed in order to promote both growth and poverty reduction in rural areas.

Given the relatively high scarcity of land, broad-based growth in Vietnam had to be based also on other complements to unskilled-labour, namely skilled labour and capital. One heritage of the socialist era is a literacy rate, which is very high by international standards. Even in the poorest quintile more than 70 % of adults can read. The literacy rate dropped for the first two quintiles between 1993 and 1998. Illiteracy became more and more concentrated in the bottom quintiles, leading to a higher concentration of poverty, whereas the top quintiles were able to take better advantage of their new opportunities. Literacy has been relatively

equal among men but more inequitable among women, due to an increase in illiteracy among poor women. At the tertiary level, very few students come from the poorest households, whereas enrollment of the upper quintiles increased (Bhushan et al. 2001).

Other aspects of human capital skills can be studied in Table 3.1 (b). The measured rates of human capital investment in Vietnam are high in international comparison and have steadily increased since the early 90s. Growing wealth seems to have induced a pronounced demand for education (Glewwe and Jacoby 2004). On the other hand, enrolment rates of the poorest quintile and of ethnic minorities started from such low values that even with high growth rates they have not been able to catch up with the national average. Other data show signs of growing inequality in lower secondary schools across the provinces and a gender gap in upper secondary enrolment. Growing regional inequality can be explained by the changing financing structure of education. Whereas communes and districts administrate primary schools, the provinces run the more costly secondary education. Given the high and even growing income differences, financial resources of the provinces differ enormously.

Table 3.1 (b): Net enrolment and human capital investment in Vietnam 1993-2002

NET ENROLMENT RATE (IN %) AND RATE OF CHANGE	PRIMARY			LOWER SECONDARY			UPPER SECONDARY		
	1993	1998	2002	1993	1998	2002	1993	1998	2002
Total country	86.7	91.4 (5.4)	90.1 (-1.4)	30.1	61.7 (105)	72.1 (16.9)	7.2	28.6 (297)	41.8 (46.1)
Poorest quintile	72.0	81.9 (11.4)	84.5 (3.2)	12.0	33.6 (180)	53.8 (60.1)	1.1	4.5 (309)	17.1 (280)
Rural	84.8	90.6 (6.8)	89.2 (- 1.55)	26.3	57.9 (121)	69.9 (20.8)	4.7	22.6 (381)	37.7 (66.8)
Ethnic minorities	63.8	82.2 (28.8)	80.0 (-2.6)	6.6	36.5 (453)	48.0 (31.5)	2.1	8.1 (285)	19.3 (136)
Human capital investment ratio (GER)				5.8	9.3	10.4			
Human capital investment ratio (NER)				4.6	7.5	8.3			

Source: WB (2003) and Nguyen Thi Tue Anh (2003). Human capital investment ratios are measured according to Mankiw, Romer and Weil (1992) as the percentage of the working age population enrolled in institutions of secondary education. Gross enrolment rates (GER) and net enrolment rates (NER) are distinguished.

If we finally turn to capital formation, it is interesting to note that although gross investment ratios in Vietnam have doubled from 15.0% in 1991 to 30% in 2000, this process went along with an increasing share of state investment, which is now more than 60% of the total. FDI peaked in the mid 90s with a share of over 30%, but then fell back to less than 20%, which is also the share of domestic –non-state investment. The development of a private capital market was the least successful part of the reform program. In July 2000, Vietnam established a new stock exchange in Ho Chi Minh City (Klump and Gottwald 2003). However, so far only few enterprises have been listed and the trading floor is still fairly quite.

The provincial convergence analysis by Bonschab and Klump (2003) revealed that for 1995-2000 intra-provincial capital mobility was rather weak so that existing differences in capital productivity were not eliminated. This result can be explained by the underdevelopment of formal financial institutions and financial markets and the relative inefficiency of informal institutions.

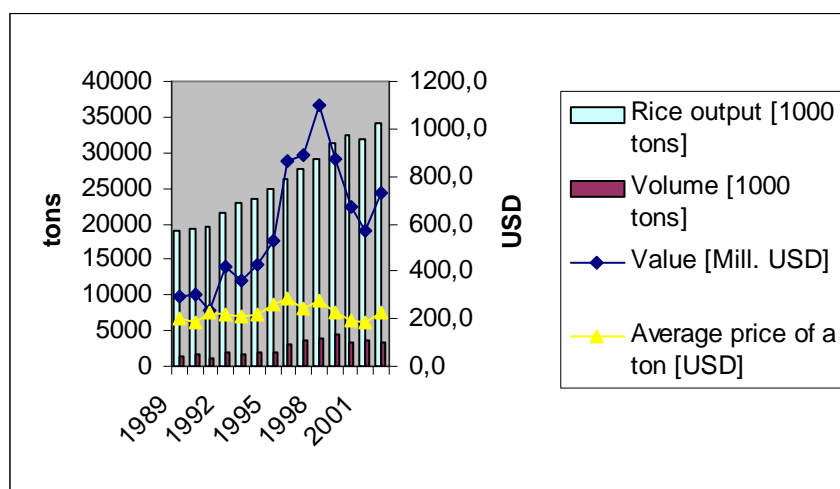
It is hard to measure exactly how much money is mobilised through the informal sector but it is evident that especially the rural sector and small economic activities are facilitated through informal credits. Most informal credits are provided either by wealthy private moneylenders, by mutual lending among family members, friends or neighbours or by so-called ROSCAs ('rotating savings and credit associations', i.e. family-or commercial-based self-help groups pooling money). Whereas mutual family/friend lending and ROSCAs lending is associated with low or zero interest, private moneylenders often take considerable interest rates. However, the informal sector is often considered to be superior to the formal sector. The 1993 VLSS lists that 73% of all households rely on informal credits. Moreover, the emerging private sector often uses the informal sector as a source of capital financing. There are various reasons for the relative persistence of the informal sector. First of all, the formal sector rarely satisfies credit needs for consumption. Poor farmers, for example, who need money due to poor harvest after a natural disaster or due to illness or wedding, do not easily receive emergency credit from formal lenders. In the absence of available sources of credit, they turn to informal lenders even though these may charge high interest rates (Wolz 1999).

3.2 Sectors of production and sectoral policies

Agricultural policy in Vietnam is traditionally dominated by rice policy. In more recent times, especially after signing the bilateral trade agreement with the US, fishery and farmed fishery have become more important, both with considerable growth of output value (GSO 2003). However, rice has a special importance in the agricultural sector, as many households at the bottom of the income distribution depend on it as either consumers and/or producers. Moreover, the government has a pronounced interest in issues related to rice since rice policy is associated with ensuring food security, at least since rice had to be imported in large amounts during the near-famine conditions in north Vietnam in 1987. The reform process in the 90s was marked by crucial shifts in the rice policy. In line with the opening up of the economy and the liberalization of markets, restrictions on rice exports and on internal barriers to trade in rice were relaxed, leading to an increase in real prices of rice. At the same time constraints to import fertilizers were reduced, so that prices for chemical fertilizers fell. Both price changes induced an overall output growth in rice of more than 20% and increased the incomes of farmers (Macours and Swinnen 2002). This development was backed by the extension of tenure security on land use and Vietnam's further integration into world agricultural markets.

Both the new land policy and the new rice policy spurred a development in which the most readily available factors of production – unskilled labour and land – could be more effectively used in the production process. Figure 3.2 shows that rice production in Vietnam has continuously been growing since the late 1980s. Vietnam was the country with the fastest increase of rice output in the world in the 1990s. According to FAO, Vietnam's growth rate of rice output in the 1990s was 5.3%, as compared to 1.5% in Pacific Asia. The growth in production contributed to rising exports, in volume and value, at least until the Asian crisis, when international demand dropped and export prices fell. Between 1992 and 1998 Vietnam's rice export values increased an average by 9.2% per year. Almost half of this increase was due to realignment of the exchange rate, a fifth due to increases in international rice prices and the remainder due to improved marketing efficiency and quality. But even after the crisis, Vietnam is still the second largest exporter of rice (exceeded only by Thailand).

Figure 3.2: Rice production and rice exports in Vietnam 1986-2001



Source: Nguyen Sinh Cúc (2003, p.354)

The overall household income growth during this period was no doubt spectacularly pro-poor, but with a distinct regional pattern. Most notably, rural households in the south experienced an income growth of 95%, whereas the rural north experienced a considerably lower growth of 55%. The ratio between north and south rural income fell to 0.69. Benjamin and Brand (2004) discuss various causes, which explain the inequality dynamics inherent to the expansion of agricultural production in between 1992 and 1998. First, the expansion of output and the integration into world agricultural markets was accompanied by commercialisation of the farm sector. This strategy was particularly implemented in the south. The household survey data (Worldbank 2003) that already in 1998 far more than half of crop output was marketed in the south (South Central Coast, Central Highland, South East and Mekong River Delta), compared to only one-third in the north. Until 2002 the south further increased commercialisation of crop output while the north did not proceed very much further. This pattern can be regarded as one explanation for relatively high rates of pro-poor growth in the southern regions of Vietnam in the last survey period. Second, regions producing a rice surplus tend to benefit from increasing rice prices while rice deficit regions loose. The specialization was very pronounced in the south (particularly South Central Coast, South East and Mekong River Delta), with only the Red River Delta producing some surplus in the north.³ Third, higher rice prices had ambiguous effects on the poor. On the one hand they generated higher income for rice-producing households, but they also increased the costs of the main food for poor. While such benefits and costs are shared relatively equally among households of the same type, the data suggest that the net benefits are higher for the many southern households specializing on rice production. This last point may partly explain the finding that the drift towards intra-regional inequality is slower than the one for inter-regional inequality (see also our poverty profile in chapter 2).

Despite the enormous success in the agricultural sector and the stunning reduction of headcount poverty associated with the extensive utilization of the production factors unskilled labour and land during this period, the 90s witnessed an overall shift away from agriculture. This shift can be observed from Table 3.3.

³ In 2003 the Red River Delta accounted for 19% of total output, compared to 51% in Mekong Delta in the south (Haughton et al. 2004)

Table 3.2: Sectoral employment elasticities and labour productivities 1986-2001

	1986-1991	1992-1997	1998-2001	1986-2001
Annual employment elasticity of growth (in%)				
Total economy	0.369	0.26	0.366	0.305
• Agriculture	0.533	0.394	-0.177	0.374
• Industry	-0.590	0.229	0.944	0.180
- Manufacturing	na	0.294	0.790	0.371
• Services	0.820	0.5	1.910	0.710
Annual labour productivity growth (in %)	(1987-1991)			(1987-2001)
Total economy	3.06	6.35	3.73	4.56
• Agriculture	0.68	2.79	4.67	2.59
• Industry	6.91	10.04	1.41	6.71
• Services	1.73	3.98	-3.12	1.34

Source: Pham Lan Huong et al. (2003)

As can be seen from the table, in the first phase of *doi moi* employment elasticity of growth was highest in agriculture. But agriculture had also to accommodate rural youth without other employment and was burdened by workers retrenched by SOE reform, so that productivity in agriculture in this period was rather low. Some of the retrenched workers were absorbed by the service sector, which was still very small and grew with high rates and low productivity. In the second period, total productivity growth strongly increased, leading to rising incomes. Highest sectoral productivity growth in this phase was in industry, but employment growth in industry remained moderate since some sectors were capital intensive, state-owned and/or import substituting. Thus employment elasticity of industry remained low. After the Asian crisis private sector development began to increase employment in industry and services, while productivity in these sectors fell. Agriculture reduced its employment but realized highest productivity growth. The relative decline of agriculture's share in GDP and the growing shares of industry and services were accompanied by a rise of wage-employment among Vietnam's labour force (Gallup 2002). In 1998 wage labour was the main source of income for about 18% of households. Between 1992 and 1998 average hourly wages increased by an astounding 10,5% per annum. But again, there is a distinct regional pattern to it. The two cities Hanoi and HCMC make up for 25% of the entire wage labour market and allow for wage premium of to 80% over rural areas. They are also the areas with the highest wage differentials. In contrast, outside the large and medium size cities a decreasing wage inequality between the two surveys could be observed. This accounts for the exceptional role of the growth centres in promoting spatial inequality, as will be discussed in chapter 3.3.

Given that Vietnam has once been a centrally planned economy, state-owned enterprises (SOEs) still plays an important role in industrial development. For many years reform efforts have been focused on a restructuring of the more than 12,000 SOEs existing in 1991, in order to make them more efficient and competitive. This number of SOEs has

dropped to roughly 6,000 in the mid 1994 by means of mergers with other SOEs or liquidation. The current number is roughly 4,700 (CIEM 2004). Although SOE reforms were a necessary step in the creation of more macroeconomic stability and thereby alleviating poverty, the downsizing of the public sector was also associated with massive lay-offs, especially in the early years. Between 1988 and 1992, almost one third of the 1988 state-enterprise labour force – around 800,000 workers – was made redundant (Dollar and Litvack 1998). Moreover, there was a distinct gender bias in these lay-offs. About 70% of the redundancies hit the female working population, with almost 20% of the total female wage employment in 1992/93 being laid off in 1990/91 alone (Rama 2002). However, this gender bias diminished over time and further downsizing of SOEs is not likely to hit women harder than men. In the sectors where Vietnam's SOEs are comparatively competitive – such as footwear, leather, textile and garment – they are dominated by female work force and overstaffing is absent. Over the 1990s the gender gap in earnings between men and women declined by about one third. Mincerian earning functions show that in the private sector the gap fell from 38.9% 1992/93 to 26.1 % 1997/98 and in the public sector from 28.8 to 18.5% .

Vietnam still maintains a policy of active involvement in industries of strategic importance. The flexibility of the interpretation – what is strategic and what is not – can be seen in the breadth of industries in which SOEs are present. Given the monopoly or dominating presence of SOEs coupled with the commonly found productivity problems, this can lead to abnormally high factor input prices for other companies. For example the private sector is facing high telecommunication and energy costs due to the lack of cost-competitive offerings. SOE dominance in cement effects construction costs, involvement in fertilizers and plant protection production effects agriculture costs. In addition, SOEs are involved in industries such as construction or food wholesale trading where they inhibit the growth of private enterprises if they can exercise market power. SOEs are most efficient where they are forced to compete with private (domestic or foreign) competitors, as e.g. in the export-oriented garment and textile sector.

One of the main reasons for the comparatively slow progress in SOE reforms is the strong economic and political link between SOEs and state-owned commercial banks (SOCBs). This linkage is reflected in the large share of non-performing loans (NPLs) in the SOCBs. There is only limited information available about the total share of NPLs, but some studies estimate up to 30% of all loans to be NPLs (Kovsted et al 2003). With the NPL problem essentially unsolved, investment in the real sector and thus Vietnam's entire pro-poor growth process is slowed down. NPLs reduce incentives of both international and domestic depositors and other banks to entrust savings or investments to Vietnam's state-owned banks. NPLs also strain the SOCBs themselves in that they divert managerial time and skill from other activities and reduce the funds available for new loans. The ongoing provision of NPLs supports inefficient SOEs, which in turn have burdening effects on Vietnam's growth process. Most important, in sectors where SOEs face productivity problems and are yet dominant they create higher input prices for other companies. For example the emerging private sector is facing high telecommunication and energy costs due to the lack of workable competition. SOE dominance in cement effects construction costs, involvement in fertilizers and plant protection production effects the costs of agricultural production (Klump 2003).

With regard to Vietnam's third phase of growth it is important to look at the dynamics in the private sector. In 1991 the first enterprise law became implemented. Subsequently, a steady stream of firm creations of around 5,600 registrations per year could be observed. In 2000 a significant amendment of the enterprise law was introduced. It simplified registration processes and licensing rules. The result was striking, as average yearly registration figures tripled to nearly 19,000 firms between 2000 and 2002. This increase in firm registration led to a shift in the employment structure (Klump 2003). While in the period from 1995 to 1999 private domestic firms created only 4 to 5% of jobs, this figure is estimated to have reached

15 to 30% in the period of 1999 to 2001. Importantly, this growth seems to have provoked a shift of job creation away from household enterprises. However, thus far this shift has had limited impact on overall labour markets. Currently, private domestic enterprises absorb only 2.8% of entire employment. Modelling the job composition with the presently observed 21,000 new firms per year until 2010 shows that this proportion would grow to 8.8% . Comparing this figure with the performance of other transition economies reveals that this share is too small to achieve effective results. For example, Russia started from a similar level of small-and medium enterprise share of employment at the beginning of its transition period and has improved this share to around 18% within 10 years.

There is a distinct geographic pattern in the registration of new enterprises. Hanoi and Ho Chi Minh City contributed only 30% of firm creations between 1997 and 1999. After the amendment of the enterprise law in 2000 this figure doubled to 60%. The neighbouring provinces accounted for an additional 15%. Thus, since 2000 only 25 to 28% of new firm creations occurred in genuinely rural provinces where most of the poor live. The main reasons for the shift of firm registration in the urban centres are the better infrastructure of cities (e.g. financing, access to customers) and more capable administrative processes. On the other hand, the spread of new enterprises among provinces is unequal but wider than FDI, suggesting that more dynamic provinces find it easier to take advantage of this new development (Dapice 2003).

Private domestic firms are highly concentrated in a few industries. 51% of new enterprises were involved in trade and retail – activities that have very low entry barriers such as low capital and knowledge requirements and face no competition from the otherwise dominating and privileged state-owned enterprises. Manufacturing is the other area of activity, concentrating mainly on food processing and the production of wood and textiles products. Though non-agricultural, and therefore an alternative to farm-based household enterprises, private sector enterprises have a low degree of diversification in activities. R&D investment by private Vietnamese firms are still very low (only 0.1% of the turnover). This may be an explanation for the declining growth rates of total factor productivity (Le Dang Doanh 2004). Thus far, the domestic private sector is a weak but potentially powerful instrument to induce broad-based growth.

3.3 Rural development and urban growth poles

Targeted regional development policies in Vietnam have focused on the development in the so-called growth-poles. These poles include the provinces around Hanoi (the “triangle” between Hanoi, Haiphong and Quang Ninh, as well as Hung Yen, Hai Duong, Bac Ninh, Vinh Phuc and Ha Tay), around DaNang (Thua Thien Hue, Da Nang, Quang Nam, Quang Ngai) and Ho Chi Minh City (the “quadrangle” consisting of HCMC, Binh Duong, Baria-Vung Tau und Dong Nai). These three areas are of central importance for the development record of the country. Their share in GDP rose from 42.5% in 1990 to 46.6% in 1995 and 54% in 2002. Their contribution to GDP growth is 60%, their contribution to the growth of industrial production is 72% and 59% to the growth of the service sector. In the three growth poles 88.5% of domestic investment and 96% of FDI is realised, they are responsible for 80% of Vietnam’s exports and 67% of state income (Le Dang Doanh 2004).

Even among the three growth poles there is a clear ranking. The southern pole is responsible for 33%, the northern pole for 23% and the central pole for only 2.5% of total GDP. It is planned to increase these figures to 35%, 23.5% and 4.6%, respectively, which would mean almost a doubling of the importance of the central zone. While HCMC and Hanoi are obvious candidates for the development of a growth pole, the development of the central pole is the result of deliberate government activities in order to expand industrial development in the poorer provinces of the central coast. There is some traceable motivation

for investing into an additional growth pole in the centre of the country. Historically, the city of Hue has been the capital of the Vietnamese empire for over a century and DaNang was one of the most important ports along Vietnam's coast. With major improvement in the road infrastructure it may well become the main port for Southern Laos and Northern Thailand. However, a major step for the development of the central pole was the decision, taken in 1994, to establish Vietnam's only oil refinery in Dung Quat, in the south of DaNang. This investment has cost some \$130 million a year. . One should remember that the rates of pro-poor growth between 1998 and 2002 were already higher than mean growth rates in South Central Coast in which DaNang is located and higher than in other parts of the country. This could be taken as an indicator that that investing the same amount of money into roads, schools or irrigation in poorer regions would probably have been more pro-poor for the country as a whole.

So far all three growth poles have been successful in attracting domestic and foreign investment, with the two poles in the north and in the south being far more relevant to the overall economic development. . However, they were not able to directly spread broad based growth into the poorer provinces. The major obstacle for such a spreading is the simple lack of infrastructure, including roads and telecommunication, but also financial and other business related services in poorer provinces (Le Dang Doanh 2004). Apart from being the backbone of Vietnam's continuous growth of GDP, the employment opportunities in the growth poles have also attracted migrants from poorer areas. The poverty effects of migration and the effects on regional development are ambiguous. Government policy in Vietnam distinguishes between (government) organized and spontaneous migration, where the latter is recognised population movement but not encouraged by the government. It is widely agreed that economic reasons and the search for a better livelihood are the main factors behind spontaneous migration (ILO et al 2003, Anh et al 2003, Oxfam 2003). The decision to migrate reflects income disparities between regions or rural areas and urban centres rather than other variables such as culture, marital status or religion. The incentive to migrate is a natural consequence of the government's decision to increase the dispersal of market forces in the economy and thus to incorporate even remote areas and their population, improve information flows and allow people to gain more awareness of emerging employment opportunities.

Although the issue of migration has recently received growing attention there are only limited reliable data available. The new 2002 VHLSS is of very limited help in analysing migration patterns as it contains a question on birthplace but no question on when that person moved, or for what reason. Most empirical information therefore draws on the national migration data collected by the 1999 Population and Housing Census, covering all provinces in Vietnam (CCSC 2000) as well as interviews with key stakeholders such as government agencies and international donors. The census measures residence changes between April 1994 and April 1999 and refers to registered households only. Unfortunately it provides only partial information since not all relevant migration movements are captured by the approach. For example, migrants who do not register at destination place are not counted as migrants. Likewise, temporary movements for short-term employment or other reasons that involve staying away from home on a regular basis, are not counted as migrants. Also, the census records only information about the time of the census but not about the time of migration, so that the group of earlier migrants is not included in the investigation.

Given these restrictions the census data allow identifying some general migration patterns. As to the magnitude of population flows, the census data indicate that 4.5 million people (i.e. 6.5% of the total 1999 population aged 5 years and older) moved residence between 1994 and 1999. However, one has to keep in mind that real numbers are presumably much higher once non-registered and temporary migrants are taken into account and the survey would be updated. As can be expected from the overall growth dynamics, most

migration flows responded to existing gaps in employment opportunities and income levels. Net in-migration was highest in HCMC with 8.15% and also relatively high in Hanoi (4.29%).

As for the demographic and social profile of migrants the census data indicate that migration is largely an option for young people and people from the more educated parts of society (see Table 3.3). According to the census 52% of all migrants were younger than 25 years and only 10.5% were older than 45 years, compared with 48% and 20% respectively for the non-migrant population. The data also reveal that migrants are often from the wealthier parts of society with better human capital endowment. Arguably education drives people to migrate in at least two ways. First, people move for education, and even more so for higher education. Second, a better education usually coincides with a better perception of economic opportunities and the possession of more information about occupational alternatives elsewhere in the country (Anh 2003) In this context, the completion of secondary education seems to mark a threshold. More than 16% with secondary education registered at another destination between 1994 and 1999.

Table 3.3: Education and gender characteristics of migrants

PERCENTAGE DISTRIBUTION OF MIGRANT STATUS BY SEX AND EDUCATION	MIGRANT STATUS							
	Non-migrant		Intra-provincial migrant		Inter-provincial migrant		Total	
	Number	%	Number	%	Number	%	Number	%
Male	20211256	93.2	747354	3.4	732630	3.4	21691240	100
Never attended	1255214	96.2	28223	2.2	20841	1.6	1304278	100
<Low Primary	3983720	95.9	98997	2.4	70575	1.7	4153202	100
<Upper Primary	9507783	95.3	226684	2.3	244377	2.4	9978844	100
<Secondary	2272178	92.1	104047	4.2	91581	3.7	2467806	100
Secondary	2560729	84.9	199251	6.6	256963	8.5	3016943	100
College/University	614128	82.1	86718	1.6	47409	6.3	748255	100
Higher	16702	80.1	3292	15.8	852	4.1	20846	100
Don't know	802	82.2	142	14.5	32	3.3	976	100
Female	21723931	92.8	995467	4.3	700432	3.0	23419830	100
Never attended	2998535	96.7	59961	1.9	43233	1.4	3101729	100
<Low Primary	5377291	95.3	158875	2.8	105176	1.9	5641342	100
<Upper Primary	9147150	93.8	334788	3.4	265354	2.7	9747292	100
<Secondary	1670465	90.6	107400	5.8	65770	3.6	1843635	100
Secondary	2095304	82.3	257693	10.1	192134	7.5	2545131	100
College/University	429167	80.6	75257	14.1	28282	5.3	532706	100
Higher	4940	77.2	1355	21.1	10,9	1.7	6412	100
Don't know	1071	67.7	136	8.7	37,4	23.6	1583	100
All	41935188	93.0	1742821	3.9	1433062	3.2	45111071	100
Never attended	4253749	96.5	88184	2.0	64073	1.5	4406006	100
<Low Primary	9361011	95.6	257872	2.6	175752	1.8	9794635	100
<Upper Primary	18654933	94.6	561472	2.8	509732	2.6	19226137	100
<Secondary	3942644	91,4	211447	4.9	157351	3.6	4311442	100
Secondary	4656033	83.7	456944	8.2	449097	8.1	5562074	100
College/University	1043295	81.4	161976	2.6	76690	5.9	1280961	100
Higher	21650	79.4	4646	17.0	961	3.5	27257	100
Don't know	1873	73.2	280	10.9	406	5.9	2559	100

Source: CCSC (2000)

The links between migration and labour markets is determined by the relatively rich human capital endowment of the majority of migrants. Only 3.2% of invalids embark on migration. Not surprisingly, ethnic minorities tend to migrate less, comprising only 4% of total recorded movement but representing as much as 14% of total population. According to the census data, about 25% of migrants are employed in the agriculture/forestry/fishery sector and nearly 16% in the industrial and construction sector. Around 60% migrate into the private sector (also counting micro units like households), and some 9.6% into the government sector.

Given the relatively equal proportion of the male/female ratio in total migration the census data suggest that women show the same migration pattern as men. This notwithstanding, various studies point to a distinct gender bias in Vietnam's migration pattern. A comparison with the old 1989 census shows that migration used to be an option more or less for the male population only and has become an option for both sexes during the 90s. This provides evidence for an increasing mobility of females relative to males. Taking into account that migration is predominantly motivated by a search for better livelihood and higher incomes we can infer that Vietnam's economic growth over the past decade has provided women workers with better opportunities, even made them the 'winners' of this development (Anh et al 2003).

However, the picture is ambiguous. Except for the FDI sector, female migrants are often confronted with relative disadvantages at destination places, such as smaller wages and bad health, social and occupational insurances. Many women find employment at labour-intensive manufacture industries and face very hard working conditions which often affect their health (Oxfam 2003, ILO et al 2003, Anh et al. 2003). Vietnam's migration dynamics may still have been pro-poor with regard to women but many disadvantages prevail. Despite these disadvantages, migrating female worker disproportionately contribute to making growth more pro-poor for the family members at their places of origin since women tend to remit much larger amounts of money than their male counterparts (ILO et al 2003).

Though to a different degree, both female and male migrants' willingness to remit a large share of income to the places of origin probably reflects the fact that migration is often a household strategy rather than an individual's decision. With limited access to arable land and income opportunities migration of one family member or more contributes to maximizing family income and reducing economic risks (Anh et al 2003, IOS 1998). The flow of remittances from migrant family members is often the most important source for cash income for their families and significantly reduces their vulnerability. The IOS survey from 1998 records that remittances from migrants make up for 60-70% of total cash income of rural households. The remittances are usually used for consumption – like buying basic food – rather than investment. From this perspective the flow of remittances can be understood as a highly pro-poor redistribution mechanism made possible only through the opening up of the economy and high economic growth. It is a mechanism that builds on Vietnam's strong family ties and the acceptance of migrants to compensate difficulties at destination places by better well-being of their families at home (Oxfam 2003). The pro-poorness of this mechanism is, however, counterbalanced by the above mentioned fact that most migrants come from the wealthier parts of the population so that their remittances increase existing inequalities in the poor areas.

The growing significance of migration movements resulting from the localisation of Vietnam's growth in the growth poles has also created new faces of poverty. Especially the cities HCMC and Hanoi are swamped with the large flow of migrants and are unable to meet the demands by building sufficient infrastructure and other services (World Bank 2003, ILO et al 2003). As a result, additional migration is often politically discouraged by, for example, denying permanent registration, issuing only temporary registration for money or by other means of creating barriers (Oxfam 2003). However, as long as the underlying economic incentives for migration remain as strong as in the past, such measures are likely to make

migration more costly to the migrants rather than preventing them. The result is that an increasing amount of migrants is bound to live in the informal sector. Living in the informal sector usually confines migrants to unskilled, low-paid and low-security labour. Living in the informal sector also means non-eligibility for services provided under the HEPR targeting program such as low interest loans, exemption from school fees etc. and lack of access to land and housing with water and sanitation infrastructure (Oxfam 2003, Anh et al 2003, see also next section). By and large, migrants living in the informal sector belong to the least protected in destination labour markets (ILO et al 2003). Once confined to the informal sector, weak infrastructure and services set high barriers for migrants to their mobility out of this situation (Anh et al 2003).

The main finding of the discussion is that internal migration both contributes to the further concentration of wealth in the growth poles and compensates this development through the transfer of remittances to poorer provinces. This compensating effect cannot be observed for money transfers from international migrants. Roughly three million Vietnamese live abroad, most of them in the US, Canada, Australia and France. International remittances have been growing over the past years. Taking account of money flows through official channels only, remittances from abroad increased from some 2,7 billion US\$ in 2002 and 2003 to 3,2 to 3,5 billion US\$ in 2004, according to a forecast by the central bank (ITPC 2004). The large bulk of overseas remittances flows into Vietnam's commercial centres – around 60% into HCMC alone –, thus further contributing to inequality between the growth poles and the rural areas. Most city residents who receive remittances in dollars sell them to banks against Vietnamese dong deposits, arguably in hope of higher interest returns. Overseas remittances add up considerably to foreign exchange reserves and stabilize the balance of payment. However, of all households only 5% receive remittances from abroad, whereas 18% of all households receive remittances from domestic migrants (Haughton 2004).

3.4 Pro-poor spending

Public spending can influence pro-poor growth directly and indirectly in various ways. It can try to manipulate the supply of strategic assets of the poor, such as unskilled labour (by investing in health and family planning) or human capital (by investing in the education system). Via SOE investments state agencies can also exercise a major influence on the sectoral and regional structure of production. Finally, there can be direct public measures to change the situation of the poor. After a brief look at the indirect ways we will concentrate in chapter on the direct measures of pro-poor spending.

Areas of public pro-poor spending in Vietnam include education, health, family planning, the Public Investment Program (PIP the special National Program for Hunger Eradication and Poverty Reduction (HEPR), the Program 135 for commune-level investments and special programs for ethnic minorities administered by the Commission for Ethnic Minorities and Mountain Areas (CEMMA). As a percentage of total government spending funds for health services decreased from 5 % in 1994 to 3 % in 2002, whereas spending for education increased from 7.8% to 10.4% and other social expenditures remained relatively constant at around 30% (Worldbank 2003).

The status of education and health constitute the main part of the human capital of the poor. As it could be seen in the poverty profile in chapter 2.2 above the level of education of the household head had a significant influence on poverty. Since the beginning of *doi moi* the legal framework for educational activities has changed. The public education system introduced fees for students in 1989, although in principle no school fees are charged for primary education. Of particular importance was the Law of Universal Primary Education and the Law on the Protection and Care of Children, both passed in 1991. The country has moved away from providing fully subsidized social services toward a greater role for non-public

schools. Basic education consists of five grades of primary education and four grades of secondary education. Then come either three years of upper secondary education or some time of vocational or technical training. Higher education can range from three to six years. The public school system exhibits some kind of horizontal decentralisation. This makes the future funding of the education system depend on the further development of institutional reform in the state sector.

Economic transformation in Vietnam also brought dramatic changes to the health sector where public responsibility was reduced. There have been signs of a declining health status of the poor relative to the rich due to a much more limited use of health services. The Government Decision 139 on provincial Health Care Funds for the Poor (HCFP) taken in 2002 was meant to change this pattern on the provincial level (Worldbank 2003). With the support of provincial governments the HCFP are obliged either to buy health insurance cards for the poor or to pay directly for services supplied by hospitals or other public providers. This new initiative is again a sign of a growing responsibility of local governmental agencies for future pro-poor spending.

The growth and poverty effects of Vietnam's Public Investment Programme (PIP) between 1996 and 2000 (summing up to more than 200 large-scale investment projects with a value of more than 300,000 billion VND.) have only recently been studied by Larsen et al. (2004). Given the rising state investment ration in Vietnam after the Asian Crisis together with the reduced annual growth rate a purely macroeconomic analysis would find clear signs of an increasing incremental capital-output ratio. A microeconomic perspective on the level of provinces is able to stress the externalities and network effects that are related to large infrastructure investments. It is estimated that spending an additional one percent of GDP in public investment has been associated with a proportionate reduction in poverty in the order of 0.5%. The study also highlights the high regional imbalances. While more public investment went to the richer provinces the poverty effects of PIP had been much higher in the poorer provinces (between two and three times). Hence a reallocation of public investment to the poorer provinces could improve general poverty.

Despite the provision of special funds for areas with high share of ethnic minorities, the poverty rate among most ethnic minorities remains high or is even growing. Standard growth strategies seem to miss out the particular needs of these groups that belong to the very poor in Vietnam. Special funds that CEMMA channels to "minority areas" quite often do not reach the minorities but rather Kinh majority households living in that area. As Van de Walle and Gunewardena (2001) found out, poor ethnic minorities and the Kinh majority work with fundamentally different models of income generation. If these differences are not taken into account by very specific interventions the effectiveness of the special programs will remain weak. This is particularly true for the North West where the rates of pro-poor growth have even been negative during the second sub-period of measurement.

The National Hunger Eradication and Poverty Reduction Program (HEPR) was officially implemented in 1998 coordinating and integrating various other public initiatives on central level that had already originated much earlier. Some of the programs are targeted to poor households directly, other are targeted to poor communes. Examples of the first kind are the provision of "poor household certificates" and of "health insurance cards" that both give entitlement to free medical treatment in public hospitals. Other programs within HEPR provide partial or full exemption to school fees or access to subsidized loans from the Bank of the Poor which has in the meantime been renamed Social Policy Bank. In 2001 HEPR merged with the Employment Creation Program to become HEPR-JC. In particular, the education fee exemption program within HEPR has a high coverage rate. It reaches almost one seventh of all poor and a fifth of the food-poor (Worldbank 2003, p. 87) and it has a statistically significant effect on school enrollment among the children of the beneficiaries. The selection

of the poor households happens in a very decentralized way by commune representatives and village chiefs leading to a high degree of participation and social control.

Program 135 was also created in 1998. It is a national socio-economic development program to technically and financially assist poor communes, especially in remote and mountainous areas. Its resources have been used for irrigation, schools, construction of commune centers etc. It is thus of particular relevance to the implementation of decentralisation programs and for public investment programs in rural areas. It consists of grants that finance small-scale infrastructure investments in poor and remote communes. It is funded on an annual basis with resources transferred directly to the communes and districts. Problems with participation and control have led to cases of misuse. Funds were positively correlated to the wealth of the regions and most funds went into agricultural production. Only a tiny fraction went into non-farm activities.

In an analysis of the static and dynamic incidence of pro-poor spending in Vietnam, Van de Walle (2004) comes to very sceptical conclusion, though. Given that available funds at the local level mainly depend on the relative development level social transfers will not contribute actively to a catching-up of the poorer areas. More is spent relatively and absolutely on the poor in the better-off communes. At the same time, the existing system of social transfers is ineffective in protecting households that are vulnerable to falling living standards. A higher efficiency of social transfers in reducing poverty would require not only a better monitoring at the local level but also a higher level of risk-pooling at the national level and redistribution via the central state budget. Also in this area the future of pro-poor spending in Vietnam will thus extremely depend on future institutional changes in the state sector.

3.5 Macro policies

A major challenge during Vietnam's earlier reform efforts was to ensure macroeconomic stability. Throughout large parts of the 80s the economy suffered from high inflation in the range of 100% to 200%, at times from hyperinflation. Ironically the inflation problem was in part a result of the reform measures themselves. Microeconomic reforms in the SOE sector and in the price system diminished distortions on the market and led to higher overall economic growth but they also weakened the base for macroeconomic management of the economy. Vietnam developed into a 'mixed economy' with strong socialist planning elements but with a government removed from direct control over resource allocation and manipulation of prices and incomes. At the same time the triangular relationship between the state budget, the central bank and the SOE sector remained largely untouched. With market forces gaining more influence, Vietnam experienced an upward pressure on prices and consequently a struggle of wage earners for higher salaries. As a result both prices and wages spiralled upwards and accelerated inflation and increased state deficits. By 1986 the inflation rate had arrived at a level of more than 700% (Hung 1999).

The necessity to link micro reforms to comprehensive macro reforms was finally acknowledged in the comprehensive stabilization program of 1989. The reform program included almost complete price liberalization, a devaluation of the Dong, a reduction of subsidies to SOEs, harder budget constraints, a restructuring of the tax base and administration and an encouragement of the private sector. The package showed immediate results, with the inflation rate dropping to some 35% and the growth rate climbing up to 8% in the same year. Inflation rates had their ups and downs throughout the 90s but never again attained the high levels of the 80s. Towards the end of the 90s inflation has more or less ceased to be a problem.

Vietnam's control of inflation was not directly addressing the fate of most poor. The "super pro-poor"-effects in curbing inflation, discussed by Dollar and Kraay (2000) and

Ghura (2002), were only partly relevant in the context of Vietnam. Declining inflation benefits the wage earning population in a double way: through the direct increase of purchasing power as well as through the economic growth channel. Adversely, high inflation rates do not only slow down or retard economic growth but also have damaging effects on the purchasing power of wage earning groups. Vietnam's majority of poor during high inflation periods did not receive income from wage employment. Less than 20% of the population was engaged in wage labour, with the majority of more than 60% working in the agricultural sector and often not relying on markets at all. Yet farm families experienced an improvement of their net income from lower inflation rates since the rice produced in the agricultural sector was redistributed to secure food security in the country. During high inflation periods compulsory deliveries rose to a level of 80% of output (compared to only 50% to 60% before) (Doanh 2002). Moreover, as macroeconomic stability returned the volatility of rice prices decreased to one fifth of the high inflation period. (Goletti and Minot 2000) Finally, as the *doi moi* reform process spurred a shift away from farming and towards more wage employment the control over inflation not only laid the foundation for sustainable economic growth but also effected larger parts of the working population, if not the poorest of them.

Since the seminal macro reforms of 1989 Vietnam has undertaken serious efforts to cut the strong economic and political link between the state run financial sector and state-owned enterprises by introducing more market dynamics into both sectors and thus create a better macroeconomic setting. Financial sector reforms proceeded in two phases. The first phase was marked by the end of the monobanking system and the establishment of a two-tier banking system in which the State Bank of Vietnam (SBV) took over the function of a central bank and four state-owned commercial banks (SOCBs) were created. In addition, a multitude of joint stock banks and a few foreign bank branches have been allowed to operate. The second phase, which started after the Asian crises and is still lasting, is marked by the adoption of the new Banking Law in 1998 (allowing further independence for the SBV and deregulation of interest rates) and an ongoing capitalisation of SOCBs (Kovsted et al. 2003, Klump and Spitzenpfeil 1998).

Likewise, state-owned enterprises (SOEs) have been exposed to greater market forces. Most important, the number of SOEs dropped from 12000 in 1991 to some 6000 in mid 1994 as a result of mergers or liquidation. The most preferred reform type today is equitisation, which assigns ownership to company managers and employees. However, the equitisation has thus far focused on the smallest SOEs, leaving untouched the huge capital-intensive state monopolies. The average capitalization of equitised firms was VND 6 billion, compared to VND 1,700 billion for centrally administrated SOEs, a factor 280 difference (Klump 2003).

Trade liberalization and the 'opening up' of the economy has been a cornerstone in the export-led growth process. Vietnam has become a member of ASEAN, AFTA and APEC, signed various bilateral trade agreements and is currently negotiating accession to WTO. The implications of this deeper integration into world markets are far-reaching, comprising an alignment between international and domestic prices, the lifting of export quotas, cutting subsidies, allowing more market access to both foreign investors and foreign providers, reducing trade taxes etc. (Schmidt 2003, Tarp and Roland-Holst 2002). Most of these policy measures have already been heralded and a speeding-up can be expected from the likely accession to WTO in 2005. Table 3.2 demonstrates how the export-led growth contributed to growth and poverty reduction in Vietnam. The factor content of export has dramatically changed over the *doi moi* period, with a steady increase in those goods that make the best use of Vietnam's unskilled labour potential and its relatively well developed human capital.

Table 3.5: Factor content of manufactured exports in Vietnam 1981-1998

SHARE IN TOTAL MANUFACTURED EXPORTS (IN %)	1981-1985	1986-1990	1991-1995	1996-1998
Agricultural intensive goods	83.9	80.6	38.6	21.0
Mineral resource intensive goods	2.4	1.2	4.3	2.1
Unskilled labour intensive goods	10.2	14.2	49.7	58.7
Technology intensive goods	2.4	1.5	1.9	5.6
Human capital intensive goods	1.1	2.5	5.6	12.7

Source: Jenkins (2003)

Beside its aggregate growth effects trade liberalization in Vietnam had also specific effects on the regional distribution of income. In a study on provincial converge in Vietnam 1995-2000 Bonschab and Klump find that openness to trade is a statistically significant and positive determinant of growth in the poorer provinces. The higher degree of commercialisation of agricultural production (WB 2003, p.41), the gains to specialisation in labour-intensive non-farm industries and the higher returns to education that can be found in the more open provinces (WB 2003) have contributed to the particular pro-poor effects.

3.6. Institutional changes

The restructuring of the relation between central government units and local authorities has been a key element in Vietnam's public sector reform throughout the 90s. Decentralisation is Vietnam's most important strategy to overcome bureaucratic barriers and over-centralisation in a country with highly diverse natural, economic and ethnic conditions. Reforms have been officially endorsed by the Eighth Plenum of the Central Committee. The Eighth Plenum of the Central Committee has officially endorsed reforms in 1995 (Vasavakul 2002). The objective behind the public administration reform (PAR) program is to transfer to local authorities more fiscal and political responsibilities so as to facilitate a local implementation of the ambitious targets of Vietnam's poverty reduction programs strategy like the HEPR-Program. This 'rolling out of the CPRGS to the provinces' is hoped to be achieved by means of reducing government bureaucracy, simplifying administrative procedures and encouraging civil society engagement.

Arguably, decentralizing power and strengthening the ownership of the locally poor is an integral part of any pro-poor growth strategy. Participation in decentralized planning allows the population to mould the decisions that are of direct concern to their livelihood. Ideally this goes along with a better utilization of their knowledge about local conditions and the specific needs of the poor. This may turn out particularly relevant in cases where – as with ethnic minorities – the poor differ in economic behaviour and life-style from those who typically work in central governments in a far-away city (Van de Walle and Gunewardana 2001). A decentralized implementation of national poverty alleviating strategies may help to improve the targeting of policy measures and thus make them less costly.

However, there are also more sceptical voices about the role of decentralization in poverty reducing strategies. With regard to Vietnam concern is often raised about the additional cost of such decentralized planning. It seems unclear whether the targeted groups actually have the capacity to manage their own programs, whether public budgets are flexible

enough and government officials are really willing to hand over power to lower levels. If all these doubts were in place local units would simply be swamped with the burden of decision making and the much discussed issue of decentralisation would appear like a donor's choice rather than a prudent public policy strategy. In fact the quest for decentralization would work to the disadvantage of the poor rather than to their benefits.

With these potentially beneficial and evil impacts on poverty in mind it is important to look at the current state of decentralization in Vietnam and assess its impact on poverty. Existing literature on this topic often distinguishes between fiscal, administrative and political aspects of decentralization (Manor 1999, Fritzen 2002, Fforde 2003). Fiscal decentralization deals with the reorganization of fiscal responsibilities and allows sub-national levels to raise and/or share an increasing amount of state budget while administrative decentralization deals with the transfer of responsibilities to lower administrative levels. Political decentralization refers to the granting of autonomous decision making authority to legally constituted local governments like People's Councils.

Fiscal decentralization is already comparatively advanced in Vietnam. With roughly 40% of all government expenditure and about 55% of expenditures in the social sector, the share of the economy controlled by the central government is not exceptionally high and in line with other rather decentralized countries like the US (39%) and India (52%) (Fritzen 2002, p. 4). Two major laws have recently moulded the course of fiscal decentralization in Vietnam: the 1996 Budget Law (amended in 1998) and the 2002 Budget Law, which is to be applied for 2004-2005. The 1996 Budget Law subdivides into separate components for central government and line ministries, provinces and major cities, districts and towns and a budget law for communes. The law grants more fiscal autonomy to provincial governments and more stability in transfers from the central governments. The new 2002 Budget Law further extends provincial autonomy by (1) increasing the authority and jurisdiction of the National Assembly and People's Councils (2) allowing provinces a greater say in the allocation of budgets to districts and communes (3) providing local governments incentives for balanced household budgets (4) granting more discretionary power to local government units and (5) calling for the local implementation of PAR (Fforde 2003).

Higher budget shares due to fiscal decentralization do not necessarily lead to more discretionary power and control for local levels. In fact, the comparatively slow pace of *administrative* decentralization has prevented many communes from significantly gaining greater independence. Inflexible budgetary norms and a decentralization stopping short at provincial level rather than extending to the communal level gives poor villages little scope for administrative self-help (World Bank 2000, Fritzen 2002). Most national programs for poverty alleviation are managed by the provinces and allow for little participation of at the grassroots level. A public administration reform master plan for the years 2001 to 2010 provides a framework for facilitating further administrative decentralization.

With regard to *political* decentralization, an Ordinance of 1996 states that People's Committees at all levels are responsible for formulating policy details and organizing policy implementation. Also, in response to some large-scale demonstrations against local official corruption in Thai Binh province the government issued a grassroots democracy decree (Decree 29) in Mai 1998. Several mandates grant local governments to take necessary steps to guarantee procedural democracy and that investments, taxes and labour contributions are implemented equitably and transparently (Fritzen 2002, Vasavakul 2002).

A few general comments about the current state of decentralization in Vietnam are in place. First, the coordination of the fiscal, administrative and political dimensions of decentralization does not seem to be a high priority in the overall planning of the decentralization process. There is no clear vision on how to carry through decentralization in a concerted way, expressed for example in a legal document that would serve all dimensions as a framework for further reforms (Fritzen 2002, Fforde 2003). Second, there is almost

unanimous complaint about widespread bureaucratic resistance to transferring decision making authority and resources to lower and lowest levels (Vasavakul 2002, Fritzen 2002, Fforde 2003). Most national poverty alleviating programs, like the 135 program to assist the poorest communes or HEPR, are implemented in a rather top-down manner. The arguments from government, provincial and district officials resisting to hand over discretionary power to the village level range from the complaint that local people would deviate from agreed plans to the pointer that lack of education and required skills to manage decentralized funds is common at communal level. There are probably also some selfish interests involved in such statements as line ministries at each level prefer a strong command-and-control orientation in order to control revenues via state-owned enterprises (Fritzen 2002). Attitudes might be changing in this regard but there is some tension between the official government position to promote decentralization and the statements of many relevant government units that communes are incapable of managing their own poverty reduction funds. However, one should not expect decentralised budget planning to work equally efficiently in all provinces and communes without prior training programs. The lack of knowledge in handling budget issues calls for capacity building rather than essential scepticism. Third, the increasing regional imbalance resulting from Vietnam's economic growth threatens to make decentralization a reform program that works highly selective in favour of better-off areas. Wealthier areas have been more effective in targeting their poor than poorer areas, spending more in relative and absolute terms to their poor (van de Walle 2002). Some poor localities, especially in high mountainous provinces like the Northern Uplands and the Central Highlands, have difficulty in providing basic standards in education and health due to both lack of independent opportunities to raise money and limited capacities to make use of the opportunities made available through decentralized managing of national poverty reducing programs. Finally, there is a problem with insufficient female representation in the political bodies on at the various levels. As Table 3.6 shows women are more represented on the central than on the local level of political decision making. Faster political decentralisation without increasing female representation on the lower levels would therefore increase the political gender bias.

Table 3.6: Political representation of women in Vietnam 1994-1999

POLITICAL BODY	AVERAGE SHARE OF FEMALE REPRESENTATIVES (IN %)
National assembly	26.2
Provincial People's Council	20.4
District People's Council	18.1
Commune People's Council	14.4

Source: Centre for International Economics (2002)

Selective experiences suggest that decentralization turns strongly pro-poor once administrative barriers are removed and capacity building at commune level is supported. Examples are the UNCDFP initiated Rural Infrastructure Development Fund (RIDEF) in Quang Nam and Da Nang provinces and the GTZ supported participatory Village Development Planning (VDP) in Son La province. Both experiences suggest that decentralized participatory planning improves the services to the poor and is economically more efficient than standard top-down planning. Surely, since systematically collected data are lacking the improvements are not easy to gauge but a rough calculation for which the Son La experience gives a hint. According to Kirchmann (2003) the average VDP costs per village for capacity building, monitoring etc account for only 1 percent% of the total budget available

through national target programs like program 135 and international projects. The share is higher in the initial phase but goes down significantly once full coverage of villages is reached. These costs pay off though. Kirchmann points to evidence that construction costs for communal halls or road improvements go down by more than 50%, compared to usual centrally planned calculation. Taking also account of positive side-effects of participatory planning, like problem solving capacities, self-organization and so on, the Son La experience suggest that decentralization has the potential not only to improve the quality of services delivered to the poor but also to improve the efficiency of pro-poor spending and to enhance economic growth.

Chapter 4: Trade offs between growth and pro-poor growth

4.1 Further trade liberalization

There is no question that Vietnam's future growth record will crucially depend on further external liberalization and deeper integration into world markets. This is exactly the reason why the country has applied for WTO membership and is currently negotiating about the necessary structural adjustment for an accession in 2005. However, it has been questioned whether the productivity-enhancing and growth-stimulating effects of further trade liberalization will also automatically contribute to a further reduction in poverty, at least in the short and medium run. While both export- and import-liberalization measures may have a negative impact on poverty via a reduction in foreign-trade taxes that leads to less pro-poor spending, import-liberalization could become a particular problem for import-competing domestic industries. This possible trade-off has been studied extensively, in particular in two consecutive papers by Roland-Holst et al (2002) and Jensen and Tarp (2003). Both studies have applied simulation techniques in order to understand the links between world market integration, growth and poverty. Based on the 1997/98 VLSS as well as on the CIEM social accounting matrix (SAM) and using a multi-sector dynamic general equilibrium model the simulations try to isolate the effects of specific shocks and specific policy measures. Methodological details of this approach are described in the appendix.

The first study by Roland-Holst et al (2002) assesses the long-term economic growth effects of Vietnam's deeper integration into world markets. The paper discusses five scenarios for Vietnam's future trade policy and their possible economic performances in the years 2000 to 2020. The first scenario – "business as usual" – serves as a baseline and assumes that Vietnam simply running forward without major additional reforms and without WTO accession can realize an annual growth of real GDP between 2 and 4 %.. The second scenario assumes WTO membership but no major domestic reforms. Interestingly, in this scenario economic performance over the projected period is not fundamentally better than in the first scenario. The authors conclude that extended market participation through trade liberalisation and WTO membership without at the same time committing to reforms in infrastructure, education and market institutions, will accrue most benefits to the trading partners. Under these circumstances Vietnam lacks the strength to become an equal partner in a trading-based economic development. However, the authors project a significantly better economic performance when they give up their restrictive assumptions on Vietnam's development in the subsequent scenarios. The full benefits of trade accrue when Vietnam is embedded in various parallel bilateral, regional and other trade agreements and allows for extensive capital market liberalisation and FDI. In this 'win-win-scenario' the dynamics of sector outputs would shift from agricultural goods to more diversity and larger shares of more capital intensive products like manufacturing goods and food-processing goods. In this last scenario the simulations indicate that the growth dividend could be about 500% higher than in the "business as usual" scenario.

In a follow-up study, Tarp Jensen and Tarp (2003) address the issue of how reduced trade taxes, following from deeper world market integration, affect poverty across different household groups (see table 4.1). In all three scenarios the aggregate growth impact ranges below 0.1 % of real GDP in 2000. The authors assume a revenue-neutral public finance closure, meaning that the government makes up for losses of revenue from trade taxes by increasing household tax rates, thus avoiding increasing budgetary gaps. Proceeding from this assumption their simulations suggest that an elimination of all trade taxes would push an additional 320.000 people, i.e. 1.3% of the population into poverty. Different household groups would be affected in a different way. Rural areas in the northern and central regions are more affected than urban areas. Rural inhabitants suffer disproportionately from the elimination of import tariffs, while the elimination of export taxes has only minor effects.

Turning to the employment status of the head of the household, farming households tend to be hit harder than households with wage-earning and self-employed heads. The simulation identifies 205,000 individuals out of the projected 350,000 as belonging to farm households.

Taken together the two studies suggest that although there are substantial growth benefits from advancing reforms and allowing for further trade liberalisation and deeper integration into world markets, these benefits have to be balanced against the poverty impact of the government's new taxing policy required after import taxes and export taxes have been reduced or eliminated. The simulations suggest that the rural population, and especially the rural farm households in the northern region, are adversely affected under the assumption of revenue-neutral government budget closure. The findings stress the need to consider alternatives to household taxation – like enterprise taxation or the cutting of subsidies – and to accompany trade liberalisation with structural policies, such as a further restructuring of inefficient SOEs and targeted pro-poor spending. High growth would probably ease the financing of these additional policies.

Table 4.1: Poverty effects of (revenue-neutral) trade liberalization

AREA	NUMBER OF POOR UNDER BASE RUN ASSUMPTIONS (IN MILL)	CHANGE IN NUMBER OF POOR UNDER ALTERNATIVE STRATEGIES OF TRADE LIBERALIZATION (IN %)			INCREASE IN NUMBER OF POOR UNDER STRATEGY 3 (IN MILL)
		STRATEGY 1: ELIMINATION OF ALL EXPORT TAXES	STRATEGY 2: ELIMINATION OF ALL IMPORT TAXES	STRATEGY 3: ELIMINATION OF ALL EXPORT AND IMPORT TAXES	
Total country	24.3	+ 0.2	+ 1,3	+ 1.3	+ 0.315
North	9.7	+ 0.4	+ 2.4	+ 2.0	+ 0.194
Central	8.4	+ 0.2	+ 0.8	+ 1.0	+ 0.084
South	6.2	- 0.2	+ 0.4	+ 0.4	+ 0.024

Source: Elaborated from Tarp Jensen and Tarp (2003)

4.2 Regionally unbalanced growth

A second trade-off in Vietnam's growth process emerges from the existing and growing regional imbalances. As we have documented above, South East, Red River Delta and to a much more less extent South Central Coast have been the dynamic growth centres in Vietnam that attracted most of foreign and domestic investment. Vietnam's prospects to catch up with the richer world and to modernize the economy seems to hinge on the development within these growth poles, as they have become the centres of innovation and attract the better educated labour force. As a matter of fact, policies in favour of less developed regions will be increasingly difficult to justify on grounds of pure growth objectives.

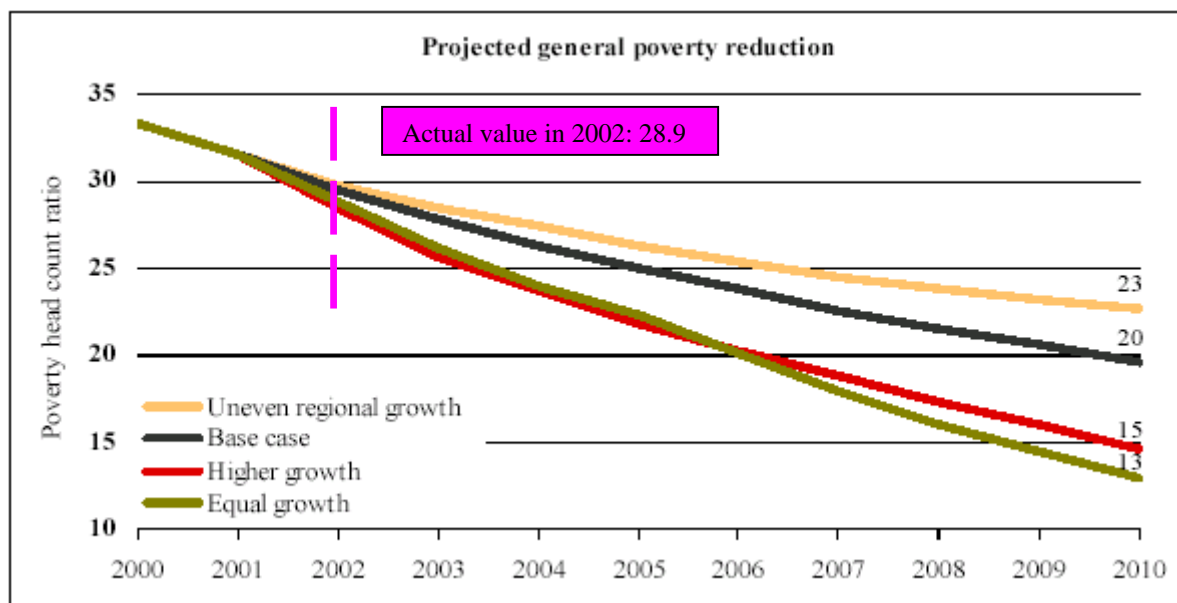
On the other hand, with most of the poor still living outside the growth centres the pro-poorness of growth rather calls for a more even distribution of growth. In their very detailed study of the spatial dimensions of poverty in Vietnam, Minot et al. (2003) find out that 96% of the variation in district level poverty rates can be explained by differences in district-level average per capita expenditure. Hence poverty reduction in the poor areas can best be achieved by supporting broad based economic growth in all regions of the country.

Arguably the emergence of dynamic growth poles can be interpreted as a natural phenomenon of economic development which fits in with the standard “Core-Periphery-Model” of the new economic geography (Krugman 1991). Indeed the poles are marked by lower transportation costs, better internal financial transfers and economies of scale, all of which facilitate the emergence of creative milieus, networks and knowledge spillovers. The poles have the comparative advantages of a better availability of factors of production and a more extended division of labour force with deeper specialization. They have also become the gateway to the global markets. One may argue that the well-functioning of the growth poles is also in the best interests of the peripheral regions for two reasons. First, growth in the core might positively effect growth in the periphery during the next period via a spread of knowledge, capital and income. In particular, migration to the core that is combined with remittances to family members in the periphery can be a very powerful instrument of bridging the growing income gap. If the welfare effects in the periphery are as strong as in the core, overall inequality between the regions would not rise continuously. Second, growth in the core produces the welfare that finances potential redistributive measures in favour of the periphery.

Against this view of the relation between economic growth centres and peripheral regions, various observations are in place with regard to the specific development in Vietnam. First, as has been argued throughout this paper, inequality among Vietnamese regions and provinces is rising. There is no general tendency for peripheral parts of the economy to benefit from spreading growth in poles strongly enough to uphold the status quo in development differentials. Neither is there a tendency – acclaimed by neoclassical convergence theory – for poorer provinces to catch up automatically and quickly with richer provinces and regions (Bonschab and Klump 2003). Second, the growth poles themselves do not simply enjoy their developmental advantage without paying a price. The problems of dealing with the social and economic challenges created by increasing numbers of migrants have already been discussed in chapter 3.3. Moreover, strong economic growth in the poles has caused significant environmental degradation. For example, fast growing cities with insufficient infrastructure suffer from air pollution, hazardous waste, poor sanitation producing polluted waste water etc. Third, fiscal redistribution from the rich to the poor regions is only possible within very limited margins. This is why a pro-poor growth orientation would rather call for a development strategy that aims at a regionally more evenly distributed growth in Vietnam.

The different effects of high, but unevenly distributed growth and more evenly distributed growth on overall poverty reduction have been documented in the poverty projections by Agarwal and Beard (2001), on the basis of data from the VLSS 1997/98. The results under different scenarios can be seen in figure 4.2.1. Under the base case scenario which assumes a average overall growth rate of 5% real GDP growth, a growth elasticity of poverty as high as 1.3% and a constant regional distribution of poverty, the national poverty can be reduced to 20% by 2010 as it has been planned in Vietnam’s CPRGS. A higher overall growth rate of 7% with constant regional imbalances would naturally result in a lower national poverty rate of only 15% by the same year. A more uneven distribution of regional growth, with the two most prosperous regions (South East and Red River Delta) growing at an average of 5%, while South Central Coast (with the third growth pole) grows at half that rate and the remaining other regions grow only at an average of 1% would of course lead to higher poverty imbalances and a reduction of the national poverty rate to only 23% by 2010. The best results in these poverty projections are achieved, however, by a strategy of equally distributed growth. If a uniform growth rate of 5% could be realized over the whole (urban and rural) population of each region, so that the rate of pro-poor growth for all percentiles would be equal to the mean growth rate, the national poverty rate could be lowered to 13% by 2010.

Figure 4.2: Poverty projections 2000-2010



Source: Centre for International Development (2002) on the basis of data from Agarwal and Beard (2001)

Today we are able to identify which on path of poverty reduction Vietnam has moved since 2000. As we have explained in chapter 2.1, regional imbalances in growth have increased until 2002, with North West, North Central Coast and Central Highlands increasing their share in total poverty. Average GDP growth over the period 1998-2003 has been more than 6.5% (CIEM 2004) and hence much closer to the high growth path than to the base case. On the other hand the growth elasticity of poverty has dropped in Vietnam after 1998. On the basis of an elasticity value of 1.2% the Worldbank (2003) has calculated that the two effects together would slightly increase the 2015 poverty rate under the high growth scenario of 7% annual growth to a value of 16 %. The same report (WB 2003, p. 58 f.) also develops a “forward looking scenario” of the high growth case, where ethnic minority households in rural areas have a much lower expenditure increase than the rest of the country. This leads to an estimated national poverty rate of 21% in 2010.

Given the uncertainty about continuous growth at such high rates as they were realized in Vietnam over the past 15 years and the high probability of a further fall in the growth elasticity of poverty the scenarios can only give a very rough idea of the possible trade-off. However, the projections are supportive of the view that more poverty reductions could be achieved with less growth if this growth is more evenly distributed over the Vietnamese population. This make it interesting to look at the ways of how existent distributional imbalances can be reduce in the most effective way.

4.3 Public spending for rural areas

A last trade-off can be found in the various types of public spending that can either improve the conditions for future growth, contribute to a fall in the poverty rate and in best case, can achieve both effects at the same time. Given the tight budgetary restriction all levels of the Vietnamese government will have to look for a prioritisation of public spending in the light of the overall development strategy. Pro-poor strategies might justify others priorities than a simple pro-growth strategy. Given that most poverty in Vietnam is still related to agricultural production in rural areas Fan et. al. (2003) have investigated in a recent study

possible returns of various forms of public spending on agricultural growth and poverty reduction. The investigation is based on a cross-section of provincial data for the year 2000 coming from MOF, MARD and CIEM sources. A simultaneous three equation-model is developed that explains agricultural production, non-farm employment and rural poverty. Public expenditures on agricultural research, irrigation, road building, education and on the provision of electricity and telephone are modelled as potential input factors to at least one of the production sectors. The results of the estimations are summarized in Table 4.3.

Table 4.3: Growth and poverty effects of public spending in rural areas of Vietnam

	AGRICUL- TURAL R&D	IRRI- GATION	ROADS	ELEC- TRICITY	TELE- COMMU- NICATION	EDU- CATION
Returns in agricultural production (VDN of output per VDN spending)	11.00	0.76	3.50	2.49	6.73	5.34
Poverty reduction (Number of poor per Billion VDN)	- 246.52	- 23.29	- 102.52	- 90.71	- 207.38	- 164.60

Source: Fan et al. (2003)

The figures reveal that government investment in agricultural research has the largest poverty reducing effect, followed by investment in telecommunication and education, roads and electricity. Surprisingly, irrigation investment has the smallest impact on rural poverty. Interestingly, the ranking in poverty reduction is exactly the same as for the returns to agricultural growth. There seems to be no trade-off in the selection of government investment priorities. Public spending for agricultural R&D accounted in Vietnam for only 1.7% of total public agricultural expenditure over the 1990s, whereas comparable figure for Thailand and China were 10% and 6% respectively. Increasing these funds would not only have a positive direct effect on agricultural production but also increase non-farm employment via higher agricultural productivity.

The somehow weak results for higher public investment in education are surprising. They are, however, modified if the whole country effects are disaggregated to the level of the different regions. Then the returns to education and also the poverty reduction effects are highly correlated with the level of regional development leading to the highest returns (12.10) and the largest reduction (-253.46) in the high-developed South East, to the lowest returns to education in the very poor Northern Uplands (2.46) and to the least poverty reduction in the Mekong River Delta (-82.39). The cross-section results only support the view that the importance of public investment in education for both growth enhancement and poverty reduction increases with the level of development which usually goes hand in hand with a lower sectoral share of agricultural production.

Chapter 5. Policy conclusions

5.1 Investing in human capital formation

With the decision to continue on the path of economic transformation and deeper world market integration Vietnam has implicitly committed itself to far-reaching structural reforms. Further legal, political and economic alignment with international standards has already been part of the assignment of trade agreements with global business partners in recent years, but there are still more radical changes ahead with the likely accession to the World Trade Organisation (WTO) in 2005. WTO membership demands decisive market-oriented reforms in virtually all sectors of the economy

It has been argued throughout this paper that growing regional inequalities have been a major obstacle for an unequivocal pro-poor growth in Vietnam. This danger for pro-poor growth is even more relevant for future economic development under the conditions of WTO membership. Further integration of Vietnam into world markets via trade and FDI will continue and will provide further opportunities for growth. However, the rapid liberalization strategy also bears the risk of hurting, at least in the short run, the living-standards of the poor, either directly or via the reduction in foreign trade taxes that can no longer be used for the financing of social policy programs. On the other hand, it is exactly the pressure from outside competitors that is needed for a completion of the reform of the costly SOE sector. Against the efficiency gains of liberalized external trade also the employment losses in the declining state sector have to be weighted that have to be absorbed ideally by a further expanding domestic private sector. This explains why the further development of the domestic private sector is of a strategically high importance not only for further growth but also for future poverty reduction in Vietnam.

In the aggregate the increase in income and the reduction of poverty has been accompanied by an increase in human capital indicators, measured as the level of education and health. However, the impressive gains of *doi moi* were not shared equally. The increase in income and human capital of the rich has been higher than that of the poor. The growing gap in human capital creates a burden for a future pro-poor orientation of growth in Vietnam. Income inequality can be corrected much more easily than human capital inequality that, which is the basis for future growth. Since future growth in Vietnam will have to become more human capital intensive – as it has been the case with all Asian tigers – the unequal growing inequality in human capital not only sets limits to future reductions of poverty but also to a continuation of rapid growth. We Rapid economic growth may contribute to a further increase of the human-capital gap when higher wages increase the opportunity costs of investing time in health and education. This is of special relevance for those poor working in the informal sector. Targeted measures to raise the human capital of the poor are thus both pro poor and pro growth.

The next phase of *doi moi* will challenge the traditional role of the state and demand additional skills from policy makers and civil servants.. The new role of the public administration will include a pro-growth component, where the state will guarantee and further develop the essential cornerstone of a sustainable market economy: workable internal and external competition as well as macroeconomic stability. In addition, the state has to take care of a pro-poor component. Targeted programs to increase the human capital of the poor via better health and education, to improve the infrastructure in remote areas and to deal with the special problems of ethnic minorities in an adequate way will have to become the cornerstones of future social policy. There are many other areas, however, where the state authorities will become more of a facilitator and coordinator of reforms rather than the sole implementor at all levels. Budget constraints will force the state to withdraw from traditional areas of intervention and will leave more room for private initiative or public-private-

partnership, as for example with further improvements of the road infrastructure. This new role of the state is ambitious in various regards. It has to rely on well-qualified bureaucrats who are not (or at least not so much) open for corruption and bad governance. It has to be based on better and up-dated information on the socio-economic situation of the poor in urban and remote rural areas than is available today. And it has to find ways of how to mobilize the necessary funds for pro-poor programs without creating too strong fiscal disincentives for the growth-enhancing sectors and individuals.

5.2 Supporting private sector development

The rapid growth of the domestic private sector is a key factor if Vietnam wants to stay on a pro-poor growth track in the next phase of *doi moi*. The private sector provides the most powerful source potential for further employment creation, not only in the growth poles but also in the poorer regions and provinces, which have thus far been the lesser beneficiaries of Vietnam's extraordinary growth performance. Hence growth in the private sector potentially contributes to a more regionally balanced overall growth process and works against the increasing gap between rural and urban income opportunities. New employment opportunities in small and medium enterprises would also be a potentially strong stopper to the ever larger flow of migration into large cities, where new facets of poverty have developed. Small and medium enterprises could create employment exactly where most of the poor live. Moreover, they would create employment opportunities outside the agricultural sector thus contributing to a diversification of income risk in urban areas. With the enforcement of the new Enterprise Law in 2000 a crucial step towards more private sector growth has been undertaken. Since then the number of average yearly firm registration has nearly tripled, and already a small shift in the employment structure can be observed. However, compared to other transition countries such growth rates are still rather small and firm registration is geographically still too much concentrated in urban areas. The current development thus calls for stronger political efforts to encourage more private sector growth especially in the rural areas.

The private sector is still young and vulnerable, facing discrimination by local authorities as well as by SOCBs and SOEs. It is currently one of the most promising developments in Vietnam that a unified Enterprise Law and a unified Investment Law are in preparation. Both laws are intended to fundamentally improve the business environment for the private sector. Developing a reform package which effectively ignites private sector growth especially in the rural areas that effectively ignites private sector growth especially in the rural areas requires to address a multitude of issues with far-ranging implications for other sectors of society. First of all the Enterprise Law needs a more thorough implementation. Local officials are often reported to deviate from the spirit of the Enterprise Law and set their own conditions which impede the emergence of new enterprises or restrict the activities of those already on the market. The prospects of subverting such practices and improving good government at local levels are closely linked to the fate of decentralisation programs. If decentralisation achieves to truly allow for participation of those affected, then, one may speculate, chances are good that private sector growth at local levels might also be fuelled. Another fundamental barrier to more private sector growth is the very restricted access to capital for most small enterprises, especially in the rural areas again.

5.3 Dealing with internal migration

Migration has played a major part in improving the living conditions of the poor in Vietnam, either directly by making poor individuals find higher income in urban areas, or indirectly by the remittances from migrants to their families. Given the increasing interregional income gaps one can foresee that internal migration will become even more important in the future so that economic policy should recognize the advantages as well as the

immanent problems. Problems are related in the first place to an insufficient safety network for migrants in their new working and living places. Given the high vulnerability of migrants, working often in the rather volatile informal sector of the economy, migration therefore contributes to the rise of a new face of urban poverty. Public infrastructure and the planning of urban development should take into account the potential future rural-urban migration. Public social safety networks have to recognise the need of migrants.

It is striking that despite the growing relevance of internal migration for future growth and the emergence of new poverty there is yet no coherent policy approach towards migration. Accordingly, policies trying to control migration patterns often appear somewhat mismatched. The places of destination are often badly prepared to offer sufficient infrastructure and social perspectives for migrants. Household registration requirements were introduced which are too demanding for many migrants to meet. This response to migration reveals an internal contradiction in Vietnam's reform process. On the one hand most barriers to migration were effectively removed during the reforms because there was and is a political will that labour forces should move to where economic opportunities are and thus contribute to growth and poverty alleviation. On the other hand the large flow of migrants obviously creates additional burden for the urban centres, so that new barriers are set up despite the fact that they are somewhat unfitting to the overall reform process.

The lack of a coherent strategy in dealing with migration dynamics is also expressed by the multitude of government bodies responsible for migration problems. To name only some key players: the Ministry of Agricultural and Rural Development (MARD) is responsible for the development of New Economic Zones and thus for a great deal of organized migration. However it is meanwhile also taking into consideration the flows of spontaneous migrants. The Ministry of Labour and Invalids (MOLISA) is responsible for employment and vocational training, and also for poverty alleviation in general. MPS (Ministry of Public Security) manages the household registration system, which does not include undocumented migrants. Last but not least, the Ministry of Construction (MOC) is responsible for rural and urban planning. All of these ministries deal with migrants' problems one way or the other. However there is no clear assignment of which ministry accounts for what problem, let alone a ministry which would address the migration issue as such. It would pay off to confer on one government body the main responsibility to advance strategies how to best deal with internal migration and match them with the overall pro-poor growth strategies of the country.

5.4 Mastering decentralisation

The process of decentralizing power and allowing local units more participation in planning has long been an essential part of Vietnam's reform policies. However, given this policy commitment it is once again surprising that there is no coherent strategy dealing with the issue. The fiscal, administrative and political dimensions of decentralisation have advanced more or less independently of each other. Whereas fiscal decentralisation and – to a lesser degree – political decentralisation are well under way, progress in administrative decentralisation is still very slow. As a result many decentralisation efforts stop short or fail due to administrative barriers, and hence the officially announced “rolling out CPRGS to the provinces” in fact proceeds at a slower pace than it could be. It would therefore be an important step to develop a strategy for a better coordination of the individual dimensions of decentralisation and lay this strategy down in a document or law that could serve as a roadmap for further reforms.

A comprehensive roadmap for further decentralisation would have to take into consideration the impact of decentralized planning on Vietnam's currently growing regional inequalities. In particular it would have to advance a strategy, which avoids that decentralisation contributes to the divergence of living standards among regions and

provinces. In general wealthier regions and provinces are better equipped and prepared to make use of improved opportunities for participatory planning. Prerequisites for a successful decentralisation of economic and political power vary significantly among Vietnam's provinces. Yet the exact mechanisms of economic growth and poverty reduction in each province are often a black box to policy makers. There is a pressing need to invest into more research about the local channels between investment, growth, policy measures and poverty effects. Such research may well be realized in cooperation between national organisations and international donors.

It is therefore remains important to run targeted support programs for the poorer segments of society. The widely expressed scepticism that the poor people, and especially ethnic minorities in the rural areas, are incapable of managing their own businesses should be thwarted. For instance, donor experience in Quam Nam, Da Nang and Son La strongly suggest that once local officials receive an initial assistance in gaining more knowledge of planning, management and finance, they are well able to accomplish projects at considerably lower costs than conventional top-down centralized managed projects. Operating on a committed program for capacity building at local levels decentralisation has thus the potential to become an essential tool for achieving pro-poor growth.

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Appendix 1: Concepts of poverty lines in Vietnam

POVERTY LINES (IN 1000 VND)	1993	1998	2002
GSO/World Bank Concept			
- General Poverty / National Poverty	1,160	1,790	1,916
- Food Poverty	750	1287	
MOLISA Concept			
- Hunger (Whole country)		540	
- Rural Poverty	434	750	1,080
- Urban Poverty	543	1,080	1,800
-			
Jamal/Jansen Concept			
- Rice only	369	518	
- Rice and sauce	488	703	
- General	748	1,135	

The most commonly used poverty lines in Vietnam are those estimated by General Statistical Office (GSO) and by the Ministry of Labour, Invalids and Social Affairs (MOLISA). GSO, assisted by the World Bank (WB 1999) provides a general (food and non-food) poverty line and a food-only poverty line. The food-only line is based on the food consumed per person per day in the third quintile of the population, which yields approximately 2100 calories. Quantities of each item in the food basket were calculated from the 1992/93 Vietnam Living Standard Survey and priced using regional and monthly price indices to give a food poverty line for 1993 of about 750,000 dong per person per day in January 1993 prices. The general poverty line incorporates non-food expenditures and is based in addition to food on average non-food expenditures of the third quintile, adjusted by regional and monthly prices, yielding a non-food expenditure of about 410,000 dong, and so a general poverty line for 1992/93 of 1,160 thousand dong in January 1993 prices. The 1993 basket was then re-valued using regional and monthly prices for those items to arrive at the 1998 food poverty line. The 1997/98 general poverty line is calculated by scaling up the 1993 non-food expenditure by the official consumer price index and then added to the 1998 food poverty line. In calculating poverty lines from the 2002 VHLSS expenditure data are converted into 1998 prices.

The poverty line by MOLISA is based on the monetary value of rice consumption. Households with an income value of less than the equivalent of 13 kg rice per month (equivalent to 1600 calories per day) are considered hungry; households with an income equivalent of 15 to 25 kg rice per month in rural and urban areas are considered poor. The resulting values are always lower than the food poverty line.

The importance of distinguishing between rice consumption and a more general diet was very clearly analysed by Jamul and Jensen (1998) who claimed that the consumption pattern of the third quintile cannot be representative of the consumption pattern of the poor. Their measure of a purely rice based poverty line is still lower than the MOLISA rural line, it increases to values similar to the MOLISA value, once the cheapest non-rice item ("sauce") is also included and it comes close to the values of the food poverty line, once other items are included that belong to the consumption basket of the poor.

Appendix 2: Poverty profile of Vietnam

The Vietnamese poverty profile is constructed by using the povdeco STATA ado file which estimates three poverty indices from the FGT class, plus related statistics (such as mean income amongst the poor). Interestingly, options are also allowed for decompositions of these indices by population subgroup, which are very useful for making a poverty profile. Using these decompositions, the poverty profile is generated in the following sub-groups.

- (i) urban-rural dimension, using urban and rural classification given in the VLSSs and VHLSS;
- (ii) sex of the head of the household;
- (iii) household size: large (≥ 6 members); medium (3-6 members); and small (≤ 3 members);
- (iv) number of children: group 1 (number of children ≤ 2); group 2 (number of children 2-5); and group 3 (number of children ≥ 5);
- (v) Age group of the head of household: young (age ≤ 30); middle (age 30-60); and old (age ≥ 60);
- (vi) Regional dimension, using 7 region classification (region 1: Northern Uplands; region 2: Red River Delta; region 3: North Central; region 4: Central Coast; region 5: Central Highlands; region 6: South East; region 7: Mekong River Delta;
- (vii) Ethnic minorities groups are classified into Vietnamese (Kinh); Chinese; and others. For the earlier VLSSs, due to the relatively small sizes of the samples, breaking ethnic groups into further different ethnic minorities are not very reliable. For VHLSS 2002, the information on ethnic minorities is supposed to be available as “ch_dantoc” variable in File_H. However, in this File_H, the variable that indicates provinces is missing. It is thus not possible to merge this File_H with other files for getting information on ethnic minorities. The results for the 2002 ethnic dimension therefore rely on information from WB (2003);
- (viii) Occupation of the head of household in the VLSSs is classified into (i) white collar (scientists, architects, lawyers, economists, academics, clerical workers, etc.); (ii) sales and services (retail and wholesale workers, salesmen, hotel managers and workers, hairdressers, etc.); (iii) agriculture (farmers, forestry workers, fishermen, etc.); (iv) production (miners, masons, food processing workers, workers in textiles and garment, workers in other manufacturings, etc.); and (v) others, including no works. Ideally, the classification of occupation for VHLSS 2002 should follow the professional codes to be consistent with the VLSSs. However, the File_v (from VHLSS CD), the occupation code 92, namely “laundry, ironing” account for 54.47% of the total number of observations. Therefore, classifying occupation in accordance with the 2002 occupation codes will clearly misleading. As an alternative, using industry codes are reluctant solution with *white collar* (codes 70-99, except 72, 73, 93, 95); *sales* (codes 50-67, plus 72, 73, 93, 95); *agriculture* (codes 01-05); *production* (codes 10-45); and *others/no work*; and
- (ix) Education of the head: this subgroups defined by the highest degrees obtained is further divided into (i) no schooling; (ii) primary school; (iii) lower secondary school; (iv) upper secondary school; and (v) technical vocation school., colleges, universities.

Appendix 3: Calculations with household survey data

1. The household surveys

The calculations in this chapter are based on the 1992/93 Vietnam Living Standard Survey (VLSS), the 1997/98 VLSS and the 2002 Vietnam Household Living Standard Survey (VHLSS). The VLSS data is obtained from nation-wide nationally representative household surveys conducted in 1992-93 (October 1992 to October 1993) and 1997-98 (December 1997 to December 1998).ⁱ The VHLSS 2002 as the second round of household surveys in Vietnam was conducted in 2002, gathered expenditure data from 30,000 households, and income data from additional number of 45,000 households, compared to only 4,800 households in 1993 and 6,000 in 1998ⁱⁱ.

Each survey consists of two components, a household survey and a commune survey. The household survey component provides detailed information on schooling, health, employment, migration, housing, fertility, agro-pastoral activities, non-farm self-employment, food expenses and home production, non-food expenditure and consumer durables, credit and saving and some anthropometric variables. The commune questionnaire includes information on demographic variables, economy and infrastructure, education, health and a separate price questionnaire.

In 1992-93 4800 households in 150 communes were surveyed. The 1997-98 survey includes 6000 households (approximately 4300 households from the original 1992-3 sample) and 194 communes. The VLSS surveys are particularly useful as they allow the construction of a panel of 4303 households interviewed in both years that can be used to explore movements in and out of poverty over time. While the 1992/93 and the 1997/8 VLSSs covered 4,300 surveyed households in both periods and thus allow for some panel dimension, the 2002 VHLSS provides no useable panel data set.

The 1992/3 sample is self-weighting whereas the 1997/8 sample and the 2002 sample both have survey weights. To make the household sample representative of the national population we multiply the sample weight by household size. For the 1992/93 VLSS, which doesn't have a weight variable, the household sample is made population representative by the creation of a uniform weight (taking the constant value of 1) which was then multiplied by the household size. The use of weights is crucial. Without them the sample results cannot be used for inference to the population.

We derive from the VLSS and VHLSS an indicator of living standards measured by annual total household consumption expenditure per capita. All expenditures are adjusted using a regional price index and monthly deflators to give expenditure valued in January 1998 prices. Data from the 2002 VHLSS that were supplied to by GSO and WB already contained these adjustments.

2. Technical notes on calculations

2.1 The Growth Incidence Curve

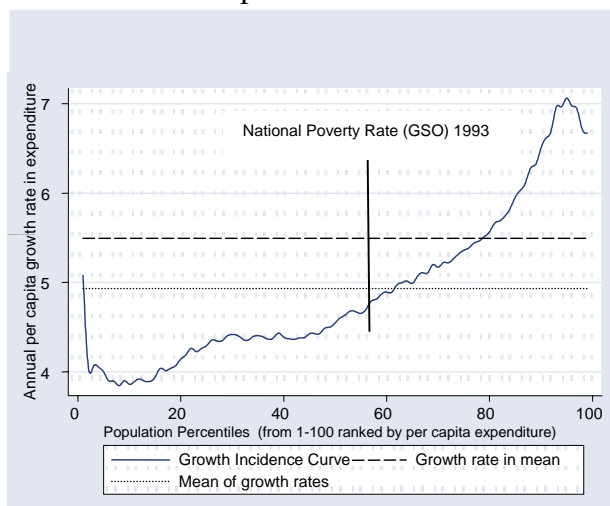
The Growth Incidence Curve (GIC), as explained by Ravallion and Chen (2001), shows how the growth rate for a given quintile varies across quintiles ranked by real per capita expenditures in 1998 prices. The series of GICs were generated by the following STATA command:

```
gicurve using filename [w= hhsizewt], var1(rlpcex1)
var2(rlpcex1) ginmean meangr [yperiod(#)]
```

In that command, *filename* is the name of using file in year 2; *hhsizewt* is household weights; *rlpcex1* is the real per capita expenditures given in 1998 prices in both the year 1 and year 2 data; option *ginmean* outputs growth in mean line on the graph; option *meangr* outputs mean percentile growth rate line on the graph; *yperiod(#)* is an option to convert growth rate over the period to annual growth rate. The conversion is made by the following formula: $\{[(\text{period rate}+1)^{(1/\text{years})}]-1\}$ following the procedure in Ravallion and Chen (1991).

The GICs are plotted for the three periods between 1993-1998; 1998-2002; and 1993-2002. In each period, there are two GIC which presents growth rates for a given quintile by both annual growth rates and the growth rate over the whole period. The period between the 1992/93 and the 1997/8 VLSSs is assumed to have a span of 5 years, as data on nominal expenditures are given in from January 1993 to January 1998 and the duration between the two surveys should be counted in line with such figures. Similarly, the number of years in 1998-2002 is counted from January 1998 to January 2002, given the duration of 4 years.

The GIC for the entire period 1993-2002 has the following shape:



Beside the growth incidence curves, the *gicurve* command give conveniently the Ravallion and Chen rates of pro-poor growth of the poorest 20%, for the national poverty rate and the food poverty rate and for the Watts index using national poverty line and food poverty line. While these measures only consider distributional changes below the chosen poverty line, the mean percentile growth which is also calculated takes up information from the whole distribution. This measure of pro-poor growth corresponds to the concept of equal-weighted growth rate proposed by Klasen (2003).

2.2 Poverty elasticities to growth

Poverty elasticities to growth are computed for both national poverty line and the food poverty line (given in 1998 prices as noted above), using the FGT family of poverty measures and the Watts index. The FGT indices are generated by the following STATA command:

```
povdeco rlpcexl [w= hhsizewt[, pline(#)
```

where `pline(#)` is in turn 1790 and 1287 as the national poverty line and the food poverty line, respectivelyⁱⁱⁱ. The Watts index is computed using the following STATA command: `poverty rlpcexl [w= hhsizewt[, pline(#) w`, where option `w` outputs the Watts index^{iv}.

The annual growth rates of all poverty indices and real per capita expenditures (in 1998 prices) in the three periods under considerations are estimated using the Ravallion and Chen (2003) converter. Poverty elasticities to growth are then calculated using the method suggested in Kakwani and Pernia (2000). They measure the percent change in poverty incidence with respect to the change in mean real expenditure per capita.

2.3 Growth and inequality contributions to poverty reduction (Datt-Ravallion decompositions)

The change in poverty between two years could be decomposed into three components. The growth component is the difference between the two poverty indices keeping the distribution constants. The redistribution component is the change in poverty if the mean of the two distributions is kept constant. The residual component shows the change in poverty due to interaction of growth and inequality. This decomposition was developed by Datt and Ravallion (1992).

The calculation of the Datt-Ravallion decomposition is carried out by the following STATA command:

```
gidecomposition varname [w= hhsizewt], var1(rlpcexl)  
var2(rlpcexl) pline1(#) pline2(#)
```

where `pline1(#)` `pline2(#)` are the poverty lines in year 1 and year 2, respectively.. Similarly to other calculations, the national poverty line and food poverty line are used for the decomposition in the three sub-periods.

2.4 Sectoral decompositions (Huppi-Ravallion decompositions)

A change in poverty between two dates could be decomposed into three components: *the intra-sectoral component* shows the contribution of poverty changes within the sector, controlling for their base period population share. *The population-shift component* tells us how much of the poverty in the first data was reduced by the various changes in population shares of sectors between then and the second date. *The interaction component* arises from the possible correlation between sectoral gains and population shift, the sign of the interaction effect tells us whether people tended to switch to the sectors where poverty was falling or not.

This decomposition proposed by Huppi and Ravallion (1991) is made by the following STATA command:

```
sedecomposition using filename, var1(rlpcex1) var2(rlpcex1) pline1(#)  
pline2(#)
```

It is applied to urban and rural areas and to the seven regions of Vietnam (as of 1998).

ⁱ The VLSS data sets were collected by Vietnam's General Statistical Office (GSO) and the Ministry of Planning and Investment (MPI), with financial assistance from the United Nations Development Program (UNDP) and the Swedish International Development Agency (SIDA) and technical assistance from the World Bank.

ⁱⁱ Unlike the two VLSS, the VHLSS 2002 was fully conducted by GSO

ⁱⁱⁱ This is a STATA ado file written by Stephen P. Jenkins, Institute for Social and Economic Research, University of Essex, Colchester CO4 3SQ, U.K, at [Hhttp://www.stata.com](http://www.stata.com)H

^{iv} This is a STATA ado file written by Philippe VAN KERM, University of Namur, Department of Economics, Rempart de la Vierge 8; B-5000 Namur, Belgium, at [Hhttp://www.stata.com](http://www.stata.com)H

Appendix 4: Calculation of factor contributions to growth

Doanh and al. (2002) as well as Fan et. al (2003) calculate total factor productivity growth (or Hicks-neutral technical change) and the factor contribution to growth on the basis of a Cobb-Douglas production function for the Vietnamese economy which implies constancy of the production elasticities of the factors of production and (under the assumption of perfect competition) also of factor income shares. In the most simple case total production Y is produced with only two input factors, namely real capital K and labour L , the production elasticity of capital being π_K and the production elasticity of labour being $\pi_L = (1 - \pi_K)$. The growth rate of total factor productivity TFP can thus be calculated in the following way.

$$(1) \frac{dTFP}{TFP} = \frac{dY}{Y} - \pi_K \frac{dK}{K} - (1 - \pi_K) \frac{dL}{L}$$

Total output growth is measured on the basis of GDP values at 1994 prices. Labour is measured by total employment data, including people aged 15 and above. Data for real capital are constructed using the perpetual inventory method, treating all capital goods as homogeneous and applying an annual depreciation rate of 5%. All data prior to 1990 have to be regarded with high caution and can only give information about very general trends.

Capital income share was assumed to take a baseline value of 0.4 (leaving a labour share of 0.6). Sensitivity analysis also consider capital income share of 0.3 and 0.5. The problem with defining a robust measure of the capital income share comes from the official no-existence of capital income in the years before Doi Moi and a still high investment rates in the public sector where the calculation of market rates of return is extremely complicated. The authors seem to find some evidence that the assumed values of π_K are still too high, because they also reestimate with the assumption that $\pi_K = 0.196$ and $\pi_L = 0.659$ leaving it open what role a third factor of production has to play.

Based on the baseline assumptions the calculations by Doanh and al. (2002) show that one major achievement of the Doi Moi reforms starting in 1986 was the immediate chngement in the growth contribution of real capital. Before the reforms the measured capital stock had been declining (probably as a result of the non-existence of economically meaningful capital costs and prices), after the starting of the reforms, the contribution of capital growth to total production growth was steadily rising. A particular pronounced increase can be found in the 1998 and 1999 when about two third of the growth rate could be attributed to the growth of the capital stock. The share of labour in explaining real GDP growth did not show a very pronounced trend after Doi Moi. After relatively high values in the end 1980s it fell over the 1990s reaching the lowest values in 1996 and 1997 and then started to increase again. Finally, in the first years of Doi Moi period TFP growth could explain on average 2 thirds of real output growth, these values fell to about one half in the first part of the 1990s and to less then one third in the years after the Asian crisis.

Sensitivity analyses reveal that the lower the values for the production elasticity of capital are chose the higher becomes the importance of TFP growth. This calls for a further analysis of the determinants of TFP. One obvious determinant of growth that is not captured in the most simple analysis fo TFP is human capital formation. Extending the calculation of TFP to include himan capital formation would, however require solid knowledge not only about the growth a human capital stock but also about the production elasticity of human capital.

Appendix 5: Methodologies used in the calculation of trade-offs

1. The methodology used by Roland Holst et al. (2002) and Tarp Jensen and Tarp (2003):

Both simulations are based on the 1997/8 Vietnam Living Standard Survey (VLSS) and on the 2000 Social Accounting Matrix (SAM), developed by Central Institute of Economic Management (CIEM) and Nordic Institute of Asian Studies (NIAS). The paper by Tarp Jensen and Tarp works with a slightly revised and augmented version of SAM, developed in 2000. SAM is a data system capturing interdependencies within Vietnam's socio-economic system. As explained in Tarp et al. (2003) it relies on a variety of official sources for domestic economic data and on data on international trade. On the production side SAM covers 97 activities and 97 counterpart commodities, 14 different factors of production (capital, land location etc) and 16 aggregate households (rural/urban, employment status etc.), constructed out of the 6000 households from the 1998 VLSS. The database is used to calibrate 2 CGE models.

2. The methodology used by Fan et al. (2003)

The estimated simultaneous system consists of the following three equations:

- (1) $Y = f_1 (\text{LAND}; \text{FERT}; \text{LABOR}, \text{DANIMAL}; \text{TRACTOR}, \text{PIRRI}, \text{LITE}, \text{PHONE}, \text{ELECT}, \text{ROADS}, \text{RS9})$
- (2) $\text{NFE} = f_2 (\text{LITE}, \text{ROADS}; \text{PHONE}, \text{ELECT}, \text{LP})$
- (3) $\text{P} = f_3 (\text{LP}, \text{NFE}, \text{UP})$

Equation (1) is the production function of the agricultural sector, equation (2) determines non-farm employment and equation (3) models poverty determination in rural Vietnam.

The variables are the following:

Y= agricultural production measured in constant prices (including crop, animals, fishery and forestry subsectors)

LAND= agricultural land

LABOR=agricultural employment

FERT=fertilisers

TRACTOR=tractors

DANIMAL=number of draft animals (mainly water buffalos)

ROADS=length of roads in km per thousand square km

PHONE=number of telephone connections

ELECT=percentage of rural households having electricity connection

PIRRI=percentage of cropland irrigated

LITE= percentage of rural population who are literate

RS=Stock of agricultural research, constructed from data on annual research expenditures

NFE=rural non-farm employment as a share of total rural employment

LP= agricultural labour productivity (Y/LABOR)

UP=percentage of urban population in total population