

A Bright Future Ahead? A Pilot Study of the Vietnamese Labour Market and its Social and Economic Context*

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1. Introduction

The development of the Vietnamese economy during the last 20 years is mainly a success story, since incomes have been rising continually and poverty has been declining (see Table 1). Vietnam has outpaced several of the countries in the region (not only Myanmar, von Hauff 2009). In January 2007 Vietnam became a member of the WTO. Though the economic situation has improved, Vietnam's dominant economic problem is still its low national income per capita. According to data provided by the Vietnamese General Statistical Office and compiled by the World Bank it was US\$ 790 per capita in 2007 (World Development Report 2009: 353). If this indicator is re-calculated according to purchasing power parities, the figure rises to US\$ 2550. However, this is still very low, as can be seen by comparing the figures with those for Germany: US\$ 38,860 in absolute terms and US\$ 33,820 in purchasing power. These are average figures, which also include millionaires. By European standards the majority of the population in Vietnam must be regarded as poor. Anyone who earns significantly less than the average is in immediate danger of starvation and living in severe poverty.

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Recently, there are symptoms of an impending crisis. Vietnam has been affected by increases in the international prices of many goods and resources. In 2008 imported inflation was a threat to stable development: by March 2008 the price level had increased by 32% in the past 12 months (Dinh, Kubota, Rama 2008). A related and even more severe danger is the trade deficit, which has reached alarming proportions. The 2008 forecast as regards the trade deficit is about 12%, and for the current account deficit 19% of GDP. Vietnam's economy is therefore in a difficult situation even before the consequences of the international crisis on the world's financial markets are felt in this country.

At only 4.6% (2007 – cf. Table 1), Vietnam's unemployment rate is relatively low but it underlines the labour market problem. Since there is no unemployment benefit, losing a job results in strong pressure to take up employment in the informal sector of the economy in order to compensate for the loss. Accordingly, the informal sector has grown very considerably. It consists above all of innumerable people who have their own small businesses or work in a family shop, for example as a soup seller at the roadside or as a rickshaw driver. Many of the jobs in the informal sector yield only minimal incomes. Virtually every Vietnamese who is affected by unemployment does some kind of work in this sector as he or she needs an income in order to survive. A figure stating the level of unemployment therefore understates the problem. It is impossible, however, to assess the size of the informal sector by using official statistics.

In order to characterise the scale of the labour market problem in Vietnam it is more appropriate to use a measure that can be called underemployment. A person is considered underemployed when he or she earns such a low income that he or she is unable to live off it. Possible reasons for such a low income are part-time work or low work productivity. According to estimates made by experts, it would be possible to dispense with approximately 40% of the workers in agriculture without raising technical standards and without reducing the soil productivity. In the informal sector, too, there are many self-employed people who work with very low productivity.

The structural problems of the Vietnamese labour market are further aggravated by the fact that the matching of supply and demand does not work properly. The usual institutions that market economies create to improve the matching process on the labour market are barely developed. Job placement and occupational guidance are conducted at employment service centres, over 150 of which are acknowledged by the Ministry of Labour, MOLISA. However, these centres are not adequately equipped for the matching task. According to the available information the market share of the employment service centres is very low (well below 10%). Many firms

TABLE 1: Basic Indicators of Vietnam

	1994	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP per capita (US\$)	214	326	317	330	374	401	410	430	475	540	640	722	790
Growth rate in real terms (%)	8.8	9.3	8.2	5.8	4.8	6.79	6.9	7.04	7.24	7.7	8.4	8.23	8.48
Inflation rate	9.5	6.5	6.0	9.2	0.1	-0.6	0.8	4	3	9.5	8.4		
GDP (bn Dong VN)	178534	272036	313623	361017	399942	441646	481295	535762	613443	715307	839211	974266	1144015
Population (m)	70.8	73.2	74.3	75.5	76.6	77.6	78.7	79.7	80.9	82	83.12	84.1	85.1
Export (US\$m)	4054	5449	7256	9185	9360	11541	14483	15029	16706	20149	26485	32447	39826
Import (US\$m)	5826	8155	11144	11592	11500	11742	15637	16218	19746	25256	31969	36761	44891
Balance of payments on current account (US\$m)	-1772	-2707	-3888	-2407	-2139	-201	-1154	-1189	-3040	-5107	-5484	-4314	-5065
Foreign debt burden (US\$bn)	5.6	8.5	8.8	19.9	20.5	11.6	12.2	13.3	17.2				
Unemployment rate		5.9	5.8	6.9	7.4	6.44	6.28	6.01	5.78	5.6	5.3	4.82	4.64
Foreign investment: - carried out	2041	2556	2714	3115	2367	2335	2414	2451	2591	2650	2853	3309	4100
- announced (both US\$m)	2540	3705	3511	2649	2474	975	1312	1709	1272	1139	1217	1973	4675

Sources: General Statistical Office; internal information from MOLISA, CIEM; World Bank: World Development Report (various years); 2007 estimated

and many workers are not even aware of their existence. Some measures of an active labour market policy, including the promotion of vocational training, are carried out by the centres, but again their resources to fulfil this function are limited.

Some years ago it was already argued that Vietnam's labour market was balanced on a knife-edge (Blien, von Hauuff, Phan 1998). Labour supply is increasing so rapidly in this country that it remains to be seen whether labour demand will grow equally rapidly. For this reason it is important to examine the labour market more closely as one central intermediary in a developing market economy. The labour market is the part of the economy where decisions are made about many people's chances in life and where the poor are separated from the less poor or the rich. Labour market problems directly affect the standard of living of some sections of the population. Furthermore, they have a detrimental effect on economic growth. When unemployment and mismatch occur, the production potential is not fully utilised. There is still no appropriate data basis for identifying the problems and for forming an information basis for current state-run measures (see Blien, Phan 2006). This has prompted considerations about new information tools.

2. Two surveys in the Vietnamese city of Vinh

In order to analyse Vietnam's labour market and its social and economic context, two special surveys were carried out, one in 1999 and one in 2005. In both surveys over 2400 households including about 6000 individuals of working age were interviewed directly about their income, vocational training, employment status etc. The surveys do not cover the whole country but, in the form of a regional pilot study, concentrate on Vinh City, a town in central Vietnam with approximately 200,000 inhabitants. It was decided that it would be more fruitful to collect and analyse data about only one region (the sampling rate was about 6% in each survey), than to conduct representative study for the whole country. In a case study the quality of the data can be controlled better.

Although the results of the survey are representative only of Vinh City, they nonetheless yield a great deal of information about Vietnam in general. In a way this city is typical of the situation in the country as a whole. It represents a fictitious average between the rural areas and the large agglomerations of Ho Chi Minh City and Hanoi. Since the survey is representative of the whole population of Vinh, it maps a lot more than just the labour

market. It includes in particular the large informal sector of this economy, which is important for assessing the development process. Now the data can be used to make comprehensive analyses of processes determining the living standards of many people. The dynamics of a transformation and developing economy can be shown at micro-level from new perspectives. A comparison of the results indicates the development trends.

The surveys yield valuable information not only about the situation on the labour market but also about the regional economy. The data were used for planning purposes in social security and labour market policy. Although Vietnam is a very dynamic country, the data can still provide a good deal of information about certain structural problems.

In the following we outline the surveys carried out in the city of Vinh. As already mentioned, there were good reasons not to try to conduct a representative study for the whole country but only a regional pilot study. The main reason was that the fieldwork could be controlled better when all the interviewers were active in the same region. According to our assessment the effective supervision of the fieldwork was one of the constant quality problems of other research in Vietnam.

Vinh City was chosen as the survey location because it is located in the centre of Vietnam and can represent the situation of comparable towns on the labour market. The concentration of international studies on the metropolitan areas of Hanoi and Ho Chi Minh City (see for example Friedman 2004) can partly be compensated by our study. For the Vietnamese authorities it was important that Vinh City be able to serve as a regional experimentation field for labour market policy in order to test measures.

One of the first surveys which attempted to depict the labour market and in particular the income situation in Vietnam was the survey conducted in Vinh City in 1999. The aim of this survey was to record certain information about the labour market and its social and economic background with more precision than had previously been possible.

Only by making a survey of a relatively large sample, 6% here, was it possible to observe the local labour market adequately and intensively enough. The data collected about income, occupations, industries, household situations, the employing firms etc. were intended to make it possible to recognise those labour market problems towards which policy measures are orientated. The 1999 survey was updated by another survey in 2005. Conducting a repeat survey as a follow-up makes it possible to identify precisely the changes that have taken place in the interim. The three objectives of the project can be specified as follows:

- to create a reliable database for purposes of scientific research;
- to provide information for the planning of labour market and social policy. Current information requirements of the Vietnamese state are to be taken into account in the survey. This concerns among other things the plan to introduce unemployment benefit;
- to improve techniques of empirical social research and economic analyses: here it is important to bring together the experiences made in Vietnamese social and economic research with those in Europe. This objective is threefold: to improve the techniques of questionnaire design, to use new methods in the field work, especially with regard to supervision in the survey, and to include the time dimension in the analyses. The primary focus is no longer on examining cross-sections but on analysing development processes.

There is a lack of information about Vietnam's labour market because the country's statistics and relevant surveys are not sufficiently developed. This makes it difficult to implement labour market policy measures. For these reasons the Vietnamese Ministry of Labour (MOLISA) was very interested in a repeated labour market survey to close information gaps.

Another function of the survey was to obtain additional data about key structural variables of the Vietnamese labour market and its embedding in a transformation economy with a large informal sector. It is important to gain information about the development of individual sections of the labour market, about the development of industries and occupational groups. So far there is hardly any basis for the planning of education and training measures. Bottlenecks on the labour market are not recognised in time. There is far too little information available for the occupational guidance and job placement conducted in the so-called employment service centres.

Finally, there are hardly any data stocks available for detailed multivariate analyses. The numerous studies conducted by various Vietnamese and international research groups mainly publish tables of descriptive information. One of our objectives was thus to remedy this and to examine the Vietnamese labour market in intensive in-depth analyses using modern statistical and econometric methods.

To sum up, it can be said that information about the labour market is of great importance in order to gain general insights into the relevant causal processes, and to improve labour market policy. The data collected by the survey should make it possible to recognise the problems towards which labour market and social policy are orientated. These include the distribution of income across different groups of workers, the relationship between the wage and its determinants (such as qualification level, occupational group or age of the workers concerned, ownership form of the employing firm etc.)

and the incidence of poverty. The data obtained can then be used, in a suitably prepared form, by those responsible for national planning and by the employment service centres to prepare vocational training.

Only by surveying a relatively large sample is it possible to observe the labour market in sufficient detail. At the same time there are relatively stringent demands as regards the quality of the data. In the 1990s it was almost impossible to gain detailed information about income. Information on the income variable was also collected in the Labour Force Samples, but only in a very rough and not particularly reliable way. More precise details were essential in order to be able to understand developments in the Vietnamese labour market.

In the meantime the situation has changed considerably. Social research has adapted to the situation in Vietnam. It is clear that valid and reliable information concerning income can be obtained using suitable techniques. A number of special surveys exist including the new waves of the Living Standards Survey, which provide valuable sources of data for analyses of poverty and for studies on the standard of living. Nonetheless, even in the first decade of the 21st century there is still a lot to be done and the available instruments still need to be improved.

The two surveys were designed to obtain answers to the following questions concerning the region of Vinh:

- How fast are incomes rising?
- How important is the role of the state in the transformation economy?
- How large is the informal sector?
- How important are formal general qualifications?
- Does it pay to invest in occupational qualifications?
- How important is formal private employment?
- How large is the unemployment problem?
- How many people live in poverty?

Of course, there are many other questions which could be answered using the data. The two regional labour market surveys in Vinh make it possible to include the time dimension. This is of great importance since the comparison of two cross-sections from 1999 and 2005 opens up completely new analytical possibilities. Trends can be identified. Furthermore it is possible to analyse the stability or volatility of the labour market. The two surveys provide data on the following areas:

- employment status and, if applicable, labour market status
- reliable, detailed information on income
- status information as regards social insurance
- integration in the household context
- information about the employing firm

- information about the social context
- basic information and employment-risk information about the work performed
- training
- savings
- consumption

The order of the items in the questionnaire was carefully planned. As mentioned earlier, when the first survey was conducted, Vietnamese experts had claimed that it was not possible to obtain reliable information about income in Vietnam as the respondents would be reluctant to reply. They claimed that if people felt they were being forced to open up, they might give false answers. In order to rule out such behaviour as far as possible the following strategy was chosen: the respondents were first asked about their consumption and the expenditure associated with it. This is possible as the normal consumption basket in Vietnam is much smaller and less varied than in Central Europe. By giving details about their consumption, the respondents committed themselves to a certain level of expenditure in the first phase of the interview. If the interviewer was working reliably, it was no longer possible to fall far below the reported level of expenditure in the subsequent questions concerning income.

In this and other aspects, the structure of the questionnaire for the surveys in Vinh represents up-to-date techniques of social research. Particular importance was attached to structuring the questionnaire in such a way that the respondents were led step-by-step to reliable answers. Here our basis was knowledge from cognitive social psychology mobilised for survey research (Schwarz 1999 & 2003; Schwarz, Hippler, Noelle-Neumann 1989). In the cognitive approaches it is taken into account that the respondents are unable to recall certain facts or evaluations immediately but first have to mobilise the information required. Targeted questioning helps them to find the right answers.

The design of the questionnaire is modelled on large surveys conducted in Germany, in particular the Socio-Economic Panel and the BIBB-IAB (Bundesinstitut für berufliche Bildung – Institut für Arbeitsmarkt- und Berufsforschung) career history study. It was based on the Vietnamese Labour Force Survey and a Vietnamese labour market panel, then discussed with experts from the Institute for Employment Research (Institut für Arbeitsmarkt- und Berufsforschung) and revised in Vietnam. In addition, one of the authors of this paper (Van) has many years of experience in designing surveys and conducting interviews in Vietnam, which helped in developing the questionnaire. In this way it was hoped that the questionnaire for the labour market in Vinh both represents the current level of empirical social re-

search, and, equally, that it can ascertain the particularities of the transformation process in Vietnam and the specific conditions there.

As it was not feasible to conduct a panel survey in 2005 because the original respondents' addresses were no longer available, it was necessary to use a special method in order to take into account the time dimension as much as possible. The connection with the situation in 1999 was sought by asking additional questions about the employment status and household context at that time. The longitudinal reference is achieved by means of this retrospective questioning. Here more changes have to be made to the questionnaire than in the panel design. The comparison of the results of the 1999 survey with those of the current retrospective questions permits a longitudinal design in the evaluations even without panel questions.

The target group of the study in Vinh consisted of people aged between 13 and 65. In 2005 a random selection from a 5.6 percent sample of the population was made. It was possible to have the sampling ratio somewhat lower than 1999 (6.2%) as the population had grown. When the sample is extrapolated, the population of working age amounts to 117,446 (2005) and 112,081 (1999). The procedure used to gain a random sample is described in detail in a 2006 report by the Institute for Labour Science and Social Affairs (ILSSA) of the Ministry of Labour, Invalids and Social Affairs (MOLISA). It appears to be very efficient and ensures that the results can be transferred to the whole population. The study population consists of people in the households of the sample. The questionnaire is a household questionnaire with sections for individual people.

The improved field supervision striven for required that intensive checks be made during the survey work. For this a team was nominated by MOLISA/ILSSA which, in cooperation with Van, made random checks and assessed the interviewers' work. Hundreds of questionnaires were inspected by Van. In the case of imprecision on the part of the interviewers they had to return to the respective households and collect the missing information. The rigorous checks on the questionnaire revealed problems: communication difficulties between researchers and interviewers or simply poor work on the part of the interviewers. In many cases it was possible to remedy this directly, as the data collection process was corrected immediately. In 2005 the set of measures used to improve data quality was further extended. A number of households were interviewed twice, once in the actual survey and a second time for checking (test/retest-design).

3. Empirical results

3.1 Some population characteristics

One great advantage of the study design used here is that it is possible to draw comparisons between the results obtained in 1999 and those of 2005. They permit an assessment of the development of the labour market and the economy in Vinh. In addition, a certain appraisal of the reliability of the surveys is possible. If the structures of 1999 and 2005 diverge considerably it will have to be assumed that something went wrong with at least one of the two surveys. Fortunately this is not the case, as is demonstrated below.

Table 2 shows the study population for the two surveys. The first row of the table gives the figures for people living in the sample households who are at least 13 years old. If the labour force potential is measured in terms of the population of working age (men aged 15–60 and women aged 15–55 according to Vietnam's legal regulations) then the share of this population decreases somewhat. If the number of people in gainful employment is compared with this potential, labour force participation rates of 54.5% (1999) and 61.9% (2005) are obtained. This increase points towards a favourable development of the economy and the labour market.

The age structure of the Vietnamese population is reflected in the large proportion of people in training. The proportion of unemployed is falling. If the unemployment rate is calculated on the basis of the entire labour force then it was 7.31% in 1999 but only 3.46% in 2005. This is the result of increasing labour force participation. The number of pensioners is relatively small as the Vietnamese population is very young. Some people are formally retired but are still working.

3.2 The basic structure of the economy

When presenting the results it is particularly important to differentiate between the formal and the informal sectors of the economy. The informal sector consists of people who are self-employed and do not employ anybody else. Small firms with fewer than 10 employees are also included in this category because some regulations of the labour code and other laws do not apply to them and those which do apply are frequently not enforced by the state. All persons in employment without a formal contract are also classified as belonging to the informal sector. We checked with our data that the two definitions are virtually interchangeable. People working in agriculture were excluded from the income analyses as it must be assumed that they produce some of their own food themselves. Persons employed in state-owned industries and in private enterprises with at least 10 employees and those employed by the state administration are classified as working in the

TABLE 2: Number of persons aged between 13 and 65 according to working status

	2005			1999		
	Total	Women	Men	Total	Women	Men
Total of working age	6577	3393	3184	6949	3554	3395
1. Working	5766	2864	2902	6030	3037	2993
2. Retired people doing spare-time work of working age	3571	1794	1777	3285	1686	1599
4. Retired people without spare-time work of working age	547	306	241	813	476	337
5. Training without spare-time work of working age	346	171	175	613	366	247
6. Unemployed	464	279	185	422	203	219
	225	103	122	248	97	151
	1577	775	777	1985	916	979
	1296	630	642	1478	715	763
	128	46	82	259	96	163

Source: Own calculations using the data from the labour market surveys conducted in Vinh in 1999 and 2005

TABLE 3: Qualification-specific wages (averages; VND '000) in the formal and informal sector, 1999 and 2005

Vocational training	1999													
	Formal sector						Informal sector							
	Total		Employees		Self-employed		Total		Employees		Self-employed			
N	%	Wage	N	%	Wage	N	%	Wage	N	%	Wage	N	%	Wage
No vocational training	162	9.7	421	896	30.3	407	163	39.8	284	733	44.5	435		
Lowest vocational training	93	5.6	478	181	6.1	405	30	7.3	274	151	9.2	431		
Vocational school – incomplete	93	5.6	388	271	9.2	459	90	22.0	395	181	11.0	492		
Vocational school – completed	261	15.6	478	248	8.4	543	73	17.8	502	175	10.6	560		
Higher vocational school	516	30.8	475	360	12.2	504	38	9.3	383	322	19.6	519		
Polytechnic, university, other institution of higher education	507	30.3	613	98	3.3	647	15	3.7	541	83	5.0	666		
Master's degree, doctorate	35	2.1	991		0.0			0.0			0.0			
Other qualification	7	0.4	720	3	0.1	500	1	0.2	100	2	0.1	600		
Total	1674	100	520	2057	69.6	459	410	100	364	1647	100	482		

TABLE 3 *continued*

	2005											
	190	9.6	802	958	55.0	889	198	45.9	610	760	57.9	972
No vocational training	133	6.7	1023	147	8.4	1081	41	9.5	1002	106	8.1	1114
Lowest vocational training	56	2.8	835	158	9.1	1100	60	13.9	710	98	7.5	1372
Vocational school – incomplete	260	13.1	1085	190	10.9	1228	70	16.2	1252	120	9.1	1213
Vocational school – completed	448	22.6	1114	182	10.4	1182	35	8.1	740	147	11.2	1299
Higher vocational school	823	41.6	1377	96	5.5	1950	23	5.3	976	73	5.6	2295
Polytechnic, university or other institution of higher education	68	3.4	1652	3	0.2	1133	2	0.5	1100	1	0.1	1200
Master's degree, doctorate				9	0.5	1318	2	0.5	475	7	0.5	1600
Other qualification												
Total	1978	100	1194	1743	100	1062	431	100	797	1312	100	1149

Source: Own calculations using the data from the labour market surveys conducted in Vinh in 1999 and 2005

formal sector of the economy. One of the great advantages of the Vinh surveys is that they enable the researchers to identify these sectors of the economy.

Table 3 shows the distribution of people across the main sectors of the economy and their respective average incomes in 1999. People working in agriculture are again excluded. The status of self-employed also covers unpaid family workers. The table illustrates the special circumstances in Vietnam, which differ considerably from those in western countries. The informal sector of the economy is very large. In 1999 no less than 44% of the economically active people in the sample (outside agriculture) were self-employed. Only very few of the very small businesses had any employees. By 2005 the proportion of self-employed people had fallen to 35%, as can be seen in Table 4.

The share of people working in the formal sector has grown correspondingly, namely from 45% to 53%. What is remarkable here is that only a small part of this increase can be attributed to employment growth in the larger private enterprises. It is also important that the share of people working in the national administration remained virtually constant at over 20%.

The percentage of people employed in private enterprises in the formal sector only grew from 2.6% to 4.1%, while the number of people employed in the informal sector remained virtually constant. What is sometimes formulated for the Vietnamese economy as a whole, namely that its astonishing development is not predominantly sustained by the private but the still important state sector (Van Arkadie, Mallon 2003), can be seen quite dramatically at the regional level of Vinh City. The state-owned enterprises have increased the number of employees considerably. It must be borne in mind that the figures represent employment, not production, which could give a completely different picture. However, no export-orientated production zones are located in Vinh and there are only a few large joint-ventures. The further division of the formal sector can be seen in Table 4.

3.3 Development of income in the various sectors

The last column of Table 5 shows striking income increases for the individual sectors of the economy. Most of the nominal increases were over 100%. According to official information (General Statistical Office of Vietnam), in the six years between the two surveys inflation amounted to approximately 27.5% (if the inflation during the whole of 1999 and 2005 is included in the calculation – cf. Table 1). Economic growth per capita in real terms stood at 47.6 (once again calculated for full years according to Table 1 and taking

TABLE 4: Qualification-specific wages (averages; VND '000) in private and state-owned enterprises, 1999 and 2005

Vocational training	1999						2005											
	Formal sector		Private enterprises		State-owned enterprises		Formal sector		Private enterprises		State-owned enterprises							
	N	% Wage	N	% Wage	N	% Wage	N	% Wage	N	% Wage	N	% Wage						
No vocational training	162	9.7	421	26	27.1	742	136	8.6	360	190	9.6	802	34	22.1	618	156	8.6	841
Lowest vocational training	93	5.6	478	4	4.2	400	89	5.6	482	133	6.7	1023	14	9.1	1228	119	6.5	999
Vocational school – incomplete	93	5.6	388	24	25.0	502	69	4.4	349	56	2.8	835	10	6.5	704	46	2.5	863
Vocational school – completed	261	15.6	478	17	17.7	492	244	15.5	477	260	13.1	1085	29	18.8	1027	231	12.7	1092
Higher vocational school	516	30.8	475	19	19.8	550	497	31.5	473	448	22.6	1114	29	18.8	1275	419	23.0	1102
Polytechnic, university or other institution of higher education	507	30.3	613	5	5.2	910	502	31.8	610	823	41.6	1377	36	23.4	1509	787	43.1	1371
Master's degree, doctorate	35	2.1	991	1	1.0	800	34	2.2	997	68	3.4	1652	2	1.3	1100	66	3.6	1669
Other qualification	7	0.4	700		0.0		7	0.4	700									
Total	1674	100	520	96	100	595	1578	100	515	1978	100	1194	154	100	1097	1824	100	1202

Source: Own calculations using the data from the labour market surveys conducted in Vinh in 1999 and 2005

into consideration that the population has grown). It is obvious that the growth rates of personal income in Vinh were again higher. How is this possible? It might be that the official statistics underreport the economic upswing in Vietnam – at least this is a conjecture of international experts (Van Arkadie, Mallon 2003). This could be due to a concentration on the state sector and an underreporting of the informal economy. On the other hand, the development in Vinh cannot be extrapolated to the country as a whole. Instead it must be assumed that towns and cities benefit from the development more than rural areas, which dominate in terms of population. Inflation, too, may differ more between regions than is the case in western countries. Nonetheless, the income increases are impressive. Vinh does not make the impression of being an especially booming area compared with other Vietnamese regions.

However, the absolute income level is still very low. A monthly income of 1.194 million Dong in the formal sector is approximately equivalent to US\$ 76 at an exchange rate of 1:15,800. The World Bank converts the nominal incomes of quite a number of countries into purchasing power parities (World Bank 2007: 287f.). According to these calculations the income cited above is equivalent to a value of US\$ 369 in real terms because many things are cheaper in Vietnam than in developed countries. Nonetheless, this average value is still very low. Compared with western European standards most of the people are poor. The stock of people living below given poverty lines is examined more closely in a later section of this paper.

It is also remarkable that of the various sub-populations examined in 2005, those employed in private enterprises show the lowest average incomes and also below-average growth rates. Those employed in private enterprises in the formal sector stand out even more clearly.

3.4 Qualification levels

Tables 3 and 4 provide information about the education and training levels of the population in 1999 and 2005. Only those who have not acquired a degree at a higher vocational school or a polytechnic or university are included in the first four rows of the tables.

Analyses of the 1999 data showed that 32.4% of the employees in the formal sector had a university degree (Table 3), which led to doubts about the reliability of this result. In the 2005 survey, the respondents were therefore asked whether they had completed a regular course of studies so as to exclude doubtful cases. Furthermore, information about the education and training level was obtained in two questions (not only in one, as in the 1999 survey), in order to see whether respondents had double qualifications. The more practical training courses (categories 1–4, Table 4) were recorded in

TABLE 5: Development of average wages (VND '000) by sector

	2005		1999		Change (%)
	N	Income	N	Income	
<i>Formal sector</i>	1978	1194	1674	520	129.6
of which: state administration	782	1226	710	535	129.2
state-owned enterprises	1050	1157	868	499	131.9
private enterprises	154	1097	96	595	84.4
<i>Informal sector</i>	1743	1062	2057	459	131.4
of which: employees	431	797	410	364	119.0
self-employed	1312	1149	1647	482	138.4

Source: Own calculations using the data from the labour market surveys conducted in Vinh in 1999 and 2005

one question, the higher qualifications (categories 5–8) in another. The details shown in Table 3, on the other hand, are based on the one question that was asked in 1999.

The changes in the interview technique led to interesting results as regards methodology. Some shifts become apparent but they are not large. If Tables 3 and 4 are compared, very similar structures are revealed, which are shown by independent measurements at an interval of six years. This is what was meant by the statement above that the comparison of results yields positive indications as to the validity and reliability of the two studies. In fact the impression is gained that even the details of the 2005 structure are closely connected with those of 1999.

The general picture not only remains relatively stable, a clear trend towards higher qualifications can also be recognised. In the formal sector no less than 45% of the employees have a university degree or a qualification from a polytechnic or a comparable institution. This is a very high figure, which must, however, be judged in relation to the Vietnamese education system. Many of the educational institutions that are regarded as universities would not be classified as such in a western country.

The employee structure of the informal sector is completely different from that of the formal sector. The proportion of highly qualified employees is lower by a factor of approximately ten. University education is obviously a key requirement for access to the formal sector. This is a clear example of a special form of segmented labour markets.

In addition to showing the number of people in the sample, Tables 3 and 4 also present the qualification-specific average wages. It becomes clear that especially the differences in the lower education levels are not very pronounced. This needs to be examined more closely in a multivariate analysis.

3.5 Qualification-specific wages

Tables 6 and 7 show the results of multivariate wage analyses using the survey data of 1999 and 2005. In this case not the monthly but the hourly wage was chosen as the dependent variable in order to be able to control for working-time effects. As we are interested primarily in differences in education and training, we include the different qualification levels as independent variables, and age and gender as control variables. We therefore estimate a classic Mincer-type earnings function. In accordance with this standard approach the dependent variable is in logs.

The model is

$$\ln W_i = \beta_0 + \beta_j^B B_{ij} + \beta_z^X X_{iz} + \varepsilon_i$$

where W is the wage level, B represents dummy variables for the education level, X stands for further control variables, the β are the coefficients (incl. the regression constant), i is the index for individual people, and ε is the usual error term. The semilogarithmic form results in a shift from an additive to a multiplicative model. It is assumed that the causal process on the labour market and beyond has a multiplicative effect, i.e. is reflected in percentage differences.

Each coefficient in Tables 6 and 7 is to be so interpreted that the income rises approximately by the given value when the relevant independent variable changes by one unit. In the semilogarithmic approach used here the result (for small βx) is approximately the percentage effect of a coefficient β of a variable x . The coefficient of the categorical variable “woman” therefore indicates that in the model for the formal sector (1999) a woman earns about 16% less than a man (see line 4, column 1 in Table 6). This difference is far greater in the informal sector, where the corresponding value is 28%. In the corresponding analysis for 2005 the difference in the informal sector decreases slightly to 24%, whereas a slight increase can be found in the formal sector. These differences materialise when the other included variables, which are assumed to be constant, are controlled for. The effects are significant, as can be seen from the star markings in the tables.

The effects of general school education on income are given in relation to the level “primary school” only. Tables 6 and 7 show the surprising result that although people who have completed their schooling earn more, this result is not significant anywhere. It is therefore not possible to ascertain whether it occurs randomly. The group in question is hardly a tiny minority: 26.8% of the labour force have not completed secondary education.

The effects of vocational training on income are shown in relation to the level “no vocational training” and no higher qualifications. In order to achieve a uniform modelling, the variables of 2005 were recoded so that they correspond to the scale of 1999. These analyses are intended to answer an important question: is training worthwhile in Vietnam? Or conversely, is it worthwhile for the state to provide training courses?

Friedman (2004) has already investigated related questions and his results are therefore comparable with ours. He has at his disposal data about production workers in Ho Chi Minh City and the surrounding area. On the basis of this data (a linked employer-employee data set from 1999) he comes to the conclusion that a “compressed wage structure” can be ascertained in the Vietnamese state-owned enterprises. He claims that the state-owned enterprises pay their employees above all according to age and less according to qualification levels. In Vietnamese private enterprises and joint ventures he finds the wage structure to be completely different; there, better

TABLE 6: Regression analyses for the year 1999

Dependent variable: logarithm of hourly wages	Formal sector			Informal sector			Employees in private enterprises	State administration	State- owned enterprises
	All N: 1560 R ² = 0.21	Private		All N: 1259 R ² = 0.10	Employees				
		State N: 1477 R ² = 0.23	State N: 83 R ² = 0.17		All N: 318 R ² = 0.31	Employees N: 401 R ² = 0.22			
Constant	0.7**	0.50	0.50	0.65*	0.49	0.24	0.17	0.69	
Age	0.04***	0.04***	0.04***	0.08***	0.08***	0.09***	0.04**	0.04**	
Age squared	-0.0003**	-0.0003**	-0.0003**	-0.001***	-0.001***	-0.001***	-0.0004*	-0.0003	
Woman	-0.16***	-0.17***	-0.17***	-0.28***	-0.37***	-0.27***	-0.12**	-0.20***	
Primary school (reference category)									
Primary school qualification	0.39	0.50	0.50	-0.02	-0.06	0.03		0.39	
Lower secondary school qualification	0.35	0.47	0.47	0.04	0.20	0.08	0.74	0.37	
Upper secondary school qualification	0.38	0.50	0.50	0.10	-0.07	0.04	0.80	0.38	
No vocational training (reference category)									
Lowest vocational training	0.06	0.08	0.08	0.002-	0.32*	0.18	0.02	0.11	
Vocational school – incomplete	0.13	0.02	0.02	0.06	0.13*	0.13*	0.04	-0.06	
Vocational school – completed	0.11	0.13*	0.13*	0.19**	0.42***	0.35***	0.29**	0.07	
Higher vocational school	0.13**	0.15***	0.15***	0.85	0.17	0.23*	0.14*	0.15*	
Polytechnic, university, other institution of higher education	0.32***	0.34***	0.34***	0.37**	0.37	0.60***	0.38***	0.31***	
Master's degree, doctorate	0.54***	0.56***	0.56***				0.75***	0.42***	
Other qualification	1.06***	1.08***	1.08***					1.08***	

Results for private enterprises in the formal sector can not be interpreted due to low case numbers
 * significant at the 5 % level, ** significant at the 1 % level, *** significant at the 0.1 % level
 Source: Own calculations using the data from the labour market surveys conducted in Vmnh in 1999

qualifications pay off. Friedman claims that the workers in the state-owned enterprises are offered inefficiently low incentives for their performance and the acquisition of qualifications. Since in other socialist countries the state-owned enterprises changed their compressed wage structures when they switched to a market economy in the early 1990s (cf. Munich, Svejnar, Terrell 2005 for the Czech economy), Vietnam is an atypical case in this respect according to Friedman. He claims that the transformation at enterprise level is proceeding with some delay.

Our results (using a larger survey than was available to Friedman) show a differentiated picture, however. In 1999 it is indeed possible to speak of a compressed wage structure in the state-owned enterprises. In fact the wage effects of the different education and training levels in the state-owned enterprises (last column of Table 6) are without exception smaller than those for employees in the private enterprises of the formal and informal sectors (third column from last).

Table 7 shows, however, that by 2005 the difference had decreased. Only the education/training level of the lowest category, which includes courses at employment service centres lasting several months, seems to be remunerated above all in the private enterprises and to be uninteresting for the state-owned enterprises. At any rate a technical qualification, for example, means 24% more wages in private enterprises but only 15% more in the state-owned enterprises.

Other employment categories again have different remuneration patterns. Surprisingly, a higher vocational qualification is remunerated even better in the national administration than in the private sector. This is different in the informal economy. If this sector is taken as a whole, i.e. including the self-employed, then relatively erratic structures come to light. This is not surprising, however, as the success of self-employment is influenced by many other factors (not least by capital endowment) and is not so closely associated with the education and training level as is the case with employees.

When examining the R^2 values of the individual analyses, it becomes clear that they are lower than in comparable studies of western countries. Only a relatively small part of the dispersion of the dependent variables can be “explained” (in the statistical sense) by means of the models. But this is unsurprising in the case of a country going through such a dynamic development process as Vietnam. The labour market is still far from any kind of equilibrium. At any rate the R^2 values increase from 1999 to 2005 in all the analyses

TABLE 7: Regression analyses for the year 2005

Dependent variable: logarithm of hourly wages	Formal sector			Informal sector		Employees in private enterprises N: 512 R ² = 0.24	State administration N: 734 R ² = 0.38	State- owned enterprises N: 1028 R ² = 0.27
	All N: 1901 R ² = 0.33	Private		All N: 1323 R ² = 0.15	Employees N: 373 R ² = 0.23			
		State N: 1762 R ² = 0.31	State N: 1762 R ² = 0.31					
Constant	1.66***	2.8***	1.67***	1.32***	1.33***	1.72***	1.4***	1.94***
Age	0.05***	-0.18	0.05***	0.07***	0.06**	0.040	0.07***	0.03**
Age squared	-0.0003**	0.0005	-0.0004***	-0.0007***	-0.0006*	-0.0003	-0.006***	-0.002
Women	-0.18***	-0.32**	-0.17***	-0.24***	-0.28**	0.28***	-0.16***	-0.19***
Primary school (reference category)								
Primary school qualification	-0.18	-0.11	-0.02	-0.18	-0.12	-0.14	0.36	-0.015
Lower secondary school qualification	-0.12	-0.33	-0.09	-0.03	0.06	-0.0007	-0.57	0.07
Upper secondary school qualification	0.03	-0.03	0.04	0.05	0.05	0.06	-0.22	0.14
No vocational training (reference category)								
Lowest vocational training	0.11*	0.27	0.07	0.120	0.25**	0.27***	0.29**	0.025
Vocational school – incomplete	-0.03	-0.06	-0.05	0.20**	0.04	0.02	-0.03	-0.014
Vocational school – completed	0.15***	0.012	0.14**	0.120	0.34***	0.24***	0.23*	0.15**
Higher vocational school	0.27***	0.37*	0.23***	0.68***	0.030	0.23**	0.29***	0.22***
Polytechnic, university, other institutions of higher education	0.45***	0.41**	0.44***		0.47***	0.50***	0.44***	0.46***
Master's degree, doctorate	0.64***	0.35	0.62***	0.16	-0.39	0.42	0.60***	0.63***
Other qualification						-0.44		

* significant at the 5 % level, ** significant at the 1 % level, *** significant at the 0.1 % level
Source: Own calculations using the data from the labour market survey conducted in Vinh in 2005

apart from one. The labour market is therefore gradually settling down and becoming less chaotic.¹

In sum, general education at schools does not pay off in the form of higher incomes. This is different, however, in the case of vocational training, which leads without exception to higher incomes. A wage compression in state-owned enterprises can be determined in particular for 1999 but is far less pronounced in 2005.

The higher incomes for people with vocational qualifications show how important this form of education is for Vietnam. Especially the private enterprises would hardly pay higher wages if they did not expect productive returns. Our findings support the diagnosis sometimes made that investment in vocational training is important for the further development of the country and that it represents the necessary complement to the general educational level of the Vietnamese population, which is high for a development country (Blien, von Hauff, Phan 2005).

3.6 Occurrence of absolute poverty

Table 8 shows the number of households whose monthly income per capita is below three defined poverty thresholds. The two lowest ones, US\$ 7.6 and US\$ 10 respectively, were taken as a basis by Vietnamese official bodies in 1999 (source: MOLISA). These were revised recently and now stand at US\$ 10 and US\$ 16. The lowest limit of just US\$ 7.60 indicated the threshold below which not even the physiological minimum of food can be obtained via the market. Someone whose income is below this limit cannot purchase enough food to survive without health damage.

The two other thresholds also take into consideration other elementary needs besides food. They are, however, still absolute poverty thresholds. In Vinh City, however, there is probably an above-average price level, especially compared with rural areas, which still dominate in Vietnam. For this reason it is better to take the upper threshold as the basis.

¹ Another interpretation of the relatively low R^2 could be ruled out. In this view the low proportion of variance 'explained' by the model is due to poor data quality. 'Noise' in the data interfere with the assumed connection between exogenous and response variables. To assess the quality of our data, analyses with other data sources can be used as a comparison. In this respect Gallup's (2004) wage analyses based on the Vietnamese Living Standards Surveys of 1993 and 1998 are helpful. In fact his R^2 's are lower than those reported here. Gallup's data base includes the whole country, thus giving more space to the variation in the exogenous variables. Therefore, the relatively high R^2 's in the analyses obtained with the data from Vinh City indicate a relatively good data quality.

TABLE 8: Number of households below defined poverty thresholds

	2005			1999				
	Only earned income		All sources of income	Only earned income		All sources of income		
	No.	%	No.	%	No.	%		
With a monthly income below US\$ 7.6 per head	49	2.23	12	0.55	31	1.41	20	0.91
With a monthly income below US\$ 10 per head	62	2.83	18	0.82	185	8.42	128	5.83
Income below US\$ 16 per month (according to new poverty threshold)	191	8.71	106	4.83	374	17.02	308	14.02

Source: Own calculations using the data from the labour market surveys conducted in Vinh in 1999 and 2005

In 1999 at least 4.5% (2005: 0.67%) of the employees in the formal sector and 10.2% (2005: 0.67%) of the self-employed in the informal sector earned an income below the threshold of US\$ 10. Their earnings were so low that they were not able to live on them alone. In this sense they were underemployed. The higher value for the informal sector shows that far greater income differentials occur here than in the formal sector. Here the risk of earning only a low income is far greater, especially for women, than in the formal sector.

Whether a low income really results in poverty is decided by the household context. Table 8 shows the number of households with a per capita income below the poverty line. If only the earned income is taken into account, some 8.4% of the households have to be regarded as living in absolute poverty in 1999. They live in danger of hunger and misery. If other sources of income such as pensions, support from friends, relatives etc. are included, the proportion falls to 5.8%. The occurrence of such absolute poverty is a very serious problem.

If the higher poverty threshold of US\$ 16 is taken as a basis for 2005, then the proportions of households below this threshold are 8.7% and 4.8% respectively. It can be ascertained from the table that regional economic development is also benefiting the poor. Comparing 1999 and 2005 their proportion decreases significantly.

However, such poverty analyses have their limits, since the sample is only representative of the population registered in Vinh. Anyone living in the city illegally is not recorded. Here a poverty potential could exist which is not included in the data.

4. Conclusion: The prospects for Vietnam

The analyses contained in this paper confirm the value of the data collected. The study design permits cross-validation by comparing the results of the two waves and the individual variables in the two cross-sections. It can be seen here that the strategy pursued of collecting data about the labour market and the informal sector in a particularly differentiated and refined way has proved to be worthwhile in the case of Vietnam.

Due to their quality the data can be of use for diverse applications, both in research and policy. One possible example is the model calculation for the funding of unemployment benefit. Since the data are very reliable and very detailed they facilitate the necessary calculations.

Further interesting conclusions concern education and training. The wage analyses show that the returns on investment in education and training

are generally greater in private enterprises than in state-owned enterprises. This points to the effectiveness of the investments. The finding supports the conjecture that an expansion of vocational training is reinforcing the development process in Vietnam.

Beyond the practical use of the analyses, their scientific value should be measured in the light of the fact that there are not many reliable sources of data about Vietnam. The surveys conducted were used by Vietnamese social research as a key input for further work. According to information from ILSSA (the research institute of the Labour Ministry) the questionnaires were used to improve the design of other surveys including even the global Labour Force Survey.

In particular the longitudinal perspective seems to be important for understanding the Vietnamese economy and labour market. The comparison of the results for 1999 with those for 2005 provides important information about the path the regional economy has followed. It indicates that the growth rates reported officially may be understated, as has been conjectured by international experts. This might be due to underreporting the informal sector or due to general statistical problems in a developing economy. The high growth rates shown in the study, not only of labour income but of the economy in general, are giving rise to the hope that Vietnam has a “bright future” ahead of it. Average incomes are still low, but they are improving quite rapidly. The poor population gains from the development process. The relatively slow pace of this improvement is due to the low level of the incomes of the really poor. Even considerable percentage gains are only small improvements. Therefore, it is not a contradiction that Vietnam is developing fast but poverty is vanishing relatively slowly.

This fast development process (which makes Vietnam more similar to other South East Asian countries, see Revilla Diez, Kiese 2006), visible from Vietnamese official statistics and even more transparent in the Vinh data, can be explained by different factors, which are analysed in more detail else-where (Phan thi Hong Van 2009). Apart from the importance of institutional reforms, these factors can be categorised as “objective” elements of the situation and as elements of the national culture. Into the first category fall international monetary transfers in the form of foreign investments. Equally important, but of a more “basic nature” is the high average qualification level of the Vietnamese population, which supports the location of many different branches of production in this country. As regards culture, there are a number of important aspects. Vietnamese people often have a long time horizon, they are inclined to invest in activities intended to secure the future of their own families. For this aim they work hard. The high regard of education is due to the Confucian tradition of the country. All these

elements contribute to perspectives which were regarded as very bright until recently.

The current turbulences in the world market are endangering these prospects. In the past, the Vietnamese economy proved to be stronger than the dangers threatening the region as a whole, e.g. during the Asian Crisis. But the ability to withstand them is diminishing due to the advancing integration of the country into the world market. This integration facilitates high growth rates which could be obtained only with the support of international investors in Vietnam. However, all the dangers of fluctuating markets are imported into an economy which is still small and not very competitive compared to other countries. The decisions of speculators anywhere in the world might affect Vietnam's economy in one way or another. It is still true that Vietnam's development is balanced on a knife-edge.

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