VIETNAM’S RESPONSES TO PROVINCIAL ECONOMIC DISPARITIES THROUGH CENTRAL-PROVINCIAL GOVERNMENT FINANCIAL RELATIONS

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ABSTRACT: The paper examines key changes in central-provincial government financial arrangements and their effects on provincial economic disparities in Vietnam over the period 2000-2008. We find that after 2004 transfers from the central to provincial governments conformed much more closely to objective and pre-determined criteria than before. Econometric estimations indicate that in the post-2004 sub-period, poorer provinces obtained more-than-proportionate assistance from the central government, and the favourable treatment was statistically significant. Responses from interviews and statistical data suggest that transfers from the central government played an important role in reducing poverty and provincial output disparities after 2004. The difficulties experienced by the central government in securing adequate
resources to finance such transfers, the over-reliance of some provinces on the transfers, and related policy implications are also discussed in the paper.

1. INTRODUCTION

In a recent study of economic disparities across the provinces of Vietnam, Vu, et al. (2011) found that although provincial levels of output per capita diverged over the study period 1990-2008, the trend was reversed around 2004 (for more details, see Figure 1 below). These authors also offered a number of possible explanations for this trend reversal, one of which was the increased role of central-provincial government financial relations in response to the above disparities. This paper further develops this theme by examining more closely financial arrangements between central and provincial levels of government in Vietnam before and after 2004, and by analysing the role of transfers from the central to provincial governments in helping to reduce poverty and provincial output disparities. More specifically, the focus is on the following research questions:

(a) How did key features of the central-provincial government financial relations in Vietnam change after 2004?
(b) How important were transfers from the central government in helping to reduce poverty and provincial output disparities?
(c) What have been the main issues in implementing the central-provincial government financial relations to address provincial output disparities?

INSERT FIGURE 1 ABOUT HERE

In order to answer the above questions, both qualitative and quantitative methods are employed including in-depth interviews, analysis of available official documents, and econometric analyses. The paper’s main contributions lie in the use of and interpretation of recent data, as well as in the analysis of the interviews and synthesis of findings therefrom. The paper is organised as follows. Section 2 presents a brief review of a number of relevant previous studies of government responses to regional output and/or income disparities and poverty, and some background information regarding Vietnam’s geography. Section 3 outlines the research methods, while Section 4 describes data sources. Section 5 discusses the findings and Section 6 provides a summary of the main points raised.
2. RELEVANT PREVIOUS STUDIES

In a recent report, the World Bank (2009) argued that, if appropriately designed and implemented, policies intended to reduce inequalities between poor and rich regions in a given country may benefit not only the poorer regions but the richer ones as well. The report differentiated between policies involving universal institutions (spatially blind policies), infrastructure (spatially connective policies), and incentives (spatially focused policies). Institutions-based policies consist of such national polices as income tax systems, education, and health care. Infrastructure polices involve investments connecting places, such as interregional highways and railroads, and information and communication technologies and telecommunications networks. Incentive policies comprise spatially targeted measures to stimulate economic growth in poor areas, such as investment subsidies, tax rebates, local infrastructure development, and special regulations for export processing zones. Where there are few obstacles to labour and capital mobility, spatially connective initiatives can be particularly useful in reducing disparities. By contrast, in countries fragmented by linguistic, religious, or ethnic divisions, spatially targeted interventions may be an appropriate method to address these disparities. In this scheme of classification, national inter-governmental financial relations are part of the institutions-based policies.

As highlighted in Table 1 findings from previous studies of the impact of inter-governmental transfers on inter-regional disparities have been mixed. Kaufman, Swagel and Dunaway (2003) found that equalization transfers from the federal government in Canada stimulated provincial output convergence and reduced disparities across provinces during the period 1961-2000. Similarly, Rodriguez (2006) reported that inter-provincial transfers played a vital role in accelerating the convergence process for Canadian provinces during the period 1926-1999. Akai and Hosio (2009) found that fiscal decentralization in the USA gave low-income counties greater autonomy and contributed to decreased inter-county inequality. In contrast, Garcia-Milà and McGuire (2001) found that inter-regional transfers in Spain were not effective in improving the economic performance of poor regions, but concluded that the transfers were not sufficiently large to achieve the desired improvement.

INSERT TABLE 1 ABOUT HERE
More generally, Lessmann’s (2006) cross-section analysis of data for 17 OECD countries during the period 1980-2001 indicated that central government grants played an important role in helping poorer regions to catch up with richer ones. In a subsequent study, however, Kessler & Lessmann (2008) applied panel-data techniques to data from 23 OECD countries for the period 1982-2000 and found that countries with higher levels of redistributive governmental transfers actually experienced greater inter-regional divergence: the equalisation payments tended to mitigate migration from poorer to richer regions and therefore hindered the convergence process.

Findings from studies undertaken for China (which, like Vietnam, has been in a transition from the central planning system to a market economy) are of special relevance to the present study. Raiser (1998) argued that the rate of convergence in income per capita across the provinces of China decreased after 1985 because the inter-provincial fiscal transfer mechanism then tended to favour the richer provinces. After a reform of the tax system in 1994, however, Jiang and Zhao (2003) found that such transfer payments played an important role in reducing regional disparities during the period 1995-2000. Dabla-Norris (2005) argued that several major issues in intergovernmental fiscal relations remained after 1994, and in particular that revenue-sharing arrangements should be further adjusted in favour of the poorer provinces.

More recently, Yao (2009) studied government responses to inter-regional disparities through major programs such as “Go West”, “Reviving the Northeast”, and “Central Rising” which focused on infrastructure building, social development through education and public health, and the like, but offered little new information on intergovernmental fiscal relations. Similarly, Chen and Groenewold (2010) concentrated on policies designed to reduce disparities between manufacturing-intensive and agriculture-intensive provinces through productivity improvements in agriculture, with little discussion of intergovernmental transfers.

There are relatively few empirical studies of government responses to poverty and regional income disparities in Vietnam. Bird, Litvack and Rao (1995) examined data from the Vietnam Living Standards Survey (VLSS) 1992-1993 and found that pro-poor services were underfunded, especially in the poorer areas: they argued that well-designed intergovernmental transfers could play an important role in generating additional revenues for poorer provinces. In the same vein, Rao, Bird and
Litvack (1998), suggested that one of the reasons for the high poverty rates observed in rural areas was a severe shortage of resources at the provincial level and an allocation system that favoured richer provinces rather than poorer ones. Martinez-Vazquez and Gomez (2005) briefly described revenue assignments, expenditure assignments, inter-governmental transfer mechanism, and borrowing of local governments pursuant to the 2002 State Budget Law, but did not analyse the role of subsidies from the central government in helping to reduce poverty and provincial output disparities. Bjornestad (2009) examined cross-sectional data for 2002, 2004, and 2006 and found that fiscal transfers per capita from the central to provincial governments were positively correlated with provincial poverty rates. More recently, Nguyen and Anwar (2011) argued that inter-governmental transfers had a negative effect on provincial economic growth during the period 2002-2007. However, this finding should be interpreted with caution, as the cited period includes a possible structural break in 2004, when the 2002 State Budget Law came into effect.

3. BACKGROUND TO THE VIETNAMESE CASE

Lying on the eastern part of the Indochinese peninsula, Vietnam is a strip of land shaped like the letter “S”, with an area of approximately 331,000 km$^2$ and a population of nearly 87.8 million$^1$. The country borders China to the north, Laos and Cambodia to the west, the East Sea to the east and the Pacific Ocean to the east and south. The country’s total length from north to south is about 1,650 kilometres with a coastline of around 3,260 kilometres and an inland border of roughly 4,510 kilometres. In administrative terms Vietnam is divided into 64 provinces (see Figure 2). These provinces are frequently grouped into eight regions: the North West, North East, Red River Delta, North Central Coast, South Central Coast, Central Highlands, South East, and Mekong River Delta regions (Figure 3). For the present purposes, it is useful to classify the 64 provinces into four groups (richer, average, poorer, and remote and poor) based on their respective levels of Gross Domestic Product (GDP) per capita in 2008 and (in the case of the last group) their locations (Figure 4).

INSERT FIGURES 2-4 ABOUT HERE

$^1$ Source: the GSO (2011).
4. METHODS AND MODELS

This paper uses a range of qualitative and quantitative analytical methods. Firstly, content analysis is applied to official documents, such as the State Budget Laws, government’s papers, World Bank’s reports, and previous studies to gain a systematic understanding of the key changes in Vietnam’s central-provincial government financial arrangements. Secondly, information from in-depth interviews is synthesised and cross-checked with statistical data to ascertain the role of inter-governmental transfers in helping to reduce poverty and provincial output disparities. Responses from interviewees are also employed to analyse the main issues that have arisen in implementing inter-governmental financial relations, with cross-checking through content analysis of documents and statistical analysis of available data. Thirdly, econometric regressions are employed to investigate patterns and trends in transfers from the central to provincial governments.

Specifically, the regressions portray a relationship whereby net transfers received by each province are expected to depend negatively on its GDP per capita level, as follows:

\[
NTPC_{i,t} = a_i + h_1 * RGDPPC_{i,t-2} + h_2 * \text{Dremote}_i + \epsilon_{i,t}
\]  

\[
NTPC_{i,t} = 100 \times \frac{(C_{i,t} - B_{i,t})}{P_{i,t}} \times \frac{P_{i,t}}{\text{GDPPerCapVN}_{t}}
\]  

\[
RGDPPC_{i,t-2} = \left(100 \times \frac{\text{GDPPerCap}_{i,t-2}}{\text{GDPPerCapVN}_{t-2}}\right)
\]

where \(NTPC_{i,t}\) is the real net transfers per capita received by province \(i\) in year \(t\), de-scaled by being expressed as a percentage of the real national GDP per capita in the same year; \(RGDPPC_{i,t-2}\) is the real GDP per capita of province \(i\) in year \(t-2\), similarly de-scaled; \(C_{i,t}\) are real transfers from the central government to province \(i\) in year \(t\); \(B_{i,t}\) is real sharable revenue which was transferred to the central government by province \(i\) in year \(t\); \(P_{i,t}\) is population of province \(i\) in year \(t\); \(\text{GDPPerCapVN}_t\) is the real national GDP per capita of Vietnam in year \(t\); and \(\text{GDPPerCap}_{i,t-2}\) is the real GDP per capita of province \(i\) in year \(t-2\).
The reason for choosing a two-year lag \((t-2)\) for \(GDP_{PerCap,i,t-2}\) is that according to the 2002 State Budget Law, provincial budget estimates (including transfers from the central government for the next financial year) are normally determined from October to December in the current financial year and based on the main provincial characteristics such as provincial terrain and level of development in the previous fiscal year. For robustness, a one-year lag \((t-1)\) is also used in equation (1); as we shall see, however, the results are quite similar to those obtained with a two-year lag \((t-2)\) (see Table 3 below).

The dummy variable \(D_{remote}\) is used because some remote provinces are characterised by not only low income levels, but also remoteness from major economic/commercial centres and high concentrations of ethnic minorities: transfers from the central government to these provinces tend to be far higher than to other provinces. \(D_{remote} = 1\) if province \(i\) is a very remote and mountainous province, zero if otherwise.

After equation (1) is estimated by Ordinary Least Squares (OLS) on a cross-sectional basis, tests for normality and for heteroscedasticity of the residuals are conducted. Both null hypotheses (normality and homoscedasticity) are rejected for each of the years studied (2000 - 2008). Therefore, robust standard errors and \(t\)-statistics (White, 1980) are used.

In recognition of the fact that the current State Budget Law came into effect in 2004, the standard Chow test (1960) is used to test for a possible structural break around 2004 in the series of weighted coefficient of variation \((CV_w)\) of provincial transfers per capita. The equation used to test for a break year is \(CV_w = a + b*t + \varepsilon\) where \(t\) is the relevant year, with \(CV_w\) being computed as:

\[
CV_w = \frac{\sqrt{\sum_i (s_i - \bar{s})^2 \frac{p_i}{P}}}{S}
\]

where \(s_i\) is the transfer per capita of province \(i\); \(\bar{s}\) is the national mean per capita transfer; \(P\) is the national population; and \(p_i\) is the population of province \(i\). The Chow test results indicate that there was a break of the \(CV_w\) of provincial transfers per capita in 2004, with the F-statistic \((2,5) = 10.31\) compared with the F-critical \((2,5)\) value of 5.79 (at the 5% significance level). Our content analysis of official documents and feedback from interviews also suggest a break date of 2004 (see below).
Accordingly, the study period is divided into two sub-periods: 2000-2003 and 2004-2008. Utilising the knowledge of the above structural break and making the most of the availability of panel data, the following panel-data regression model is used:

\[ NTPC_{i,t} = a_1 + b_1 \times RGDPPC_{i,t-2} + c_1 \times D_{remote} + a_2 \times D_{break\ 2004} + b_2 \times D_{remote} \times D_{break\ 2004} + b_3 \times D_{break\ 2004} \times RGDPPC_{i,t-2} + \varepsilon_{it} \]  

(4)

where \( NTPC_{i,t} \), \( RGDPPC_{i,t-2} \), and \( D_{remote} \) are as defined above, and \( D_{break\ 2004} \) is equal to one during the sub-period 2004-2008, and zero during the sub-period 2000-2003.

5. DATA SOURCES AND INTERVIEWS

The data used include real GDP per capita and real net transfers per capita at 1994 prices for 64 provinces of Vietnam. Data for GDP, population, public investment at the provincial level are available from the General Statistics Office (GSO), provincial websites and various Year Books. In addition, yearly data for subsidies from the central to provincial budgets were collected from the Ministry of Finance (MOF). As three of the 64 provinces, namely Dien Bien, Dak Nong, and Hau Giang were established only in 2004, their data have been combined with data for Lai Chau, Dak Lak, and Can Tho to represent the composite entities Lai Chau – Dien Bien, Dak Nong – Dak Lak, and Can Tho – Hau Giang, respectively, for the nine-year study period, 2000-2008.

Interviews were conducted with four central officials of the MOF and 15 provincial officials of the Department of Finance of 15 provinces, namely Hoa Binh, Bac Giang, Hai Duong, Cao Bang, Lao Cai, Lang Son, Phu Tho, Hanoi, Thanh Hoa, Quang Ngai, Quang Nam, Kon Tum, Ho Chi Minh City, and Dong Nai. The reason for choosing central officials of the MOF is that the MOF plays an important role in implementing central and provincial government financial arrangements. The provincial officials were selected on the basis that their provinces were not only representative of the seven geographical regions of Vietnam but also representative of the three groups of rich, average, and poor provinces in terms of per capita GDP and level of subsidy from the central government. The poor group included Hoa Binh in the North West region, Cao Bang, Lao Cai, Bac Kan, Lang Son, Phu Tho, and Bac Giang in the North East, and Kon Tum in the Central Highland regions. The
average group comprised Hai Duong in the Red River Delta region, Thanh Hoa in the North Central Coast, and Quang Ngai and Quang Nam in the South Central Coast regions. The rich group consisted of Hanoi in the Red River Delta region and Ho Chi Minh City and Dong Nai in the South East region (for more details, see Figure 2).

6. MAIN FINDINGS

Main features of central-provincial government financial relations

Before 1996, central-provincial government financial arrangements in Vietnam were governed by a series of government Decrees and Resolutions. During the period 1997-2003, the arrangements were regulated by the first State Budget Law in 1996 and the amended 1998 State Budget Law. The current arrangements have been implemented by the 2002 State Budget Law which was put into effect in 2004. This section will analyse the major features of the arrangements based on the development of the regulations.

Before 1996

Central-provincial government financial arrangements in Vietnam were governed by a series of government Decrees and Resolutions including Decree 75/1945/SL-CTN, Decree 119/1967/ND-CP, Resolution 186/1989/NQ-HDBT, and Decision 168/1992/QD-HDBT. Overall, under the Resolution 186/1989/NQ-HDBT and the Decision 168/1992/QD-HDBT, budget revenue arrangements between central and provincial governments were determined annually by their negotiations (Bird, Litvack, and Rao, 1995). Expenditures for development investment by provinces were also decided by negotiation and bargaining with the central government. Budgetary recurrent expenditure arrangements between central and local governments were, however, based yearly on norms specified for each item of expenditure including education, training, health, sports, administration, and culture and information, with arrangements finally decided after two or three rounds of negotiations. In most cases, population was the main factor taken into account when recurrent expenditures were determined; however, weights assigned to population tended to favour cities. For instance, the standardised norms for 1994 required that the budgetary distribution norms in education and health in cities were about 1.40 times and 1.12 times higher than those in plain areas and low mountainous and remote areas, respectively (Bird,
Litvack, and Rao, 1995). The transfer mechanism from central to local governments was not explicit and there were no budgetary distribution norms for determining the transfers from central to local governments. Therefore, the amount of the transfers was determined yearly based on negotiations and bargaining between central and local governments. In addition, the central authorities were responsible for determining the tax base and tax rates of all major taxes (Bird, Litvack, and Rao, 1995).

From 1996 to 2003

Although budget arrangements between central and local governments under the 1996 State Budget Law and the amendment in 1998 were much improved compared with the previous regulations, shortcomings still existed.

Firstly, sub-national governments tended to overstate their revenue needs; therefore, negotiations between central and local governments in setting up the expenditure budget still occurred (McLure and Martinez-Vazquez (1998); Rao, Bird, and Litvack (1998)). In addition, the negotiated approach to budget formulation tended to favour richer provincial governments which had more influence on the central government, and therefore, led to an element of opaqueness, arbitrariness, and subjectivity (Rao, 2000).

Secondly, provincial governments tended to understate their revenue potential when they submitted their revenue budget proposals to the Ministry of Finance (MOF). Therefore, the final budget proposal approved by the MOF for each province was the result of several rounds of negotiations between provincial authorities and the MOF and depended on the negotiating strength of the two parties, including the political power of particular provincial authorities. For that reason, the approach was, once again, not a transparent and certain system (McLure and Martinez-Vazquez, 1998).

Thirdly, although the transfer mechanism under the 1996 State Budget Law was determined on a formula-based general transfer for each province, specific-purpose transfers were insufficient and too fragmented (McLure and Martinez-Vazquez, 1998). As a result, the amount of transfers was heavily influenced by negotiations and bargaining between central and local governments.

Fourthly, local governments still lacked borrowing powers to get additional resources (Rao, 2000). They also lacked revenue-raising powers because the central government was mainly responsible for determining the tax base and the rate structure of all taxes (Rao, Bird,
and Litvack (1998) and McLure and Martinez-Vazquez (1998)). Local governments were only given powers to raise revenues from fees, tolls, and voluntary contributions from their communities; however, these resources were very small and accounted for less than five percent of their total expenditures even though they tended to make intensive use of their taxing powers (Rao, 2000).

After 2004

Under the 2002 State Budget Law, revenue arrangements indicate explicitly which sources of revenue can be collected 100% by the central or by the provincial governments, and which sources of revenue can be shared between them. A substantial change in revenue assignments, as stipulated in the 2002 State Budget Law compared with those indicated in the 1996 State Budget Law was that such assignments are only between the central and provincial governments. Provinces now have responsibility to set revenue assignments for the districts and communes in their territories. Therefore, the revenue assignments between provincial and local governments may provide provincial governments with budget flexibility, the ability to adapt to the particular circumstances in the province, and could generate high levels of equalization (Martinez-Vazquez, 2004).

Expenditure arrangements between the central and provincial governments continue to be determined based on norms. However, provincial recurrent expenditures have been determined by clearer norms since 2004 as indicated in Decision 139/2003/QĐ-TTg, Decision 151/2006/QĐ-TTg, and Decision 59/2010/QĐ-TTg. Since 2007, norms applied when determining the capital expenditures of provinces have also been stipulated in Decision 210/2006/QĐ-TTg and Decision 60/2010/QĐ-TTg. An interesting note is that a majority of these norms are much more favourable to poorer provinces (for more details, see Section 5.2). Similar to the case of revenue assignments, expenditure assignments are now only assigned for the central and provincial governments. Provincial governments have authority to specify expenditure assignments for their lower level of governments, enabling them to assign budget expenditure tasks to their lower authorities in accordance with their varying specific needs.

Under the clearer budget distribution norms associated with the 2002 State Budget Law, the current sharing system represents a considerable improvement compared with the one arising under the 1996 State Budget Law. Moreover, the sharing rates are decided for each particular province
and the current sharing system tends to leave 100 percent of the sharable taxes for poorer provinces. This may encourage provinces to make increased efforts to raise revenues, especially as poorer provinces understand that they are usually allowed to keep 100 percent of the shared taxes. However, a notable point is that under the 2002 State Budget Law, the central government is still fully responsible for introducing taxes, changing the structure of existing taxes, and fixing tax rates. Local governments are only allowed to introduce tolls for roads and certain fees for schools and hospitals that contribute insignificantly to their budgets (Maztinez-Vazquez (2004) and Bjornestad (2009)).

According to the World Bank (2005, volume I), another improvement was the use of fixed transfers during the budget stability period because fixed transfers help control negative incentives to revenue mobilisation by provincial governments and provide more certainty and stability. However, although progress has been made by the introduction of per capita expenditure norms to reasonably account for the relative expenditure needs at the central and provincial level, old physical standards or norms (such as number of staff in the measurement of expenditure needs) are still used by many provinces for allocation of resources to sub-national entities such as districts and communes. This leads to negative incentives in expenditure decisions, such as storing up of excess staffing capacity.

The 2002 State Budget Law and Circular 59/2003/TT-BTC provided that provinces be further allowed to mobilise domestic investment to obtain additional resources for their infrastructure development projects. The domestic sources of investment which provinces could mobilise included investment bonds issued by provincial governments and invested capital advanced from provincial Treasuries. In addition, provinces were allowed to borrow capital from the Vietnam Development Assistance Fund (VDAF)\(^2\) and the Vietnam Development Bank (VDB)\(^3\). These bodies are permitted to establish development investment funds (as stipulated in Decree 138/2007/ND-CP) and land development funds (as specified in Decree 69/2009/ND-CP and Decision 40/2010/QĐ-TTg).

\(^2\) VDAF was established according to Decree 50/1999/ND-CP.

\(^3\) VDB was formed according to Decision 108/2006/QĐ-TTg based on VDAF.
Officials’ assessment of effectiveness of transfers from central government

Sixteen out of nineteen officials interviewed indicated that the role of transfers from the central government in reducing poverty and provincial output disparities were *somewhat* effective before 2004. Only one interviewee felt that the transfers were *effective*, one interviewee indicated that the transfers had *no* impact and one interviewee gave no rating about effectiveness of the transfers (for more details, see Table 2).

An examination of the reasons resulting in the lower effectiveness ratings indicates that the “*ask and give*” mechanism still applied in the central and provincial government financial arrangements before the 2002 State Budget Law was put into effect in 2004. This means that the more transfers provinces could ask for and succeeded in receiving, the more expenditure they were able to make. They said that “the MOF and provincial Departments of Finance saw many local officials at the end of the years during the period 1996-2003 because the officials visited and asked the Ministry and the Departments for transfers for their next fiscal year”.

**INSERT TABLE 2 ABOUT HERE**

Fifteen out of nineteen interviewees indicated that transfers from the central government to the poorer provinces played an *effective* role in reducing poverty and provincial output disparities after 2004. Only four interviewees indicated that the transfers played an *insignificant* role in reducing poverty and output inequality between provinces (for more details, see Table 2).

The higher effectiveness ratings were caused by the transfer mechanism from the central to provincial budgets being implemented on clearer norms. More importantly, the norms have been much more systematic and favourable to poorer provinces. For example, Decision 139/2003/QĐ-TTg required that the use of the number of school aged children to determine the distribution norm for education rather than the number of children enrolled in schools. This regulation benefited poor provinces because the number of children enrolled in schools in poorer provinces was usually proportionally lower than those in richer provinces. In addition, Decision 139/2003/QĐ-TTg, Decision 151/2006/QĐ-TTg, and Decision 59/2010/QĐ-TTg instructing budget distribution norms provided that ratios of recurrent investments per head
in education in high mountainous areas to those in urban areas increase from 1.70 in 2004 to 2.02 in 2007 and 2.23 in 2011. Moreover, in the cases where provinces had extremely poor communes\(^4\) or districts\(^5\), each school age child in these communes or in these districts is additionally supported. For example, additional resources distributed for a school age child per year were about VND 49.4 thousand (nearly USD 3.1), VND 70 thousand (approximately USD 4.3), and VDN 140 thousand (about USD 7) in 2004, 2007, and 2011, respectively. Similarly, recurrent investment norms per capita in health in high mountainous areas were 1.80, 2.39, and 2.47 times of those in urban areas in 2004, 2007, and 2011, respectively.

The officials’ assessment is broadly consistent with the available statistical data. As shown in Figure 1 above, inter-provincial disparity in output per capita experienced a reversal of trend around the year 2004, when both the weighted and unweighted CV of provincial GDP per capita began to fall noticeably, after having generally increased for (at least) more than a decade.

Since 2007, budget distribution norms also applied for determining capital expenditures. In particular, during the budget stability period 2007-2010 the capital expenditures of provinces were determined by their cumulative score, based on five norms including population, level of development, natural areas, administrative units, and a supplementary norm. The higher cumulative scoring, provinces received more transfers from the central government. Of particular interest is that, special attention was paid to mountainous, remote, and disadvantaged areas as well as the ethnic minority areas when determining this cumulative score.

For example, according to the population norm, if the population of a particular province was 100,000 people, the province would obtain one score. However, if population of a province was below 500,000, it received five scores. In addition, for each 100,000 ethnic minority people in a province one more score was allocated. Therefore, the population norm favoured provinces having less population and more ethnic minorities. Regarding the level of development, for each 10 percent of poverty rating, provinces gained one score. With respect to the administrative unit norm, each mountainous or remote district provinces received a 0.2 score.

\(^4\) According to Decision 135/1998/QĐ-TTg.
\(^5\) According to Resolution 30a/2008/NQ-CP.
During the period 2011-2015, the capital expenditures of provinces will continue to be determined based on these five main norms; however, there are some changes in each particular norm and some of them further favour the poorer provinces. For example, provinces receive 1.5 scores instead of one score if they have an ethnic minority of 100,000. In addition, each five percent of poor households generate two scores. Similarly, for each mountainous or remote district that provinces have within their boundaries, they receive a 0.5 score rather than a 0.2 score. Moreover, each district located in border areas receives one score compared with the previous a 0.2 score.

Econometric analysis of trends underlying transfers from central government

The findings gained from the analysis of interviews regarding the role of transfers from the central to provincial governments in helping to reduce poverty and provincial output disparities are broadly supported by our econometric analysis. As can be seen in Table 3, poorer provinces tended to receive more subsidies from the central government, especially after 2004. For example, in 2000, the ratio of net transfers per capita of a province to the real national GDP per capita \((NTPC_i)\) increased by roughly 0.06 percentage points if the (lagged) ratio of real GDP per capita of this province to the real national GDP per capita \((RGDPPC_{i,t-2})\) decreased by one percentage point. Moreover, in 2008, the ratio of net transfers per capita of a province to the real national GDP per capita \((NTPC_i)\) increased by approximately 0.07 percentage points if the ratio of real GDP per capita of this province to the real national GDP per capita \((RGDPPC_{i,t-2})\) declined by one percentage point. Although the changes in these ratios between 2008 and 2000 are numerally small, they are statically significant.

In particular, Bac Kan, one of the poorest provinces of Vietnam in terms of real GDP per capita, received the highest real transfers per capita from the central government in 2002 and 2006. Further, the real transfers per capita from the central government to Bac Kan increased nearly 1.3 times, from VND 1.4 million in 2002 to VND 1.9 million in 2006. In contrast, richer provinces in terms of real GDP per capita tended to contribute more significantly to the central budget. For example, the

INSERT TABLE 3 ABOUT HERE
real sharable revenues per capita of Ho Chi Minh City transferred to the central budget increased by 2.1 times, from VND 1.1 million in 2002 to VND 2.3 million in 2008. Similarly, the real sharable revenues per capita of Hanoi transferred to the central government almost doubled, from VND 0.7 million in 2002 to VND 1.3 million in 2008. Provinces located in very remote areas ($D_{remote} = 1$) tended to receive more subsidies from the central government after 2004. For instance, they received nearly 1.4 times higher in terms of ratios of real net transfers from the central government to the real national GDP per capita in 2008 compared with those in 2000.

Comparing the adjusted $R^2$ between 2008 and 2000, it can be seen that the estimated relationship for 2008 is a much better fit of the data available for that year (adjusted $R^2 = 0.57$) than is the case for 2000 (where adjusted $R^2 = 0.46$). This is because the budget transfer mechanism from the central to provincial governments have been much more systematic and favourable to poorer provinces since the 2002 State Budget Law came into effect in 2004.

It is assumed that all individual province differences are captured by differences in the intercept parameters. The fixed effects estimator was applied because it has the advantage of capturing all time-invariant unobserved characteristics of each province whilst imposing no assumption between these characteristics and exogenous variables. Using fixed effect model can also overcome endogenous issues of time-invariant omitted variables. In addition, fixed effects estimation is preferred if the individual units are “one of a kind” and of interest, for example countries or provinces. However, in this case, a variable ($D_{remote}$) was dropped from an equation 4 because it is a time-invariant variable and already captured by using fixed effects.

The results of panel data regressions (fixed effects) indicate that provinces having lower ratios of provincial GDP per capita to the national GDP per capita tended to receive more transfers from the central government. Indeed, during the sub-period 2000-2003, provinces with one percentage-point lower ratios of provincial GDP per capita to the national GDP per capita received approximately 0.11 percentage-point higher ratios of net transfers per capita to the national GDP per capita.

The regression results also indicate that there was a break in terms of ratios of real net transfers per capita to the real national GDP per capita around 2004 and the intercept term decreased by 0.90 percentage points (see $D_{break2004}$). This was because revenue arrangements and expenditure responsibilities tended to be further decentralised to
provincial governments and the central government only transferred significant subsidies to poorer provinces.

More importantly, the slope of $D_{\text{break2004}}*R_{GDPPC_{i,t}}$ indicates that after 2004 the central government tended to transfer more than previously to poorer provinces. For example, from 2004 to 2008, the ratio of real net transfers per capita to the real national GDP per capita of a province increased by 0.008 percentage points if this province suffered from one percentage-point lower ratio of its real GDP per capita to the real national GDP per capita (for more details, see Table 4).

**INSERT TABLE 4 ABOUT HERE**

The random effects estimator was applied for an equation 4 when a time-invariant variable ($D_{\text{remote}}$) was controlled. The results of panel data regressions (random effects) indicate that provinces having lower ratios of provincial GDP per capita to the national GDP per capita tended to receive more transfers from the central government. Indeed, during the sub-period 2000-2003, provinces with one percentage-point lower ratios of provincial GDP per capita to the national GDP per capita received approximately 0.06 percentage-point higher ratios of net transfers per capita to the national GDP per capita.

Provinces located in very remote areas tended to receive more subsidies from the central government during the period 2000-2008. For instance, they received approximately 8.58 percentage-point higher ratios of real net transfers per capita to the real national GDP per capita for the sub-period 2000-2003. Of particular interest is that the slope of $D_{\text{remote}}*D_{\text{break2004}}$ indicates that after 2004 the central government tended to transfer more than previously to remote or mountainous provinces. For example, from 2004 to 2008, if a province was located in remote or mountainous areas, the ratio of real net transfers per capita to the real national GDP per capita of this province increased by 1.58 percentage points.

The regression results also indicate that there was a break in terms of ratios of real net transfers per capita to the real national GDP per capita around 2004 and the intercept term decreased by 1.35 percentage points (see $D_{\text{break2004}}$). This was because revenue arrangements and expenditure responsibilities tended to be further decentralised to provincial governments and the central government only transferred significant subsidies to poorer provinces.
More importantly, the slope of $Dbreak2004*RGDPPC_{i,t-2}$ indicates that after 2004 the central government tended to transfer more than previously to poorer provinces. For example, from 2004 to 2008, the ratio of real net transfers per capita to the real national GDP per capita of a province increased by 0.008 percentage points if this province suffered from one percentage-point lower ratio of its real GDP per capita to the real national GDP per capita (for more details, see Table 5).

**INSERT TABLE 5 ABOUT HERE**

**Relative importance of transfers from central government**

There are indications that public expenditure, especially public investment, at the provincial level has played a key role in reducing inter-provincial disparities in recent years. For instance, while the domestic (total) investment-to-GDP ratio for the country as a whole increased from 39 percent in 2005 to 46 percent in 2008, in Lai Chau-Dien Bien, one of the poorest provinces, it surged from approximately 8 percent in 1990 to nearly 89 percent in 2005 and to about 94 percent in 2008. The number of provinces with an investment-to-output ratio at or above 50 percent increased from 13 in 2001 (eight of which could be considered relatively poor) to 25 in 2005 and 30 in 2007 (17 of which were poor). Such extraordinarily high investment-output ratios implied that much of the goods and services that went into the relevant capital formation must have come from outside the province. In other words, it must have been imported from other provinces or from overseas. Typically the investment would involve the construction of infrastructure for which the central government must pay the lion’s share, either directly or through transfers to the relevant provincial authorities.

In interviews, both central and provincial officials confirmed that subsidies from the central government to provinces, especially poor provinces, made very important contributions to provincial budgets, poverty reduction, and mitigation of inter-provincial output disparity. The reason was that a majority of provinces did not have enough resources to meet their requirements for budget expenditure; therefore, they relied mainly on the transfers from the central government (for more details, see Table 6).

It can be shown that poor provinces received subsidies including balancing transfers and targeted transfers from the central budget.
accounting for more than 70 percent of their budget expenditures in 2008, indicating that the subsidies played vital roles in generating their sources of budget expenditure. Indeed, the subsidies from the central budget to Ha Giang accounted for about 81 percent of its total expenditures in 2008. Further, in 2008 the ratios of subsidies from the central budget of Cao Bang and Dien Bien in 2008 were approximately 77 percent and 75 percent, respectively.

In 2008, poor provinces having ratios of subsidies from the central government to their budget expenditures of between 50 percent and 70 percent also showed that the subsidies contributed significantly to their budget expenditure. For instance, in 2008 the subsidies from the central budget to Bac Kan and Thanh Hoa accounted for 68 percent and 64 percent of their budget expenditures, respectively.

**INSERT TABLE 6 ABOUT HERE**

All provinces are encouraged to raise revenue from other resources such as advancing unused capital, issuing investment bonds, borrowing money from the provincial VDAF and VDB, establishing development investment funds, and forming land development funds. However, the results from mobilising the resources vary, and provinces have different opinions about the importance of the utilisation of such resources.

**Firstly**, in the opinion of poorer provinces, unused capital advanced from their Treasuries or borrowed from their VDAF and VDB contributed moderately to their development investment because the investment mobilised from these sources are small compared with their overall budget expenditures. For example, Kon Tum borrowed VND 15 billion from the VDAF for its irrigation system improvement, but this accounted for only about 1.1 percent of its budget expenditures in 2005. In addition, a majority of poor provinces have not issued investment bonds to raise additional resources because their investment bonds may not be attractive to domestic organisations or local people. Therefore, investment bonds still do not play any role in generating additional sources for their budgets. Only very few poor provinces, such as Bac Giang, issued investment bonds to get additional resources but the result was not significant. For example, the total investment bonds issued by Bac Giang was VND 9.73 billion and accounted for only one percent of its total budget expenditure in 2002.

**Secondly**, poor provinces such as Phu Tho and Thanh Hoa reported that although their land development funds were established in 2010, the
roles of these funds in contributing additional resources to their budget expenditures were also limited. For example, the investment of land development funds of Phu Tho and Thanh Hoa was about VND 60 billion and VND 140 billion and accounting for only 1.4 percent and 1.6 percent of their budget expenditures in 2010, respectively.

From the above analysis, it is clear that wealthier provinces could get additional resources from these alternative sources more readily than poorer provinces. Subsidies from the central authorities were still the main sources contributing additional resources to budget expenditures of poorer provinces.

Some poor provinces appear to have relied heavily on transfers from the central authorities due to the following reasons. Firstly, their sources of revenue including revenues which they could collect totally and revenues shared with the central government did not meet their budget expenditures. Indeed, in 2008, the total revenue collected by Ha Giang, one of poorest provinces, was only VND 214 billion, accounting for approximately 5.7 percent of its total budget expenditure. Secondly, contributions of organisations and individuals to the budgets of poorer provinces were insignificant as people mainly contributed in kind to infrastructure development projects in their areas. For instance, the contributions of individuals and organisations of Lang Son were roughly VND one billion, accounting for only 0.03 percent of its budget expenditure in 2008. Thirdly, although provinces were allowed to mobilise additional resources to meet their requirements of budget expenditures, the capital mobilised by poorer provinces was insignificant. Therefore, transfers from the central government remain the main resources contributing considerably to budget expenditures of poor provinces.

**Securing adequate resources to finance transfers from central government**

Both central and provincial officials indicated that the central government faced difficulties in securing resources for redistribution to poorer provinces because of the following:

Firstly, sources of revenue of the central government (including revenues which the central government could collect 100 percent as well as sharable taxes with provincial governments) tended to decrease due to the negative impact of both economic recessions during the periods 1997-1998 and 2007-2008 and high inflation during the period 2007-
2008. Indeed, the national economic growth rate declined from approximately 9.3 percent in 1996 to nearly 8.2 percent in 2006 and then 5.3 percent in 2009. As a result, the growth rate of revenues collected by the central government decreased from approximately 41 percent in 2002 to 21 percent in 2004 and to 10 percent in 2008.

Secondly, few richer cities and provinces were in a position to transfer their revenues to the central budget. Indeed, in 2003, only five of 61 provinces (namely Hanoi, Ho Chi Minh City, Dong Nai, Binh Duong, and Ba Ria Vung Tau) transferred some of their revenues to the central budget. Although the number of provinces transferring their revenues to the central budget increased by 2008, only eleven provinces (comprising Quang Ninh, Hanoi, Hai Phong, Vinh Phuc, Da Nang, Khanh Hoa, Ho Chi Minh City, Binh Duong, Dong Nai, Ba Ria Vung Tau, and Can Tho) contributed some of their revenues to the central budget, and these provinces only accounted for approximately 25 percent of the national population of Vietnam in 2008. Further, although the contributions of these richer provinces to the central budget increased after 2004, the ratios of richer provincial contributions to the total subsidies from the central to provincial governments remained almost unchanged at approximately 66 percent during the sub-period 2005-2008.

**INSERT TABLE 7 ABOUT HERE**

Thirdly, a majority of provinces received subsidies from the central government and some of these provinces were extremely poor and relied mainly on subsidies from the central government. In particular, in 2008, seven poor provinces (including Lai Chau-Dien Bien, Son La, Hoa Binh, Ha Giang, Cao Bang, Yen Bai, and Quang Tri) received transfers from the central budget, and these transfers accounted for more than 70 percent of their budget expenditures. Ha Giang received transfers up to nearly 81 percent of its budget expenditure in 2008. In the same year 22 other poor provinces received subsidies of 50 percent to 70 percent, while 15 provinces received transfers from the central budget between 30 percent and 50 percent of their budget expenditures. Further, only six

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6 Based on the sources of revenue that could be shared between the central and provincial governments.

7 In 2008, the national population of Vietnam was approximately 86 million (Source: the GSO).
provinces received subsidies of less than 30 percent of their budget expenditures from the central government (for more details, see Table 6).

Fourthly, the central government was limited to the amount it could borrow from domestic and international organisations due to a legislated limit on the size of the budget deficit. For example, the budget deficit approved by the Vietnamese National Assembly was 5.0 percent of GDP in 2008 and 6.2 percent of GDP in 2010 (MOF, 2008 and 2010).

Fifthly, budget expenditure tasks undertaken by the central government for important development investment projects are heavy and this put more pressure on the central budget. For example, in 2005, the investment in the Dung Quat Oil Refinery project was approximately US dollar three billion, accounting for six percent of the nominal GDP of Vietnam (The Vietnamese Ministry of Planning and Investment, 2005).

Further, changes of government policies also put additional pressure on the central budget. For instance, in 2011, total state budget allocated for the salary reform policy was VND 27,000 billion, accounting for approximately 4.5 percent of the total national budget expenditure when the basic salary was adjusted from VND 730 thousand per month in 2010 to VND 830 thousand per month (MOF, 2011). As a result, the national budget deficit occurred for several years. For example, the ratios of national budget deficit to GDP were approximately five percent in 2000, 4.9 percent in 2004, five percent in 2006, and 4.6 percent in 2008 (MOF, 2000, 2004, 2006 and 2008).

Sixthly, provinces, especially poor provinces are frequently and heavily affected by natural disasters. Therefore, the central budget is subject to more pressure when blocks of urgent subsidies are required to help these provinces overcome the disasters. For instance, in 2009, the “main projects invested through several years as well as the agricultural sector of Kon Tum were almost completely destroyed by a storm N9, called a historic storm. As a result, about VND 250 billion from the central budget, accounting for approximately 14 percent of Kon Tum’s budget expenditure in 2009, was subsidised for Kon Tum to overcome this severe disaster” (A provincial official of Department of Finance of Kon Tum).

Finally, an increasing gap in socio-economic development between poor and rich regions as well as between poor and rich provinces also put more pressure on the central budget during the new budget stabilisation period. This is because the central government has responsibilities for solving uneven development between regions and between provinces. For example, the gap in GDP per capita between the poorest North West
region and the richest South East region increased from approximately 3.6 in 1990 to nearly 5.3 in 2004 and 4.9 in 2008. Further, the gap in GDP per capita between the richest city (Ho Chi Minh City) and the poorest province (Ha Giang) increased from 6.5 in 1990 to 7.2 in 2004 and 6.9 in 2008.

In conclusion, as discussed previously, under the 2002 State Budget Law, the transfers from the central government to poorer provinces in Vietnam played an important role in balancing the gap in revenues and expenditures of poorer provinces, and in promoting their economic growth. The transfers also contributed to reducing output disparities between poorer provinces and richer ones. Therefore, the transfer mechanism should be continuously implemented to safeguard resources for poorer provinces. However, the output inequality across provinces in Vietnam was still high (for more details, see Figure 1), and the central government faced difficulties in securing resources for re-allocation to poorer provinces. For that reason, solutions for improving the budget capacity of poorer provinces should be considered to reduce budget pressure on the central government. For example, additional special policies attracting investors, especially foreign investors to invest in infrastructure through Build-Operate-Transfer (BOT), Build-Transfer (BT), and Public Private Partnership (PPP) projects should be issued to promote socio-economic development in poorer provinces. This is because although the distribution of FDI across provinces has become less uneven since 2004, about 73 percent of FDI in Vietnam in 2008 was still concentrated in 11 richer cities/provinces including Ho Chi Minh City, Dong Nai, Binh Duong, Hanoi, Ba Ria Vung Tau, Da Nang, Hai Phong, Can Tho, Quang Ninh, Vinh Phuc, and Khanh Hoa. Furthermore, policies aimed at improving public investment efficiency and stabilising the economy should be strengthened to generate more resources for the central and local governments because public investment in Vietnam has recently tended to be unaffordable, inefficient, and unsustainable (Vietnam Development Report, 2011). Also, according to the Global Competitiveness Report 2013-2014, the overall global competitiveness index of Vietnam is just above average, for example 70/148 countries,

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8 Authors’ calculation based on FDI of the Ministry of Planning and Investment of Vietnam.
while the two other indicators including efficiency enhancer, and innovation and sophistication factors are even worse, for instance 74/148 and 85/148 countries, respectively.

7. CONCLUSION

This paper examines changes in key features of central-provincial government financial arrangements in Vietnam during the period 2000-2008, and their effects on provincial economic disparities. Our analysis suggests that after 2004, transfers from the central government to provincial governments conformed much more closely to objective, pre-determined criteria than before, due to the implementation of the new Law which came into effect in 2004. Econometric estimations confirm that in the post-2004 sub-period, poorer provinces obtained more-than-proportionate assistance from the central government, and the favourable treatment was statistically significant. Responses from interviews and statistical data indicate that transfers from the central government played an important role in reducing poverty and provincial output disparities after 2004. The paper also highlights the difficulties experienced by the central government in securing adequate resources to continue financing such transfers, and by many poorer provinces in trying to reduce their heavy reliance on transfers from the central government. Thus there is a continuing need to enhance the budget capacity of poorer provinces, as well as to improve the efficiency of public investments.
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