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Labour Productivity and Personnel Costs in Vietnamese Enterprises: The Gap Across Ownership Sectors

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Abstract

Vietnam's enterprise sector is organised around three ownership groups that differ sharply in size, capital and access to markets: state-owned enterprises (SOEs), non-state domestic firms and foreign-invested (FDI) firms. This paper documents how labour productivity and personnel costs compare across these groups and how the gaps evolved between 2016 and 2023. It uses only official secondary data from the enterprise census and annual enterprise surveys published by the General Statistics Office of Vietnam (GSO), in particular the national indicator tables of the 2025 White Book on Vietnamese Enterprises, supplemented by earlier editions. No econometric model is estimated. Instead, the study combines ratio analysis, relative-gap indices, an accounting split of personnel costs relative to turnover and profit, and a shift-share decomposition of aggregate turnover per worker. Three findings stand out. SOEs generate about twice the net turnover per worker of non-state firms and pay about 1.7 times as much, but they do so with roughly three

times as much capital per worker, so their pay premium mirrors capital intensity more than labour effort. FDI firms pay about 26 per cent more than non-state firms while producing slightly less turnover per worker, which gives them the highest personnel cost share of turnover (7.2–8.0 per cent) and the widest pay-to-productivity ratio. Most strikingly, average income per worker rose by almost exactly the same proportion in all three groups (about 34 per cent in nominal terms) even though turnover per worker, capital per worker and profit per worker grew at very different rates. Wage growth thus appears to follow a common economy-wide path rather than sector-specific productivity. Almost all of the rise in aggregate turnover per worker came from improvements within sectors rather than from labour moving between them. The paper discusses what these patterns imply for wage policy, SOE governance and the upgrading of domestic private firms.

Keywords: Labour Productivity, Personnel Costs, Ownership, State-owned Enterprises, Foreign Direct Investment, Vietnam

JEL Classification: D24; J31; L32; F23; O53

1. Introduction

Productivity and pay are two sides of the same question for any firm: How much value a worker helps to create, and how much of it returns to the worker. In a transition economy the question takes on an extra layer, because the answer can depend on who owns the firm. Owners differ in their objectives, in the constraints they face and in the markets they can reach. Vietnam offers a clear setting in which to observe these differences. After more than three decades of reform, its enterprise sector consists of a small but capital-rich group of SOEs, a very large population of domestic private firms, and a foreign-invested sector that dominates manufacturing exports. According to the GSO, the three groups employed 1.0 million, 9.3 million and 5.3 million workers respectively at the end of 2023 (GSO, 2025) ^[16].

The coexistence of these groups raises a set of practical questions that matter for policy. Do SOEs pay more because their workers are more productive, or because they control more capital and enjoy privileged positions in protected industries? Does foreign ownership raise pay because foreign firms are more efficient, or because they compete for scarce skills and follow corporate wage norms set abroad? And does the domestic private sector, which provides six out of every ten enterprise jobs, keep pay low because its productivity is low, or because its workers capture a larger share of a small surplus? These questions bear directly on Vietnam's current reform agenda. Resolution 12-NQ/TW of 2017 called for the restructuring and improved

efficiency of SOEs, and Resolution 68-NQ/TW of 2025 set out to make the private economy the most important driver of growth. Both documents assume, explicitly or implicitly, that productivity and labour costs differ by ownership in ways that policy can shape.

International research gives partial answers. A long line of studies shows that foreign-owned firms pay more than domestic firms, though much of the premium reflects firm size, capital and worker selection (Aitken *et al.*, 1996; Lipsey & Sjöholm, 2004; Heyman *et al.*, 2007; Hijzen *et al.*, 2013) [2, 26, 18, 19]. A separate literature finds that state ownership tends to lower efficiency while raising pay through soft budget constraints and political objectives (Kornai, 1986; Shleifer & Vishny, 1994; Megginson & Netter, 2001) [23, 32, 29]. Studies of rent sharing show that wages respond to firm-level profitability (Blanchflower *et al.*, 1996; Van Reenen, 1996; Card *et al.*, 2018) [8, 34, 11]. For Vietnam, firm-level studies have examined productivity spillovers from FDI, credit allocation and firm survival (Malesky & Taussig, 2009; Hansen *et al.*, 2009; Newman *et al.*, 2015) [27, 17, 31]. What is missing is a recent, transparent and comprehensive comparison that places productivity and personnel costs side by side for the whole enterprise population and follows the gap through the pandemic and the recovery.

This paper fills that gap with a descriptive design based entirely on official statistics. It does not estimate a regression model. That choice is deliberate. Published aggregate data cannot identify causal effects of ownership, and a model fitted to three groups observed over a few benchmark periods would add false precision. What the data can do well is describe magnitudes, ratios and changes with full coverage of the enterprise population, and decompose aggregate changes into their accounting components. These descriptive facts are a necessary first step for any causal work and are directly usable by policymakers.

The analysis is organised around three research questions. How large are the gaps in labour productivity and personnel costs between SOEs, non-state firms and FDI firms, and how did they change between the 2016–2020 period and 2023? Does each group's pay premium match its productivity premium, or do pay and productivity diverge? And did aggregate productivity in the enterprise sector rise because firms improved within each ownership group, or because workers moved between groups?

The paper makes three contributions. It assembles a consistent set of indicators for 2016–2023 covering employment, net turnover, capital, profit and employee income by ownership, drawn from the national tables of the GSO White Book series. It also introduces a simple way to read productivity and personnel costs together: Comparing each sector's pay premium with its turnover premium, measuring personnel costs relative to turnover, and measuring compensation relative to the combined pool of compensation and pre-tax profit. Finally, it tests whether the growth of aggregate turnover per worker came from improvements within ownership groups or from the reallocation of workers between them.

The remainder of the paper is organised as follows. Section 2 reviews the literature and sets out the analytical framework. Section 3 describes the data, indicators and analytical procedures. Section 4 presents the results. Section 5 discusses their interpretation, Section 6 draws policy

implications, and Section 7 concludes with the study's limitations.

2. Literature review and analytical framework

2.1 Productivity differences between firms

The modern view of productivity starts from the observation that firms differ enormously in how much output they obtain from the same inputs, even within narrowly defined industries. Syverson (2011) [33] surveys this evidence and shows that productivity dispersion is large and persistent, and that it is linked to management practices, technology, input quality and the competitive environment. Bloom and Van Reenen (2007) [9] document that management quality varies systematically with ownership, with family-run and government-owned firms scoring lower on average. In trade models with heterogeneous firms, only the more productive firms can bear the fixed costs of exporting or investing abroad, so multinational and exporting firms are, by selection, more productive than the average domestic firm (Melitz, 2003; Bernard & Jensen, 1995) [30, 7].

Differences between firms also matter for the economy as a whole. When capital and labour are not allocated to their most productive uses, aggregate productivity falls below its potential. Hsieh and Klenow (2009) [20] show that such misallocation can explain a large share of the gap in manufacturing productivity between China, India and the United States, and state ownership and privileged access to credit are among the distortions they point to. In developing economies, structural change, the movement of workers from low- to high-productivity activities, can be a powerful source of aggregate growth, but it can also run in the wrong direction (McMillan *et al.*, 2014) [28]. Decomposition methods that separate within-firm or within-sector improvements from between-unit reallocation are the standard tool for examining these channels (Baily *et al.*, 1992; Foster *et al.*, 2001) [5, 13].

2.2 Ownership, pay and the foreign wage premium

Workers in foreign-owned firms earn more than workers in domestic firms in almost every country studied. In early work on Mexico, Venezuela and the United States, Aitken *et al.* (1996) [2] found that foreign firms paid higher wages, and that the premium was larger in the developing countries. Lipsey and Sjöholm (2004) [26] reported a similar pattern in Indonesian manufacturing even after controlling for worker education. Later research using matched employer-employee data shows that part of the raw premium reflects the fact that foreign firms hire better-qualified workers and are larger and more capital-intensive; once these factors are taken into account, the premium shrinks but rarely disappears (Heyman *et al.*, 2007; Hijzen *et al.*, 2013) [18, 19]. Explanations for the remaining premium include efficiency wages paid to reduce turnover and protect firm-specific knowledge (Krueger & Summers, 1988) [25], the transfer of pay norms from parent companies, and sharing of the rents that foreign firms earn from their technology and market access.

The employer size-wage effect is closely related. Larger firms pay more, partly because they are more productive and partly because they use more capital per worker and need a more stable workforce (Brown & Medoff, 1989) [10]. More generally, a growing body of evidence shows that firm-specific pay premiums explain a substantial part of wage

inequality between otherwise similar workers (Abowd *et al.*, 1999; Card *et al.*, 2013, 2018) ^[1, 12, 11]. Ownership is one of the firm characteristics that shape these premiums.

2.3 State ownership, soft budgets and pay

The theory of state ownership predicts lower efficiency and, often, higher labour costs. Kornai (1986) ^[23] introduced the idea of the soft budget constraint: When the state stands ready to cover losses, managers face weak pressure to control costs. Kornai *et al.* (2003) ^[24] review the many forms this takes, from subsidised credit to tolerated arrears. Shleifer and Vishny (1994) ^[32] model SOEs as instruments of politicians, who may use them to provide employment and pay above market levels to favoured groups. A related multitask view holds that SOEs pursue social objectives alongside profit, which makes their performance hard to judge by financial measures alone (Bai *et al.*, 2000) ^[4]. Empirical surveys of privatisation generally find that moving firms to private ownership raises productivity and profitability (Megginson & Netter, 2001) ^[29].

China's experience offers the closest comparison for Vietnam. Reform of China's SOEs from the late 1990s combined closure and privatisation of small firms with consolidation of large ones in strategic sectors (Hsieh & Song, 2015) ^[21]. Berkowitz *et al.* (2017) ^[6] show that the reformed SOEs became more productive but continued to enjoy market power, and that their markups rose. The lesson is that measured SOE performance can improve because the state retains firms that hold monopoly positions in upstream industries, not only because efficiency improves. Vietnam has followed a broadly similar path of equitisation and consolidation. The number of SOEs fell steadily over the past decade while the remaining firms concentrated in energy, telecommunications, finance and other capital-intensive activities.

2.4 Rent sharing and the division of value added

Wages depend not only on productivity but also on how the value created by a firm is divided between workers and owners. Blanchflower *et al.* (1996) ^[8] and Van Reenen (1996) ^[34] show that wages in Britain and the United States rise with firm profitability, consistent with rent sharing. At the macro level, Karabarbounis and Neiman (2014) ^[22] document a global decline in the labour share of income, and Autor *et al.* (2020) ^[3] link the decline to the rise of highly productive "superstar" firms with low labour shares. A key insight from this literature is that a high-productivity sector does not automatically pay a proportionally higher wage; the share of value that goes to labour can fall as productivity and capital intensity rise.

For the present study this has a practical consequence. A comparison of average pay alone cannot reveal whether workers in one ownership group are better rewarded relative to what they produce. The pay premium must be read against the productivity premium, and personnel costs must be read against both turnover and profit.

2.5 Evidence from Vietnam

Research on Vietnam has documented large performance differences across ownership groups. Studies using GSO enterprise data report that FDI firms show the highest financial returns on assets and the lowest leverage, while SOEs report the highest debt ratios and the highest pay. Firm-level work shows that foreign firms can raise the

productivity of domestic suppliers through technology transfer, but that the effect depends on the absorptive capacity of domestic firms and on the type of linkage (Newman *et al.*, 2015) ^[31]. Political connections and state ownership have been linked to preferential access to bank credit (Malesky & Taussig, 2009) ^[27], and government support has been found to influence the growth and survival of small enterprises (Hansen *et al.*, 2009) ^[17]. Policy reports have long pointed to the dual structure of the economy, in which a modern foreign-invested export sector coexists with a domestic private sector of small, weakly connected firms (World Bank & Ministry of Planning and Investment, 2016) ^[35].

Two gaps remain. Most Vietnamese studies examine either productivity or wages, rarely both together. And few studies cover the period after 2020, when the pandemic, the subsequent recovery and the slowdown of 2023 changed the conditions faced by each ownership group. This paper addresses both gaps.

2.6 Analytical framework

The framework used in this paper links three ratios through a simple accounting identity. Let T be net turnover, L the number of employees, w annual income per employee, K total capital and Π pre-tax profit. Then:

- Turnover per worker, T/L , is the productivity measure available in the official data;
- The personnel cost share of turnover is wL/T , which equals annual income per worker divided by turnover per worker;
- Compensation relative to the combined pool of compensation and profit, $wL/(wL+\Pi)$, indicates how the surplus available after purchased inputs, depreciation and interest is divided between employees and owners (it is a proxy, not the national-accounts labour share);
- Capital per worker, K/L , captures capital intensity, which is expected to raise both measured productivity and pay.

Comparing each sector's relative pay, w/w_{ref} , with its relative productivity, $(T/L)/(T/L)_{ref}$, gives a pay-to-productivity ratio. A ratio above one means the sector pays a premium larger than its productivity premium; a ratio below one means the opposite. From the literature reviewed above, three expectations follow. SOEs should display high turnover per worker and high pay, both linked to high capital intensity, with a pay-to-productivity ratio that may fall below one if capital rather than labour drives turnover. FDI firms should pay a premium that is not fully matched by turnover per worker, because turnover in assembly-oriented operations understates their value added and because foreign firms pay efficiency and norm-based premiums. Non-state firms should show the lowest pay, but workers may absorb a large share of a thin surplus, which would appear as a high ratio of compensation to compensation plus profit.

3. Data and analytical approach

3.1 Data sources

All data come from official publications of the GSO (since 2025 the Statistics Office under the Ministry of Finance). The main source is the *White Book on Vietnamese Enterprises 2025* (GSO, 2025) ^[16], whose Part III reports national indicators for all enterprises that were operating and had business results. These indicators are compiled from the annual enterprise survey, which covers all enterprises

through a census of basic indicators combined with sample-based collection of detailed financial information. For each indicator the tables report the average for 2016–2020, the value for 2022 and the value for 2023, broken down by size, ownership and industry. Part II of the same publication reports annual totals for 2016–2023 and annual growth rates of employment and levels of capital by ownership, which are used to construct annual series. Two earlier editions (GSO, 2019, 2020) ^[14, 15] provide ownership-level figures for 2017 and 2018, which serve as a consistency check. Ownership groups follow the GSO definitions. The state sector comprises single-member limited liability companies

wholly owned by the state and joint-stock or limited companies in which the state holds more than 50 per cent of charter capital. The non-state sector comprises domestic firms that are privately owned or in which the state holds 50 per cent or less. The FDI sector comprises all firms with foreign capital, regardless of the foreign share. Employment refers to workers managed, used and paid by the enterprise at 31 December. Income of employees includes wages, bonuses, allowances and other payments charged to production costs, plus payments from welfare and reward funds or from profit.

Table 1 lists the indicators used and how each is built.

Table 1: Indicators, definitions and data sources

Indicator	Definition and construction	Unit	Source
Employees (<i>L</i>)	Workers managed, used and paid by the enterprise at 31 December	Persons	GSO (2025) ^[16] , Part III, Table 7
Net turnover (<i>T</i>)	Sales of goods and services net of trade discounts, price reductions and returns	Billion VND	Table 29
Net turnover per worker	T/L	Million VND per year	Derived
Monthly income per worker ($w/12$)	Wages, bonuses, allowances and other payments to employees, per worker per month	Thousand VND	Table 9
Total compensation (wL)	Annual income per worker $\times$ employees	Trillion VND	Derived
Labour use efficiency	Average net turnover per worker $\div$ average income per worker	Times	Table 11
Personnel cost share	$wL/T = 1 \div$ labour use efficiency	Per cent	Derived
Compensation share of surplus pool	$wL \div (wL + \Pi)$	Per cent	Derived
Capital per worker	Total capital (equity plus liabilities) $\div$ employees	Million VND	Table 23
Fixed assets per worker	Fixed assets and long-term investment $\div$ employees	Million VND	Table 27
Capital turnover	Net turnover $\div$ average total capital	Times	Table 19
Pre-tax profit (Π) and profit per worker	Profit before corporate income tax; Π/L	Billion VND; million VND	Table 31; derived
ROS, ROA, ROE	$\Pi \div$ net turnover; $\Pi \div$ average assets; $\Pi \div$ average equity	Per cent	Tables 37, 39, 41
Debt-to-equity	Average total debt $\div$ average equity	Times	Table 21
Annual employment and capital, 2016–2023	Employment chained from published annual growth rates; capital stocks by ownership	Persons; million billion VND	GSO (2025) ^[16] , Part II, Charts 11 and 14
Ownership snapshots, 2017 and 2018	Income, labour use efficiency, ROS, ROA, debt ratio by ownership	As above	GSO (2019, 2020) ^[14, 15]

Note: Table numbers refer to Part III of GSO (2025) ^[16]. Derived indicators are computed by the author.

3.2 Indicators

The main productivity indicator is net turnover per worker. Value added would be the preferred measure, but the published enterprise tables do not report value added by ownership. Turnover per worker is therefore used throughout, with two cautions that shape the interpretation. It overstates the productivity of activities with a high share of purchased inputs, such as trading and assembly, and it can be affected by transfer pricing within multinational groups. These cautions are especially relevant for comparisons involving FDI firms and are revisited in Section 5.

Personnel costs are measured by average monthly income per employee, converted to an annual figure, and by total compensation, obtained as annual income per worker multiplied by the number of workers. The GSO's labour use efficiency indicator, defined as average net turnover per worker divided by average income per worker, is the reciprocal of the personnel cost share of turnover. Using the published indicator avoids errors from mixing end-of-year and period-average employment. The difference between the published values and those recomputed from end-of-year employment is small (for example, 21.72 published versus 21.76 recomputed for SOEs in 2023).

Capital intensity is measured by total capital (equity plus

liabilities) per worker and by fixed assets and long-term investment per worker, both published by the GSO. Financial performance is measured by the ratios of pre-tax profit to net turnover (ROS), to total assets (ROA) and to equity (ROE), together with the debt-to-equity ratio.

3.3 Analytical procedures

The analysis proceeds in four steps, none of which involves estimating a statistical model.

The first step is level and ratio analysis. Each indicator is reported for the three benchmark periods (2016–2020 average, 2022, 2023) and for each ownership group.

The second step computes relative-gap indices with the non-state sector as the reference group, because it is the largest employer and the natural benchmark for domestic private activity. For each sector and period, relative turnover per worker, relative income per worker, relative capital per worker and relative profit per worker are calculated, and the pay-to-productivity ratio is obtained by dividing relative income by relative turnover per worker.

The third step decomposes the change in aggregate turnover per worker between two periods, using the standard shift-share identity (Baily *et al.*, 1992; Foster *et al.*, 2001) ^[5, 13]:

$$\Delta P = \sum_i s_{i,0} \Delta p_i + \sum_i \Delta s_i p_{i,0} + \sum_i \Delta s_i \Delta p_i$$

Where P is aggregate turnover per worker, p_i is turnover per worker in ownership group i , s_i is the group's share of employment, and subscript 0 denotes the initial period. The first term is the within-sector effect, the second the between-sector (reallocation) effect, and the third a cross term. This is an exact accounting identity rather than an estimated relationship.

The fourth step builds annual series. Employment by ownership for 2016–2021 is obtained by chaining the published annual growth rates backwards from the 2022 level. The chained series reproduces the published 2016–2020 averages within 0.3 per cent for all three groups (SOE: 1,151,313 derived against 1,148,339 published; non-state: 8,796,278 against 8,800,397; FDI: 4,689,235 against 4,687,363), which confirms its reliability. Annual capital per worker is then computed from the published annual capital stocks by ownership.

3.4 Data quality notes

Three data issues deserve mention. Figures are in current prices. Comparisons across ownership groups within a period are unaffected, but changes over time include price inflation. Consumer prices rose by roughly 15 per cent between 2018, the midpoint of the 2016–2020 window, and

2023 (cumulating the annual average CPI growth rates reported by the GSO: 2.79, 3.23, 1.84, 3.15 and 3.25 per cent for 2019–2023), and this benchmark is used when discussing real changes. The White Book also contains one internal inconsistency relevant to this study: The narrative text of Part II reports a 2023 ROS of 9.32 per cent for SOEs, whereas the Part III tables imply 7.6 per cent, which equals pre-tax profit (342,024 billion VND) divided by net turnover (4,521,535 billion VND). The tabulated value is used here because it is consistent with the underlying levels. Finally, the 2016–2020 figures are period averages that include the pandemic year 2020, which depressed employment and profits. This makes the comparison with 2022 and 2023 conservative for growth rates.

4. Results

4.1 The structure of the enterprise sector

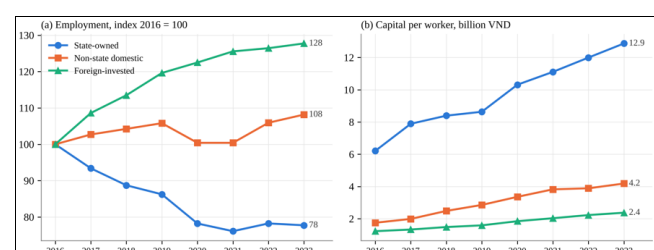
Table 2 summarises the scale of each ownership group. The enterprise population grew from an average of about 606,000 firms with business results in 2016–2020 to more than 778,000 in 2023. Almost all of the growth came from non-state and FDI firms. The number of SOEs fell from an average of 2,300 to 1,804, a decline of more than a fifth, reflecting equitisation, mergers and divestment.

Table 2: Enterprises and employees by ownership sector, 2016–2023

Ownership sector	Firms 2016–20 avg.	Firms 2022	Firms 2023	Employees (thous.) 2016–20 avg.	Employees (thous.) 2022	Employees (thous.) 2023	Share of employees 2023 (%)
State-owned	2,300	1,880	1,804	1,148	1,009	1,002	6.4
Non-state domestic	585,862	710,646	751,935	8,800	9,079	9,271	59.5
Foreign-invested	17,612	22,929	24,690	4,687	5,254	5,308	34.1
All enterprises	605,774	735,455	778,429	14,636	15,342	15,582	100.0

Source: Author's compilation and calculations from GSO (2025) ^[16], Part III, national tables. Enterprises operating with business results; employees at 31 December

Employment followed the same pattern but with different weights. In 2023, non-state firms employed 59.5 per cent of all enterprise workers, FDI firms 34.1 per cent and SOEs only 6.4 per cent. Fig 1a shows the annual trajectories. FDI employment rose by about 28 per cent between 2016 and 2023 and continued to grow through the pandemic, if more slowly. Non-state employment rose more modestly and fell by about 5 per cent in 2020 before recovering. SOE employment declined almost continuously, falling by about 22 per cent over the period, with the sharpest drop (about 9 per cent) in 2020.



Note: Employment for 2016–2021 is chained backwards from the published 2022 level using the published annual growth rates; capital per worker = end-year capital ÷ end-year employment.

Source: Author's calculations from GSO (2025) ^[16], Part II, Charts 11 and 14, and Part III, Table 7

Fig 1: Employment and capital per worker by ownership, 2016–2023

The size contrast is striking. In 2023 the average SOE employed 555 workers and the average FDI firm 215, compared with 12 in the average non-state firm (GSO, 2025) ^[16]. Ownership is therefore strongly correlated with firm size, and part of every difference reported below reflects this.

4.2 Labour productivity and capital intensity

Table 3 reports turnover per worker and capital intensity. Three patterns emerge.

SOEs are the most productive group by the turnover measure, at 4.5 billion VND per worker in 2023, about twice the level of non-state firms (2.3 billion) and FDI firms (2.0 billion). The SOE lead is not new: It was 1.91 times the non-state level on average in 2016–2020 and widened to 1.98 times in 2023 (Table 5). The lead rests on capital. Each SOE worker was backed by 12.6 billion VND of capital in 2023, roughly three times the non-state level (4.1 billion) and more than five times the FDI level (2.3 billion). Fig 1b shows that capital per SOE worker roughly doubled between 2016 and 2023, while the number of workers fell. The SOE sector became a smaller but more capital-heavy group of firms.

Table 3: Labour productivity, capital intensity and profit per worker by ownership

Sector	Period	Net turnover per worker (mn VND/yr)	Capital per worker (mn VND)	Fixed assets & LT investment per worker (mn VND)	Capital turnover (times)	Pre-tax profit per worker (mn VND/yr)
State-owned	2016–2020 avg.	2,860	7,923	1,174	0.36	172.4
	2022	4,275	11,376	1,143	0.38	347.5
	2023	4,513	12,636	1,018	0.36	341.4
Non-state domestic	2016–2020 avg.	1,496	2,378	248	0.65	31.3
	2022	2,277	3,801	387	0.62	60.9
	2023	2,275	4,083	396	0.57	32.6
Foreign-invested	2016–2020 avg.	1,416	1,453	378	1.00	83.7
	2022	2,089	2,174	500	0.97	105.9
	2023	2,011	2,307	542	0.87	97.4
All enterprises	2016–2020 avg.	1,577	2,530	364	0.64	59.1
	2022	2,344	3,745	477	0.64	95.1
	2023	2,329	4,029	487	0.59	74.5

Source: Author's compilation and calculations from GSO (2025)^[16], Part III, national tables. Turnover and profit per worker are computed from sector totals and end-of-year employment; capital and fixed assets per worker are as published

Capital in SOEs, however, turns over slowly. Their capital turnover ratio (net turnover divided by capital) stayed around 0.36 throughout the period, compared with about 0.57–0.65 for non-state firms and 0.87–1.00 for FDI firms. A unit of capital in an FDI firm generated between 2.4 and 2.8 times as much turnover as a unit of capital in an SOE. Put differently, SOEs achieve high turnover per worker by combining few workers with very large capital stocks, not by using capital intensively.

The FDI sector presents the opposite profile. Its turnover per worker was slightly below the non-state level throughout and fell from 0.95 to 0.88 times that level between 2016–2020 and 2023. This is the lowest relative value among the three groups, despite the sector's reputation for high productivity. The explanation lies in the composition of FDI activity: Foreign firms are concentrated in labour-intensive assembly of electronics, garments and footwear, where large workforces process imported components. Female workers made up 59–65 per cent of FDI employment over the period, compared with 39–41 per cent in non-state firms (Table 9), consistent with this concentration. In these activities,

turnover per worker understates value added per worker in some cases and overstates it in others, depending on the share of imported inputs and on internal pricing. The capital data confirm a low capital intensity: FDI firms used only 0.57–0.61 times the capital per worker of non-state firms, but they used it more productively.

The aggregate picture changed little after 2022. Turnover per worker for all enterprises stood at 2.34 billion VND in 2022 and 2.33 billion in 2023, as weak external demand reduced FDI turnover by 2.7 per cent in 2023 while employment kept growing.

4.3 Personnel costs and the pay premium

Table 4 reports personnel cost indicators. Average monthly income in 2023 was 17.3 million VND in SOEs, 12.9 million in FDI firms and 10.3 million in non-state firms. The ranking was the same in every period, including the snapshots for 2017 and 2018 reported in Table 7. Relative to the non-state sector, SOEs paid a premium of 66–69 per cent and FDI firms a premium of 24–26 per cent (Table 5).

Table 4: Personnel costs and the division of the surplus by ownership

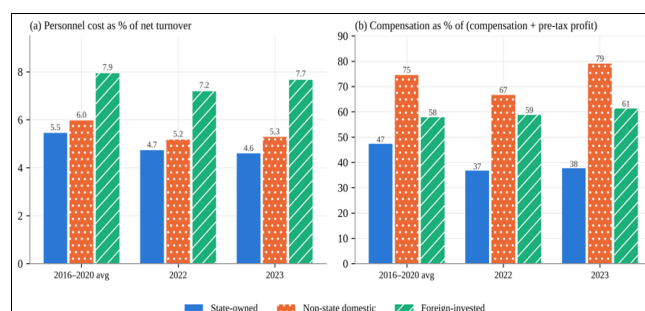
Sector	Period	Monthly income per worker (mn VND)	Annual income per worker (mn VND)	Total compensation (trn VND)	Labour use efficiency (times)	Personnel cost / net turnover (%)	Compensation / (compensation + profit) (%)
State-owned	2016–2020 avg.	12.94	155.3	178	18.31	5.46	47.4
	2022	16.91	202.9	205	21.07	4.75	36.9
	2023	17.29	207.4	208	21.72	4.60	37.8
Non-state domestic	2016–2020 avg.	7.66	92.0	809	16.72	5.98	74.6
	2022	10.20	122.4	1,111	19.27	5.19	66.8
	2023	10.26	123.1	1,141	18.90	5.29	79.1
Foreign-invested	2016–2020 avg.	9.62	115.5	541	12.58	7.95	58.0
	2022	12.64	151.7	797	13.88	7.20	58.9
	2023	12.88	154.5	820	13.02	7.68	61.4
All enterprises	2016–2020 avg.	8.72	104.6	1,531	15.45	6.47	63.9
	2022	11.50	138.0	2,117	17.39	5.75	59.2
	2023	11.62	139.5	2,173	16.92	5.91	65.2

Source: Author's compilation and calculations from GSO (2025)^[16], Part III, national tables. Annual income = monthly income × 12. Personnel cost share = 1 ÷ labour use efficiency. The last column divides total compensation by the sum of total compensation and pre-tax profit

The personnel cost share of turnover reveals how heavily labour costs weigh on each group's revenue. It was lowest in SOEs (4.6 per cent in 2023), intermediate in non-state firms (5.3 per cent) and highest in FDI firms (7.7 per cent). In every group the share fell between 2016–2020 and 2022, as turnover grew faster than pay, and then edged up again in non-state and FDI firms in 2023, when turnover stalled. The FDI share is roughly two-thirds higher than the SOE share, which is consistent with the GSO's own observation that FDI firms devote a larger part of their revenue to employee payments (GSO, 2025) [16].

The ratio of compensation to the combined pool of compensation and pre-tax profit tells a different story (Fig 2b). In SOEs, employees received only 38 per cent of this pool in 2023, down from 47 per cent in 2016–2020; owners, mainly the state, received the rest as pre-tax profit. In FDI firms the employee share was about 58–61 per cent. In non-state firms it was 67–79 per cent, and it rose to its highest level in 2023 because profits halved while pay was maintained. In other words, the lowest-paid workers belonged to the group in which labour absorbed the largest share of the available surplus, while the best-paid workers

belonged to the group in which owners captured the most.



Source: Author's compilation and calculations from GSO (2025) [16], Part III, national tables

Fig 2: Personnel costs relative to net turnover and to the surplus pool, by ownership

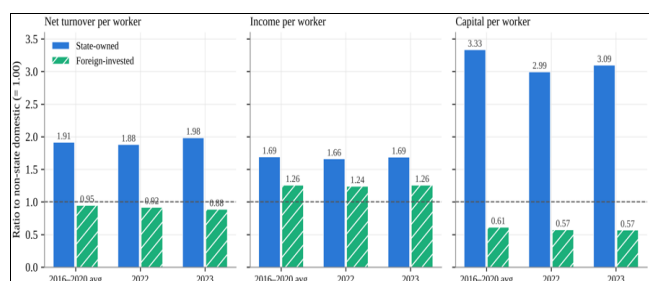
4.4 Comparing the pay premium with the productivity premium

Table 5 and Fig 3 bring the two dimensions together. The pay-to-productivity ratio divides each sector's relative pay by its relative turnover per worker.

Table 5: Relative gaps against the non-state domestic sector (non-state = 1.00)

Sector	Period	Turnover per worker	Income per worker	Capital per worker	Profit per worker	Pay-to-productivity ratio
State-owned	2016–2020 avg.	1.91	1.69	3.33	5.51	0.88
	2022	1.88	1.66	2.99	5.70	0.88
	2023	1.98	1.69	3.09	10.48	0.85
Foreign-invested	2016–2020 avg.	0.95	1.26	0.61	2.68	1.33
	2022	0.92	1.24	0.57	1.74	1.35
	2023	0.88	1.26	0.57	2.99	1.42

Source: Author's compilation and calculations from GSO (2025) [16], Part III, national tables. Pay-to-productivity ratio = relative income per worker ÷ relative turnover per worker



Source: Author's compilation and calculations from GSO (2025) [16], Part III, national tables

Fig 3: Turnover, income and capital per worker relative to the non-state domestic sector

For SOEs the ratio was below one in all periods (0.88 in 2016–2020 and 2022, 0.85 in 2023). SOE workers earned a large premium, but a smaller one than the turnover premium of their firms, and the premium in capital per worker (about 3.1 times) was larger still. Taken together, these figures indicate that the SOE pay premium is linked more closely to capital intensity and the type of industries SOEs occupy than

to the labour input itself. If the pay premium followed capital per worker, it would be much larger; if it followed turnover per worker, it would be somewhat larger. It follows neither fully.

For FDI firms the ratio was well above one and rising, from 1.33 to 1.42. Foreign firms paid a premium of about a quarter over domestic private firms while generating slightly less turnover per worker, and the gap between pay and turnover widened over time. This is the clearest evidence in the data that the FDI wage premium is not explained by turnover-based productivity. Section 5 considers why.

The profit per worker comparison adds a further contrast. SOEs earned 5.5–10.5 times as much pre-tax profit per worker as non-state firms, and FDI firms 1.7–3.0 times as much. The 2023 jump in the SOE ratio reflects the collapse of non-state profits (down 45 per cent from 2022) rather than a gain in SOEs, whose profits fell slightly.

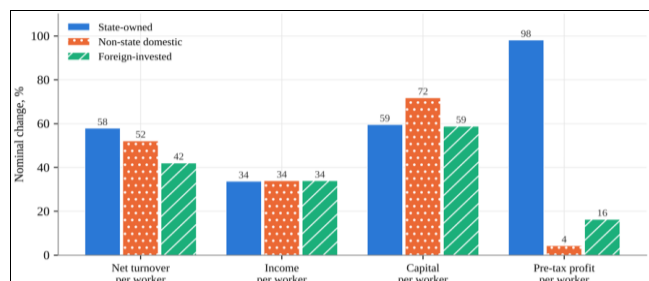
4.5 Growth of productivity, pay and capital

Table 6 and Fig 4 compare the growth of each indicator between the 2016–2020 average and 2023.

Table 6: Nominal change between the 2016–2020 average and 2023 (%)

Sector	Turnover per worker	Income per worker	Capital per worker	Profit per worker	Employment	Change in personnel cost share (pp)
State-owned	57.8	33.6	59.5	98.0	-12.8	-0.86
Non-state domestic	52.1	33.8	71.7	4.2	5.4	-0.69
Foreign-invested	42.0	33.8	58.8	16.3	13.2	-0.27
All enterprises	47.7	33.3	59.2	26.0	6.5	-0.56

Source: Author's compilation and calculations from GSO (2025) ^[16], Part III, national tables. Values are in current prices; cumulative consumer price inflation between 2018 and 2023 was about 15 per cent



Source: Author's compilation and calculations from GSO (2025) ^[16], Part III, national tables

Fig 4: Change in per-worker indicators between the 2016–2020 average and 2023 (nominal, %)

The most remarkable result is the near-identical growth of income per worker: 33.6 per cent in SOEs, 33.8 per cent in non-state firms and 33.8 per cent in FDI firms. Over the same interval, turnover per worker grew by 57.8, 52.1 and 42.0 per cent respectively, capital per worker by 59.5, 71.7 and 58.8 per cent, and profit per worker by 98.0, 4.2 and

16.3 per cent. Pay growth was thus almost perfectly uniform across groups whose productivity, capital and profitability evolved very differently. Deflating by the cumulative rise in consumer prices of about 15 per cent, real pay grew by around 16 per cent in all three groups, or roughly 3 per cent a year.

Because pay grew more slowly than turnover everywhere, the personnel cost share fell in all three groups. The decline was largest in SOEs (0.86 percentage points) and smallest in FDI firms (0.27 points), which mirrors the ranking of turnover growth. The uniform pay growth also explains why the relative pay premiums in Table 5 barely moved: SOE pay stayed at about 1.7 times and FDI pay at about 1.25 times the non-state level throughout.

The snapshots for 2017 and 2018 (Table 7) are consistent with this picture. Income per worker grew between those two years by 5.5 per cent in SOEs, 6.4 per cent in non-state firms and 7.8 per cent in FDI firms, and the labour use efficiency ranking (SOE highest, FDI lowest) was the same as in the later benchmark periods.

Table 7: Ownership snapshots for 2017 and 2018

Year	Sector	Monthly income (mn VND)	Labour use efficiency (times)	ROS (%)	ROA (%)	Debt-to-equity (times)
2017	State-owned	11.90	n.a.	6.4	2.2	4.1
	Non-state domestic	7.40	n.a.	2.5	1.8	2.3
	Foreign-invested	9.00	n.a.	6.6	7.0	1.6
	All enterprises	8.30	n.a.	4.2	2.9	2.5
2018	State-owned	12.56	20.0	5.6	2.0	3.4
	Non-state domestic	7.87	16.1	2.4	1.6	1.9
	Foreign-invested	9.70	12.6	5.6	5.8	1.7
	All enterprises	8.82	15.3	3.8	2.4	2.1

Source: GSO (2019, 2020) ^[14, 15], n.a. = not available in the cited edition

Table 8: Shift-share decomposition of the change in aggregate net turnover per worker (million VND per worker)

Interval	Total change	Within-sector	Between-sector (reallocation)	Cross term	Within: SOE	Within: non-state	Within: FDI
2016–2020 avg. → 2022	766.7	796.3 (104%)	-19.1 (-2%)	-10.5 (-1%)	111.0	469.9	215.3
2016–2020 avg. → 2023	751.6	788.7 (105%)	-20.9 (-3%)	-16.1 (-2%)	129.7	468.5	190.5
2022 → 2023	-15.1	-12.3	-2.5	-0.2	15.6	-1.4	-26.5

Source: Author's compilation and calculations from GSO (2025) ^[16], Part III, national tables. Shares of the total change in parentheses; percentages are not shown for 2022–2023 because the total change is close to zero

4.6 Within-sector improvement versus reallocation

Table 8 decomposes the change in aggregate turnover per worker.

Between 2016–2020 and 2023, aggregate turnover per worker rose by 752 million VND. The within-sector effect accounted for 789 million, or 105 per cent of the total, while the reallocation of workers between ownership groups subtracted 21 million and the cross term a further 16 million. The non-state sector contributed the largest within-sector gain (469 million), followed by FDI (191 million) and SOEs (130 million), reflecting the sectors' employment weights as much as their productivity growth.

The negative reallocation effect has a simple explanation.

Labour moved out of the high-turnover SOE sector (whose employment share fell from 7.8 to 6.4 per cent) and into the FDI sector (from 32.0 to 34.1 per cent), whose turnover per worker is the lowest. Even though the movement of workers into foreign firms raised their pay, it lowered aggregate turnover per worker as measured. Between 2022 and 2023, aggregate turnover per worker fell slightly, driven almost entirely by the decline within the FDI sector.

4.7 Financial performance and the capacity to pay

Table 9 relates the productivity and pay patterns to financial outcomes.

Table 9: Financial performance and workforce composition by ownership

Sector	Period	ROS (%)	ROA (%)	ROE (%)	Debt-to-equity (times)	Profit-making firms (%)	Loss-making firms (%)	Female employees (%)
State-owned	2016–2020 avg.	6.9	2.3	12.0	3.56	80.2	17.4	32.8
	2022	8.1	3.2	17.2	3.69	82.9	15.2	35.6
	2023	7.6	2.8	15.4	3.95	81.4	17.1	35.6
Non-state domestic	2016–2020 avg.	2.1	1.4	4.1	2.02	43.3	47.2	38.8
	2022	2.7	1.7	5.1	2.05	44.2	47.1	41.1
	2023	1.4	0.8	2.5	2.12	43.7	47.8	39.9
Foreign-invested	2016–2020 avg.	5.9	5.9	15.0	1.53	50.6	45.0	64.7
	2022	5.1	4.9	12.5	1.54	52.6	44.5	62.0
	2023	4.8	4.2	10.8	1.55	49.5	47.3	59.2
All enterprises	2016–2020 avg.	3.8	2.4	7.6	2.18	43.7	47.0	46.6
	2022	4.1	2.6	8.2	2.15	44.6	46.9	47.9
	2023	3.2	1.9	6.0	2.22	44.0	47.8	46.2

Source: Author's compilation and calculations from GSO (2025)^[16], Part III, national tables. ROS for SOEs in 2023 follows the tabulated levels (7.6 per cent); see Section 3.4

SOEs combined the highest ROS (6.9–8.1 per cent) and ROE (12.0–17.2 per cent) with the highest leverage (debt-to-equity of 3.6–4.0, rising over the period), while their ROA (2.3–3.2 per cent) sat between that of non-state and FDI firms. More than 80 per cent of SOEs reported a profit, compared with about 44 per cent of non-state firms and about 50 per cent of FDI firms. FDI firms earned the highest returns on assets (4.2–5.9 per cent) with the lowest leverage (about 1.5), although their returns declined steadily over the period. Non-state firms had the weakest profitability on every measure; their ROA fell to 0.8 per cent and their ROS to 1.4 per cent in 2023, and nearly half of them made losses in each period.

These figures explain much of the variation in the division of the surplus noted in Section 4.3. Non-state firms paid

their workers modest wages, but with margins of 1–3 per cent of turnover, those wages already consumed most of what remained after other costs. SOEs, with margins of 7–8 per cent and large capital stocks, could have paid more, but most of their surplus was retained as profit. FDI firms combined the second-highest pay with mid-range margins and declining returns.

4.8 Size and industry as confounding dimensions

Because the GSO does not cross-tabulate ownership with firm size or industry, the ownership gaps reported above mix the effect of ownership with the effects of scale and industry mix. Table 10 shows how large these other dimensions are on their own.

Table 10: Pay and labour use efficiency by firm size and industry

Group	Employees 2023 (thous.)	Share of employees 2023 (%)	Monthly income 2016–2020 avg. (mn VND)	Monthly income 2023 (mn VND)	Labour use efficiency 2016–2020 avg. (times)	Labour use efficiency 2023 (times)	Personnel cost share 2023 (%)
Micro firms	1,516	9.7	5.88	7.47	6.25	6.38	15.67
Small firms	2,773	17.8	7.41	9.43	14.87	16.81	5.95
Medium firms	1,493	9.6	8.34	11.01	17.04	18.42	5.43
Large firms	9,800	62.9	9.63	12.98	16.31	17.72	5.64
Manufacturing	7,567	48.6	8.16	10.57	12.83	13.90	7.19
Services	6,027	38.7	9.92	13.31	19.44	20.16	4.96
All enterprises	15,582	100.0	8.72	11.62	15.45	16.92	5.91

Source: Author's compilation and calculations from GSO (2025)^[16], Part III, national tables. Size classes follow Decree No. 80/2021/ND-CP. Manufacturing and services are shown as the two largest industry groups

The size gradient in pay is about as steep as the ownership gradient. In 2023, workers in large firms earned 13.0 million VND a month, 1.74 times the 7.5 million earned in micro firms. This ratio is almost identical to the SOE premium over non-state firms (1.69). Since the average SOE employs more than 500 workers and the average non-state firm only 12, a substantial part of the SOE premium could reflect size rather than ownership. Micro firms also stand out in another way: Their labour use efficiency is only 6.4, which means that personnel costs absorb almost 16 per cent of their turnover, nearly three times the share in small, medium and large firms. The non-state sector contains virtually all of Vietnam's micro firms, and their weight pulls down both the sector's pay and its margins.

Industry composition matters just as much. Manufacturing, where FDI is concentrated, had a personnel cost share of 7.2

per cent in 2023, close to the FDI figure of 7.7 per cent, while services had a share of 5.0 per cent. Capital per worker in services (7.3 billion VND) was almost five times the manufacturing level (1.5 billion), reflecting the weight of finance, real estate and utilities. The FDI profile of low capital intensity and high personnel cost share is, to a large degree, the profile of manufacturing itself.

These comparisons do not remove the ownership gaps, but they show the order of magnitude of the confounding factors. A firm-level analysis that compared firms of the same size and industry would probably find narrower ownership gaps in pay than the aggregates suggest. The uniform growth of pay across ownership groups documented in Section 4.5 is less exposed to this concern, because composition changed only slowly between the benchmark periods.

5. Discussion

5.1 The state-owned premium: Capital and position rather than labour

The SOE results fit the expectation that state ownership in Vietnam is now concentrated in capital-intensive industries. After a decade of equitisation, the state retained majority control mainly in energy, mining, telecommunications, banking, transport infrastructure and other strategic activities. These industries generate high turnover per worker because they are capital-intensive and, in several cases, because they operate under regulated prices or limited competition. The low and flat capital turnover of SOEs (about 0.36) is consistent with large, slowly yielding asset bases and with the weak capital discipline that the soft budget constraint literature predicts (Kornai *et al.*, 2003) ^[24]. The pay premium of SOE workers, about 1.7 times the non-state level, is substantial but smaller than either the turnover premium or the capital premium. This pattern argues against a simple story in which SOEs overpay their workers relative to what the firms generate. A better reading is that SOE wages are set by rules, under the regulated wage framework for state-majority companies (Decree No. 53/2016/ND-CP and its successors), which tie the wage fund to profit and productivity targets but constrain how much of a firm's surplus can be passed on to employees. The rising share of profit in the SOE surplus pool (from 53 to 62 per cent) is consistent with this framework. The finding resembles the Chinese experience described by Berkowitz *et al.* (2017) ^[6], in which reformed SOEs became more profitable partly because they occupied favourable market positions.

Two cautions apply. The SOE averages hide large differences between firms; a few groups in oil and gas, electricity and telecommunications dominate the totals. And high ROS and ROE coexist with the highest leverage in the economy, so a part of SOE profitability relies on access to debt finance that private firms do not enjoy (Malesky & Taussig, 2009) ^[27].

5.2 The foreign premium: Pay without turnover

The FDI results are the most striking. Foreign firms paid a quarter more than domestic private firms while generating less turnover per worker, and the gap between pay and turnover widened over the period. Several mechanisms from the literature can account for this.

The first is measurement. Turnover is a poor proxy for value added in assembly operations that import most of their components and export finished goods, and it can be shaped by transfer pricing within multinational groups. If value added per worker were available, the FDI productivity gap might look smaller or reverse. The GSO tables, however, do not allow this to be checked by ownership.

The second is labour market competition. FDI firms are concentrated in industrial zones in the Red River Delta and the Southeast, where they compete for large numbers of young workers. Paying above local norms reduces turnover and absenteeism, consistent with efficiency wage arguments (Krueger & Summers, 1988) ^[25]. Third, foreign firms tend to follow corporate pay policies and are more likely to comply fully with regional minimum wages and social insurance contributions, which raises measured income relative to small domestic firms. Fourth, the composition of the workforce matters: FDI employment is younger and more female, and the premium may reflect differences in hours, shift work and formal benefits rather than in hourly pay.

Whatever its sources, the high and rising personnel cost share of FDI firms (7.7 per cent of turnover in 2023) carries a policy signal. Labour-intensive assembly based on low wages is becoming less of a cost advantage for Vietnam. FDI returns on assets fell from 5.9 to 4.2 per cent, and the sector's turnover per worker declined in 2023. Continued wage growth without upgrading toward higher value-added activities would squeeze margins further.

5.3 The domestic private sector: Low pay, thin margins and a large labour share

Non-state firms are the lowest payers but not the stingiest. Their workers absorbed between two-thirds and four-fifths of the combined compensation and profit pool, far more than in SOEs. Their problem is not that owners capture too much; it is that there is little surplus to divide. Turnover per worker in non-state firms is close to the FDI level, but margins are thin, almost half of all firms make losses, and returns on assets fell below 1 per cent in 2023. The capital per worker of non-state firms grew faster than in any other group (72 per cent), yet profit per worker barely rose (4 per cent), which suggests that much of the new capital went into activities with low returns, including real estate and trading, or was absorbed by rising financing costs.

This pattern fits the misallocation view of Hsieh and Klenow (2009) ^[20]: Domestic private firms are numerous and small, often face higher costs of capital and land, and struggle to reach the scale at which productivity and pay rise together. The size-wage gradient reported by the GSO (monthly income of 7.5 million VND in micro firms against 13.0 million in large firms in 2023) suggests that a large part of the non-state pay gap is a size gap.

5.4 Common wage growth across divergent productivity

The near-identical growth of pay across the three groups is perhaps the most policy-relevant finding. Between 2016–2020 and 2023, pay rose by about 34 per cent in each group, while turnover per worker rose by between 42 and 58 per cent and profit per worker by between 4 and 98 per cent. Wage growth seems to have followed a common, economy-wide path rather than each sector's own productivity and profitability.

Several forces could produce such a pattern. Regional minimum wages are adjusted for all employers at once (most recently under Decree No. 38/2022/ND-CP and Decree No. 74/2024/ND-CP) and anchor the lower part of the wage distribution in all ownership groups. Workers move between sectors, which links pay levels through the labour market. And the SOE wage framework ties the wage fund partly to general productivity benchmarks. The result is a pattern of weak rent sharing at the sector level, which contrasts with the strong firm-level rent sharing found in advanced economies (Blanchflower *et al.*, 1996; Card *et al.*, 2018) ^[8, 11]. Where productivity rose fastest, in SOEs, owners captured most of the gain; where it rose slowest, in FDI firms, workers kept a larger share.

This finding should be interpreted with care. Aggregate averages can hide firm-level rent sharing that operates in opposite directions in different industries. But at the level of ownership groups, the data show that pay convergence did not follow productivity convergence.

5.5 Within-sector growth as the main engine

The decomposition shows that aggregate turnover per

worker grew almost entirely through improvements within ownership groups. Reallocation of workers between groups slightly reduced measured productivity because workers moved out of the capital-heavy SOE sector into the labour-intensive FDI sector. This does not mean that the shift was harmful: The workers who moved into FDI firms generally earned more, and the turnover measure understates FDI value added. But it does mean that Vietnam cannot rely on shifting workers from SOEs to other ownership groups to raise aggregate productivity. Future gains must come from upgrading within each group, and above all within the domestic private sector, which employs six in ten enterprise workers and produced the largest within-sector contribution.

6. Policy implications

Five policy implications follow from the findings.

The first concerns SOE capital efficiency. SOEs hold about a fifth of enterprise capital but employ only 6 per cent of enterprise workers, and each unit of their capital generates far less turnover than in private or foreign firms. Continued restructuring should focus on capital productivity, not only on headcount, through hard budget constraints, transparent performance contracts and the divestment of non-core assets. The rising debt-to-equity ratio of SOEs reinforces the case.

The second concerns the SOE wage mechanism. Because SOE pay rose no faster than pay elsewhere while SOE profits nearly doubled per worker, the current framework appears to limit rent sharing effectively. Any reform that loosens wage controls should link pay to verified productivity and capital efficiency, so that higher pay does not simply transfer state profits to employees of firms in protected positions.

The third concerns the domestic private sector, the main target of Resolution 68-NQ/TW. The data suggest that its pay gap is mainly a scale and profitability gap. Measures that help small firms grow (access to credit on equal terms with SOEs, access to land and industrial premises, simplified compliance and support for linkages with FDI supply chains) are more likely to raise wages sustainably than measures aimed directly at pay. The rapid growth of capital per worker without a matching rise in profit indicates that the quality of investment matters as much as its quantity.

The fourth concerns FDI policy. A rising personnel cost share and falling returns in the FDI sector signal that Vietnam's labour cost advantage in assembly is narrowing. Investment promotion should prioritise projects with higher domestic value added, technology transfer and training, in line with the selective approach adopted in recent FDI policy. Better statistical reporting of value added and imported inputs by FDI firms would also help policymakers judge the true productivity of the sector.

The fifth concerns statistics. The GSO already publishes a rich set of indicators by ownership. Publishing value added, hours worked and annual (rather than period-average) values by ownership would allow researchers to measure productivity more accurately and to separate price and volume effects.

7. Conclusion and Limitations

This paper has compared labour productivity and personnel costs across Vietnam's three ownership groups between 2016 and 2023, using only official GSO data and transparent

descriptive methods. The SOE sector shrank in workers but deepened in capital; its high turnover and pay rest on capital intensity and favourable market positions, and its workers receive a premium smaller than either the turnover or the capital premium of their firms. The FDI sector expanded its workforce, paid a premium over domestic private firms that its turnover per worker does not explain, and saw its personnel cost share rise and its returns fall. The domestic private sector paid the least but passed the largest share of its thin surplus to workers. Across all three groups, pay grew at an almost identical rate regardless of productivity, and aggregate productivity growth came almost entirely from improvements within groups.

The study has limitations that suggest directions for future research. The productivity measure is net turnover per worker, not value added, which biases comparisons between groups with different shares of purchased inputs, especially for FDI firms. The data are aggregated by ownership, so the analysis cannot separate the effect of ownership from that of industry, size, location and worker characteristics, and all findings should be read as descriptive associations rather than causal effects. The benchmark design, which compares a five-year average with two single years, smooths annual fluctuations and does not allow annual pay or turnover by ownership to be tracked between 2019 and 2021. Monetary values are nominal, and the deflation used in the discussion is approximate. Finally, the 2023 data reflect a cyclical slowdown and may not represent the trend.

Future research using firm-level enterprise survey data could compute value added per worker, compare firms of the same size and industry across ownership groups, and estimate rent-sharing elasticities directly. Linking enterprise records with labour force survey data would allow the pay premiums to be adjusted for worker skills and hours. Extending the series to 2024 and 2025, once the GSO releases enterprise results for these years, would show whether the patterns documented here persist as the post-pandemic recovery matures.

8. References

1. Abowd JM, Kramarz F, Margolis DN. High wage workers and high wage firms. *Econometrica*. 1999; 67(2):251-333.
2. Aitken B, Harrison A, Lipsey RE. Wages and foreign ownership: A comparative study of Mexico, Venezuela, and the United States. *Journal of International Economics*. 1996; 40(3-4):345-371.
3. Autor D, Dorn D, Katz LF, Patterson C, Van Reenen J. The fall of the labor share and the rise of superstar firms. *Quarterly Journal of Economics*. 2020; 135(2):645-709.
4. Bai C-E, Li DD, Tao Z, Wang Y. A multitask theory of state enterprise reform. *Journal of Comparative Economics*. 2000; 28(4):716-738.
5. Baily MN, Hulten C, Campbell D. Productivity dynamics in manufacturing plants. *Brookings Papers on Economic Activity: Microeconomics*, 1992, 187-267.
6. Berkowitz D, Ma H, Nishioka S. Recasting the iron rice bowl: The reform of China's state-owned enterprises. *Review of Economics and Statistics*. 2017; 99(4):735-747.
7. Bernard AB, Jensen JB. Exporters, jobs, and wages in U.S. manufacturing: 1976-1987. *Brookings Papers on Economic Activity: Microeconomics*, 1995, 67-119.

8. Blanchflower DG, Oswald AJ, Sanfey P. Wages, profits, and rent-sharing. *Quarterly Journal of Economics*. 1996; 111(1):227-251.
9. Bloom N, Van Reenen J. Measuring and explaining management practices across firms and countries. *Quarterly Journal of Economics*. 2007; 122(4):1351-1408.
10. Brown C, Medoff J. The employer size-wage effect. *Journal of Political Economy*. 1989; 97(5):1027-1059.
11. Card D, Cardoso AR, Heining J, Kline P. Firms and labor market inequality: Evidence and some theory. *Journal of Labor Economics*. 2018; 36(S1):S13-S70.
12. Card D, Heining J, Kline P. Workplace heterogeneity and the rise of West German wage inequality. *Quarterly Journal of Economics*. 2013; 128(3):967-1015.
13. Foster L, Haltiwanger J, Krizan CJ. Aggregate productivity growth: Lessons from microeconomic evidence. In C. R. Hulten, E. R. Dean, & M. J. Harper (Eds.), *New developments in productivity analysis* (pp. 303–372). University of Chicago Press, 2001.
14. General Statistics Office of Vietnam [GSO]. *Sách trắng doanh nghiệp Việt Nam năm 2019 [White Book on Vietnamese Enterprises 2019]*. Statistical Publishing House, 2019.
15. General Statistics Office of Vietnam [GSO]. *Sách trắng doanh nghiệp Việt Nam năm 2020 [White Book on Vietnamese Enterprises 2020]*. Statistical Publishing House, 2020.
16. General Statistics Office of Vietnam [GSO]. *Sách trắng doanh nghiệp Việt Nam năm 2025 [White Book on Vietnamese Enterprises 2025]*. Statistical Publishing House, 2025. <https://www.nso.gov.vn/default/2025/11/sach-trang-doanh-nghiep-viet-nam-nam-2025/>
17. Hansen H, Rand J, Tarp F. Enterprise growth and survival in Vietnam: Does government support matter? *Journal of Development Studies*. 2009; 45(7):1048-1069.
18. Heyman F, Sjöholm F, Tingvall PG. Is there really a foreign ownership wage premium? Evidence from matched employer–employee data. *Journal of International Economics*. 2007; 73(2):355-376.
19. Hijzen A, Martins PS, Schank T, Upward R. Foreign-owned firms around the world: A comparative analysis of wages and employment at the micro-level. *European Economic Review*. 2013; 60:170-188.
20. Hsieh C-T, Klenow PJ. Misallocation and manufacturing TFP in China and India. *Quarterly Journal of Economics*. 2009; 124(4):1403-1448.
21. Hsieh C-T, Song Z. Grasp the large, let go of the small: The transformation of the state sector in China. *Brookings Papers on Economic Activity*, 2015(Spring), 2015, 295-346.
22. Karabarbounis L, Neiman B. The global decline of the labor share. *Quarterly Journal of Economics*. 2014; 129(1):61-103.
23. Kornai J. The soft budget constraint. *Kyklos*. 1986; 39(1):3-30.
24. Kornai J, Maskin E, Roland G. Understanding the soft budget constraint. *Journal of Economic Literature*. 2003; 41(4):1095-1136.
25. Krueger AB, Summers LH. Efficiency wages and the inter-industry wage structure. *Econometrica*. 1988; 56(2):259-293.
26. Lipsey RE, Sjöholm F. Foreign direct investment, education and wages in Indonesian manufacturing. *Journal of Development Economics*. 2004; 73(1):415-422.
27. Malesky EJ, Taussig M. Where is credit due? Legal institutions, connections, and the efficiency of bank lending in Vietnam. *Journal of Law, Economics, and Organization*. 2009; 25(2):535-578.
28. McMillan M, Rodrik D, Verduzco-Gallo Í. Globalization, structural change, and productivity growth, with an update on Africa. *World Development*. 2014; 63:11-32.
29. Megginson WL, Netter JM. From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*. 2001; 39(2):321-389.
30. Melitz MJ. The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica*. 2003; 71(6):1695-1725.
31. Newman C, Rand J, Talbot T, Tarp F. Technology transfers, foreign investment and productivity spillovers. *European Economic Review*. 2015; 76:168-187.
32. Shleifer A, Vishny RW. Politicians and firms. *Quarterly Journal of Economics*. 1994; 109(4):995-1025.
33. Syverson C. What determines productivity? *Journal of Economic Literature*. 2011; 49(2):326-365.
34. Van Reenen J. The creation and capture of rents: Wages and innovation in a panel of U.K. companies. *Quarterly Journal of Economics*. 1996; 111(1):195-226.
35. World Bank & Ministry of Planning and Investment of Vietnam. *Vietnam 2035: Toward prosperity, creativity, equity, and democracy*. World Bank, 2016.