

Decoding Vietnam's economic miracle

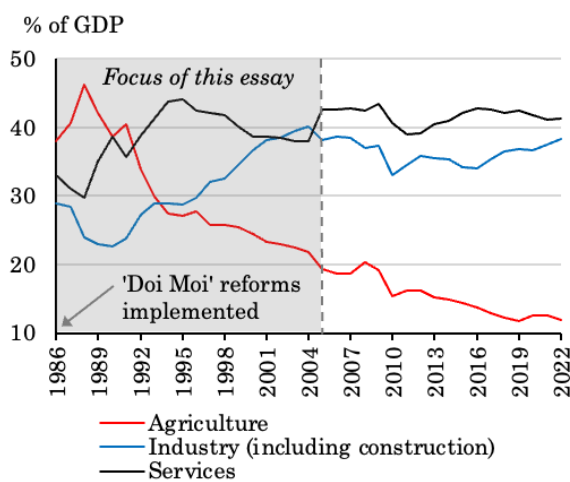
Structural change in Vietnam: The 'Doi Moi' era (1986 - 2005)

Introduction

A tiger cub now supposedly on the cusp of adulthood, Vietnam has been deemed an economic miracle, manufacturing powerhouse, and Asia's 'next tiger economy' (Barker and Üngör 2019). Once one of the world's poorest countries, Vietnam's one-generation transformation may provide valuable insights for other emerging economies. To examine this, this essay traces back to the origins of Vietnam's economic turnaround.

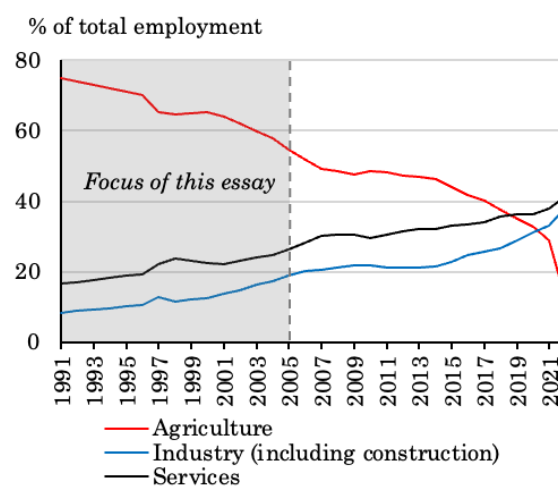
In response to poor economic conditions during the 1980s, the 'Doi Moi' (renovation) reforms were initiated in 1986 and continued until 2005, aiming to transform the centrally planned economy to a market-based one (Anh, Duc and Chieu 2014). This essay focuses on these two decades (1986-2005), a period of rapid structural change (Figures 1 and 2): agriculture's share of GDP fell from 38% to 19%, while industry rose from 2% to 38% (services also grew on aggregate, but not continually, so is not focused on). This essay discusses both agricultural (section A) and enterprise (section B) policies which drove this structural change.

Figure 1. Sectoral shares of (value added in) GDP (1986-2022)



(World Bank and OECD national accounts 2022)

Figure 2. Sectoral shares of employment (1991-2022)



(World Bank and ILO modelled estimates 2021)

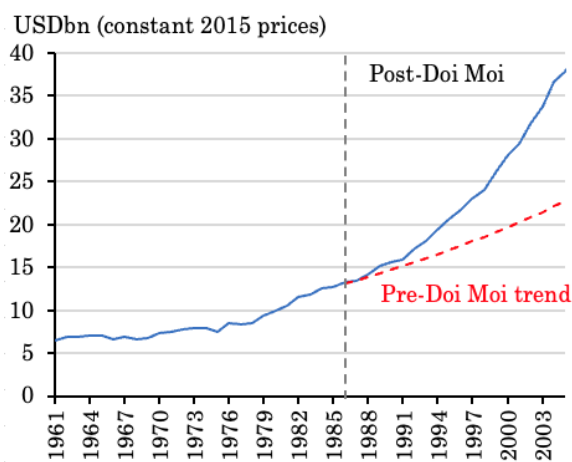
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Section A: Agricultural policies

Policies 1 and 2: Eliminating price controls and export quotas

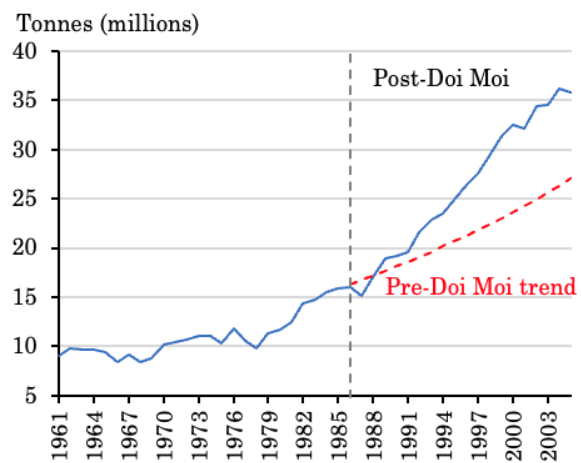
Originally, quotas heavily limited agricultural exports, managed by select state-owned firms paying farmers a fixed price (less than the world price) for products (Baum 2020). Doi Moi dismantled this system. Price controls were eliminated - farmers could sell for profit (Baum 2020), which stimulated agricultural production (Figure 3). Rice export quotas were removed, increasing rice production specifically (Figure 4). Export promotion was further upheld by Vietnam's broader trade liberalisation strategy, which involved joining free trade agreements such as ASEAN in 1995 (Baum 2020).

Figure 3. Agricultural output (1961-2005)



(Calculations based on Our World in Data and USDA 2019)

Figure 4. Rice production (1961-2005)

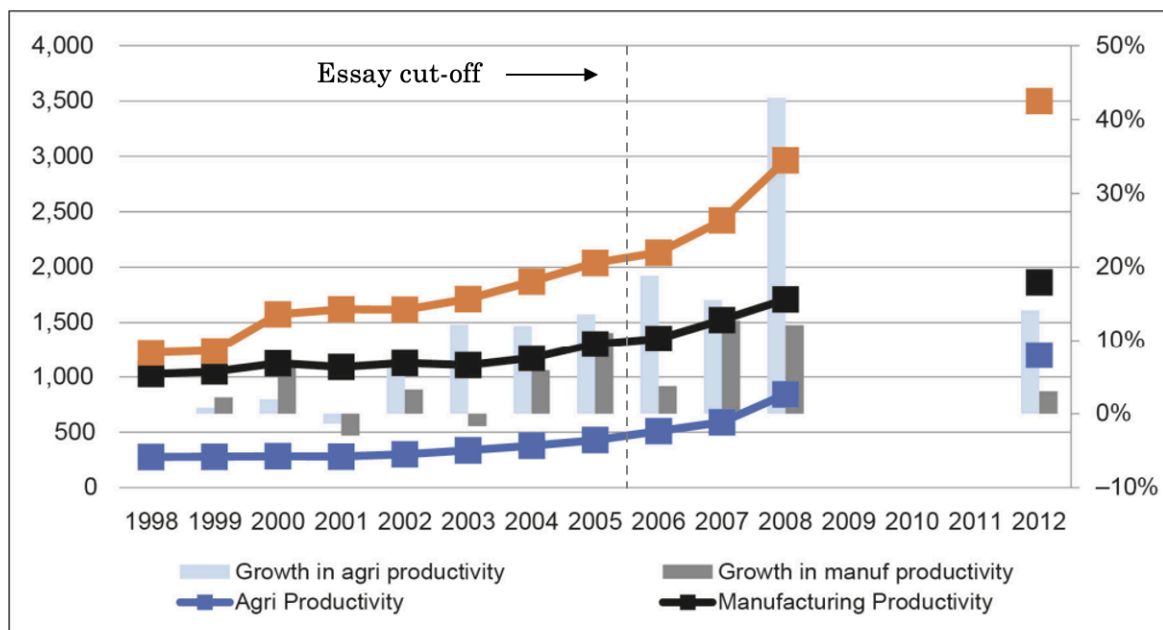


(Calculations based on Our World in Data and FAO 2021)

In under two decades, these policies entirely shifted Vietnam from subsistence agriculture to exploitation of its comparative advantage (McCaig and Pavcnik 2013). Increased prices and quantities of agricultural production led to higher revenues, boosting farmers' incomes: Doanh (2015) estimates a 150-300% increase in agricultural earnings during Doi Moi. This rise in income drove structural change through two broad channels.

Firstly, rising incomes are typically accompanied by shifts in consumer demand, causing a fall in agriculture's share of consumption and a rise in manufacturing and services (ILO 2023), pulling labour away from agriculture (Ortiz-Ospina and Lippolis 2017). This is supported by agriculture's tendency for relatively low productivity amongst economic sectors in developing countries (Gollin, Lagajos and Waugh 2014). Sarma, Paul and Wan (2017) confirm this trend in Vietnam through quantitative productivity estimates (Figure 5). As rising incomes incentivise growth of labour demand in manufacturing, higher productivity (and wages) in manufacturing incentivise workers to shift labour supply away from agriculture.

Figure 5. Sectoral productivity (share of GDP/share of employment by sector, USD, PPP) (1998-2012)



GDP = gross domestic product; PPP = purchasing power parity.

Source: World Development Indicators and McCaig and Pavcnick (2013).

(Sarma, Paul and Wan 2017)

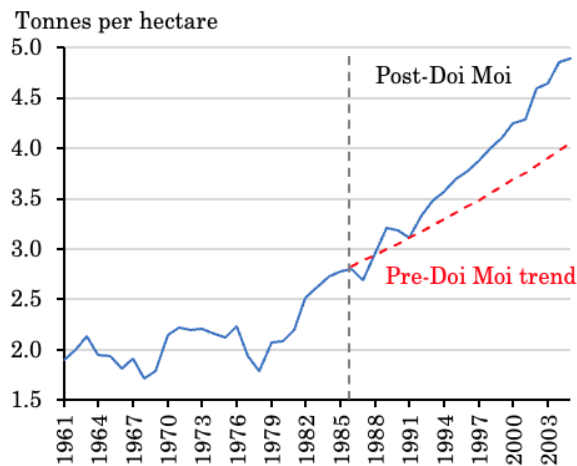
Note: Chart data unavailable for 1986-1997

Though quantitative studies focused on Vietnam are limited, general empirical studies have tested this channel of structural change. Clark (1940) statistically established a rise in the income share spent on manufacturing during early stages of economic development, assuming a lower relative income elasticity for agriculture. This study was, however, criticised for inadequately distinguishing income effects from other drivers of structural change (Van Neuss 2018). Świącki (2017) attempted to overcome this by building a quantitative model distinguishing between four theoretical mechanisms driving structural change. Results suggests that, on average, income effects are unimportant, but that in early stages of development, they are crucial in driving labour out of agriculture, particularly in poorer countries (aligning with Clark's findings).

A second channel through which agricultural reforms drove structural change is efficiency and technical changes. The prospect of profitability incentivised farmers to increase efficiency, whilst increased incomes allowed reinvestment in agricultural technologies. Jointly, these process innovations facilitated improvements in agricultural yields and broader productivity (Figures 5 and 6). Vu and Nyugen (2021) decomposed agricultural productivity, finding that technical changes contributed to 24.4% and efficiency changes to 14.4% of total factor productivity (TFP) from 1985 to 2000. Overall, although agricultural output grew in

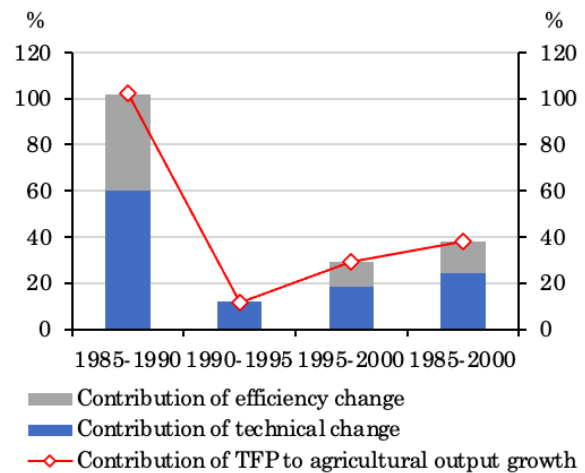
absolute terms, production required less labour, pushing a relative shift in employment towards other sectors.

Figure 6. Rice yields (1961-2005)



(Calculations based on Our World in Data and FAO 2021)

Figure 7. Composition of agricultural TFP growth (1985-2000)



(Vu and Nyugen 2021)

Note: Chart data unavailable for 2001-2005

While discussed policies increased absolute agricultural productivity, it remained relatively below manufacturing (Figure 5). Moreover, increased agricultural productivity outpaced output growth, reducing labour demands, whilst the opposite occurred in manufacturing (Sarma, Paul and Wan 2017). Consequently, relative output and employment shifted from agriculture to manufacturing.

Section B: Enterprise policies

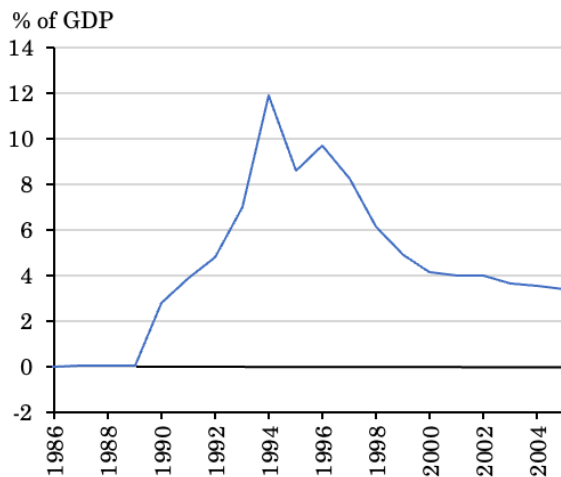
Policies 3 and 4: Allowing complete foreign ownership of firms and establishing export processing zones

Beyond agricultural reforms, enterprise reforms played an (arguably more) important role in driving structural change. Notably, Doi Moi prioritised stimulating Vietnam's limited foreign direct investment (FDI) inflows. One policy facilitating this was allowing 100% foreign ownership of manufacturing firms, enticing foreign investors to capitalise on Vietnam's low-cost labour and relocate production (Sarma, Paul and Wan 2017).

A second policy amplifying this was the establishment of export processing zones (EPZs), offering tax incentives and duty exemptions to foreign firms to promote manufacturing exports (Anh, Duc and Chieu 2014). By reducing production costs, EPZs further incentivised relocation of foreign manufacturing firms. Data confirms a sharp uptake in FDI inflow

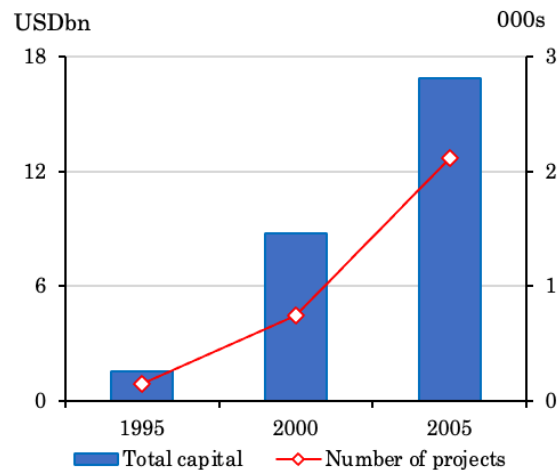
following these policies, though it later slowed (Figure 8), while FDI investments and projects in EPZs continuously grew (Figure 9).

Figure 8. Net inflows of foreign direct investment (1986-2005)



(World Bank, IMF and OECD 2022)

Figure 9. FDI projects in industrial zones and export processing zones (1995-2005)



(MPI Review 2016, Wahyuni 2019)

By encouraging FDI inflows, these policies rapidly expanded the manufacturing sector, pulling labour away from agriculture. Since, as previously cited, manufacturing offered higher returns given relatively higher productivity, workers were also willing to move.

Emako, Nuru and Menza (2022) employ economic modelling to test the effect of FDI on structural change in developing countries, including Vietnam in their panel dataset spanning (an extended period of) 1990-2018. They find that FDI inflows have a positive significant impact on structural change, supporting previous discussion. However, they note this effect hinges on FDI fostering output and employment growth in manufacturing and services. This explains their contradiction to other studies (e.g. Oduola et al. 2021, Maroof et al. 2018) which find no such positive impact, but cite a lack of incentives attracting FDI to manufacturing. In Vietnam, however, repeated statistics and surveys confirm FDI inflows concentrated in manufacturing (Nguyen, Nyugen and Meyer 2004), likely attributed to discussed policies which were specifically tailored to manufacturing.

Generally speaking, FDI-driven structural change may involve an additional causal chain. FDI inflows could trigger increased technological transfers and knowledge spillovers from foreign firms, accelerating productivity amongst local manufacturers and reinforcing the agriculture-manufacturing productivity gap. However, this appears irrelevant to Vietnam as various studies indicate Vietnam's failure to capture such benefits, instead highlighting the

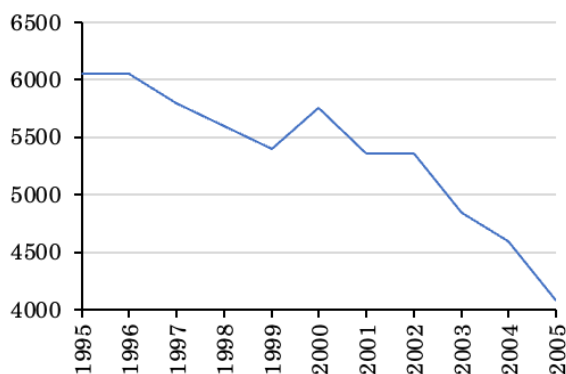
country's 'high degree of economic dualism,' (Baum 2020), i.e. the lack of integration between FDI and the local economy.

Policy 5: Eliminating budgetary subsidies to state-owned enterprises (and wider supporting reforms)

A final key policy of Doi Moi was the hardening of budget constraints on state-owned enterprises (SOEs). Prior to Doi Moi, Vietnam's manufacturing sector was primarily run by SOEs (Sarma, Paul and Wan 2017). Doi Moi aimed to change this, given the widely acknowledged inefficiency and competitiveness of SOEs relative to private enterprises (Hai and O'Donnell 2017). Policymakers therefore devised various reforms targeting SOEs, including the abolishment of budgetary subsidies (Srinivasan et al. 1996).

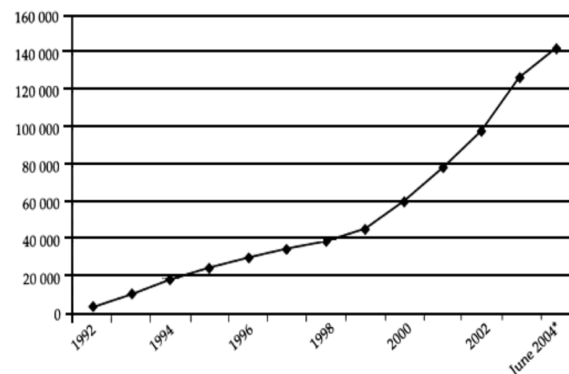
Removal of subsidies exposed and ousted inefficient SOEs who were unable to compete in the free market, further amplified by a broader shift towards privatisation of SOEs (termed 'equitisation') in Vietnam at the time (Sarma, Paul and Wan 2017). Overall, the number of SOEs fell starkly after the start of Doi Moi (Figure 10), whilst establishment of new private enterprises surged (Figure 11). As an increasing share of manufacturing was captured by the private sector, productivity and wages in manufacturing grew, incentivising workers away from agriculture and thus driving structural change (Sarma, Paul and Wan 2017).

Figure 10. Number of SOEs (1995-2005)



(Nguyen 2020, GSO, MPI, and MOF 2011)
 Note: Chart data unavailable for 1986-1994

Figure 11. Growth in registrations of private enterprises (1992-2004)



(Son et al. 2006, SME VN 2005)
 Note: Chart data unavailable for 1986-1991

A particular manufacturing industry exemplifying growth and structural change as a result of the discussed enterprise policies is Vietnam's garments and textiles industry. Prior to Doi Moi, over half of the industry was owned by SOEs (Nadvi et al. 2003). Following Doi Moi policies, the industry quickly shifted away from SOE ownership (Figure 12). Further

supported by the trade liberalisation movement, output and employment in the industry flourished, pulling workers out of agriculture. This was led by export-driven growth - after years of negative net exports of garments and textiles, the figure turned positive in 2004 and remained so since (Tran 2012).

Figure 12. Vietnam's garments and textiles industries: output by type of ownership (%)

(%)	Garments		Textiles	
	<u>1995</u>	<u>2001</u>	<u>1995</u>	<u>2001</u>
State	34.8	31.7	56.8	48.5
Non-state, domestic	47.1	43.2	25.9	23.3
Non-state, FDI	18.2	25.1	17.3	28.2

(Nadvi et al. 2004, GSO 2001)

Conclusion

This essay evaluates key policies which cumulatively drove a pivotal period of structural change in Vietnam's history - the Doi Moi era (1986-2005), characterised by a relative shrinkage of agriculture alongside a manufacturing boom. Main agricultural policies included elimination of price controls and export quotas, which increased agricultural incomes and stimulated demand and growth of non-agricultural sectors, namely manufacturing. Moreover, potential for profitability incentivised efficiency and technical changes which boosted agricultural productivity, outpacing output growth, and thus reducing the share of workers required in agriculture. Key enterprise policies included permitting complete foreign ownership of manufacturing firms, and establishing export processing zones with preferential policy terms for foreign manufacturing firms. These policies attracted FDI inflows to the manufacturing sector, driving growth in sectoral output and employment. A final key policy was the abolishment of budgetary subsidies to SOEs, which ultimately increased private sector involvement in manufacturing activities and boosted both productivity and output, thus pulling employment away agriculture.

Looking at Vietnam's current status as a manufacturing powerhouse, it is hard to believe it was once one of the world's most highly agrarian and poorest countries. But it is precisely this which makes this essay and the evaluated policies of wider value - perhaps some of these policies could be applied to similarly transform today's low-income, agriculture-intensive economies. However, a common theme throughout this essay is the intertwinement of policies - though they are mostly discussed individually, many drove structural change in similar ways, e.g. through reinforcing sectoral productivity gaps. This

begs the question of how effective one policy may have stood in isolation, and is an important future consideration for any economies looking to adopt Vietnam's policy model - is picking and choosing policies enough, or will they need their own carefully cumulated 'Doi Moi' package of policies? This essay suggests the latter.

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