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VIETNAM'S FUTURE JOBS

LEVERAGING MEGA-TRENDS FOR GREATER PROSPERITY

OVERVIEW

Wendy Cunningham
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Vietnam's Future Jobs: Leveraging Mega-trends for Greater Prosperity Overview summarizes an extensive analytical exercise that is detailed in the report *Vietnam's Future Jobs: Leveraging Mega-trends for Greater Prosperity*. All the material in this Overview document, unless otherwise cited, is presented in detail in the full report, including data sources, full citations, and complete analysis and interpretation.

The full report includes the following chapters:

- Chapter 1: Vietnam's Labor Market Now and in the Future (Obert Pimhidzai)
- Chapter 2: Shaping Vietnam's Agriculture and Food System to Deliver Jobs (Sergiy Zorya, Steven Jaffee, Nguyen Do Anh Tuan, Truong Thi Thu Trang, Nguyen Le Hoa, and Nguyen Thi Thuy)
- Chapter 3: Enterprise Dynamics and Job Flows (Mary Hallward-Driemeier and Reyes Aterido)
- Chapter 4: Workers and Jobs – Current Trends and Emerging Opportunities (Wendy Cunningham)
- Chapter 5: The Pathway to Future Jobs (Wendy Cunningham)

Several background papers were also prepared to inform the report. They are cited in the chapters where their results are presented.

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PREFACE

Jobs have been a fundamental part of Vietnam’s rapid transformation to a modern, globally integrated, middle-income country. *Doi Moi* – the economic reform program that was launched in 1986 - not only changed Vietnam’s economic structure, but it also had deep implications for jobs, and these jobs were themselves a key input to the economic reform process. In 1986, most workers were engaged in agricultural production, with a small share laboring in state-owned enterprises. Today, less than half of jobs are in agriculture and a heterogeneous private-sector driven jobs sector has grown up. Job quality has not evolved as quickly, with the majority of jobs still being low productivity, low-paid, and lacking social benefits or worker protection.

The world is on the cusp of new opportunities that could further shift Vietnam’s jobs picture. The rise of the Asian consumer class especially in China, a shift toward knowledge economies, new trade partners and patterns, automation in the workplace, and aging all threaten Vietnam’s current jobs structure. They also offer opportunities.

At the invitation of the Government of Vietnam, the World Bank produced the report “*Vietnam’s Future Jobs: Leveraging Mega-trends for Greater Prosperity*” to explore the new challenges and opportunities facing Vietnam and to share policy reforms that could be a catalyst for more – and better – jobs. This work is aligned with the World Bank Group’s FY18-22 Country Partnership Framework, which emphasizes inclusive growth and investment in people and knowledge and highlights the importance of jobs for continued economic growth and poverty reduction. The report “*Vietnam’s Future Jobs: Leveraging Mega-trends for Greater Prosperity*” builds on “*Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy*” a publication developed as a partnership between the Government of Vietnam and the World Bank Group, which lays out a long-term vision for Vietnam’s growth and development. “*Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy*”, together with a series of studies that the World Bank has prepared covering topics of agricultural and rural development, private sector development, and skills development, present pieces of the jobs story. This study is the first that pulls together the viewpoints of specialists in poverty, macroeconomics, trade, private sector development, gender, education, and labor—thereby painting a unified and comprehensive jobs picture.

The report identifies three reform areas that will be particularly important to capture the jobs-related opportunities offered by a changing economic and social context. *First*, create more jobs in specific segments of the modern sector, namely via Vietnam’s small and medium enterprises, agro-industry, and value chains. *Second*, enhance the quality of jobs in the traditional sectors. Family farming and household enterprises will be a part of the jobs landscape for many decades and much can be done to increase the quality of these jobs. *Third*, connect qualified workers to the right jobs. This will require overhauling the education and training sectors to meet the 21st century, as well as a range of other support for workers to shift jobs and skills as economic and social context change ever more rapidly.

We hope that “*Vietnam’s Future Jobs: Leveraging Mega-trends for Greater Prosperity*” serves to inspire and connect policymakers, the private sector, and development partners to pursue the multi-faceted jobs challenge in the context of a changing world towards further prosperity and equity for Vietnam.

Ousmane Dione
World Bank Country Director for Vietnam

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ABBREVIATIONS AND ACRONYMS

ASEAN	Association of Southeast Asian Nations
BPO	Business process outsourcing
CPTPP	Comprehensive and Progressive Agreement for Tran-Pacific Partnership
ESC	Employment Service Center
FDI	Foreign direct investment
GDP	Gross Domestic Product
GSO	Government Statistics Office
GVCs	Global value chains
HACCP	Hazard Analysis and Critical Control Points
IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development
IT	Information Technology
LFS	Labor Force Survey
LMIS	Labor Market Information System
LTC	Long Term Care
M&E	Monitoring and Evaluation
MNCs	Multi-national corporations
MOET	Ministry of Education and Training
MOLISA	Ministry of Labor, Invalids, and Social Affairs
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
PPP	Public Private Partnership
R&D	Research and Development
SMEs	Small and medium enterprises
SOEs	State-owned enterprises
STEP	Skills Toward Employability and Productivity survey
VARHS	Vietnam Agriculture and Rural Household Survey
VET	Vocational Education and Training
VHLSS	Vietnam Household Living Standards Survey
VND	Vietnamese dong
VNSCO	Vietnam Standard Classification of Occupations
WTO	World Trade Organization

CURRENCY EQUIVALENTS

(Exchange Rate Effective January 25, 2018)

Currency Unit = Vietnam Dong (VND)

US\$ 1 = VND 22,710.75581

EXECUTIVE SUMMARY

Vietnam's 50 million jobs are a cornerstone of its economic success. The transformation toward services and manufacturing, and impressive labor productivity and wage growth led to plunging poverty rates and globally enviable economic growth over the last decades. Employment rates are high and unemployment rates are low by global standards.

The jobs challenge is to create more high quality and inclusive jobs. Shiny foreign factories paying above the minimum wage and offering social benefits typify, at best, only 2.1 million jobs. And registered domestic firms provide no more than 6 million jobs. **Meanwhile, 38 million Vietnamese jobs are in family farming, household enterprises, or uncontracted labor.** These traditional jobs tend to be characterized by low productivity, low profits, meager earnings, and few worker protections. While they have been a path out of poverty, they will not provide the means to reach the middle-class status that Vietnam's citizens aspire to. Ethnic minorities, women, and unskilled workers cluster in these jobs.

Transformational mega-trends may either create better job opportunities or threaten the quality of Vietnam's jobs. *Shifting trade and consumption patterns* will affect what Vietnam can export and in which value chains it can, or cannot, continue to be engaged. The *rise of the global knowledge economy* may provide new high-value jobs but will require a different skill set and export model than Vietnam currently uses. An *aging* population will demand care services from a shrinking working age population. *Automation* will replace jobs if workers are not equipped to use technology to their benefit. Together, these factors portend a tilt toward higher quality jobs, but only if firms, farms, and workers are prepared to take on these new opportunities.

The policy challenge is to capture the mega-trends so that Vietnam's jobs of the future are higher value-added, more productive, better paid and provide better opportunities to workers. As history shows us, economic growth is not enough to transform the jobs picture. Instead, a proactive set of policies is needed. This report identifies a narrow set of reforms areas for firms, farms, and workers that should be the focus of policy to improve job quality in Vietnam. It is not intended to be prescriptive, but instead to narrow down a complex challenge into a few actionable priority areas.

What Will Vietnam's Future Jobs Look Like?

If Vietnam continues to focus its efforts on attracting foreign direct investment in low-skilled assembly jobs, its future jobs will look a lot like today's jobs. If the current rate of transformation from family farms and enterprises to jobs that are covered by labor contracts continues for the next 20 years, contracted wage jobs would increase from 24 percent of jobs to 43 percent by 2040. These jobs would continue to be in low value-added activities, with related low per-unit profit and minimum wage-level jobs with limited opportunities for worker advancement. Family farming and household enterprise jobs would still account for more than half of all jobs in Vietnam in 2040.

Mega-trends could disrupt the future jobs picture, improving job quality in some sectors while expanding poor quality jobs in others. Or, current constraints may limit Vietnam's ability to capitalize on these new opportunities. Specifically:

More jobs will be associated with local, regional, and global value chains because of the growing consumer class both in Vietnam and the region,

increasing urbanization, the emergence of regional value chains, and Vietnam's reputation as a solid link in global value chains. This may come about because current jobs become linked to value chains (for example, family farms selling to retailers) or through the creation of new jobs in response to new markets. The low skill-level of the workforce and the emergence of regional competitors may hinder Vietnam's movement into more lucrative value chains or higher value jobs within value chains.

Small- and medium-sized Vietnamese-owned firms will continue to create good jobs, though possibly less successfully than today. Even though many of today's economic policies favor foreign investors and state-owned enterprises (SOEs), small- and medium-sized domestically owned firms were the largest source of new contracted wage jobs in the past decade, expanding by more than 5 percent. If foreign firms continue to operate in enclaves with little connection to the broader economy, and as Vietnam moves into more sophisticated segments of value chains, job creation by domestic firms could be further constrained.

Job quality in the modern sector will improve if Vietnam shifts toward higher value-added production activities. Contracted wage jobs are more productive and pay better than traditional, uncontracted jobs. However most of Vietnam's modern jobs are in low value-added manufacturing. The global shift toward knowledge-intensive production processes and complex value chains, can be an opportunity to create high quality, modern jobs in Vietnam.

Rural jobs will continue to become more diverse, with the development of rural manufacturing and services. Already, 4 of every 5 rural household derives at least some of their income from off-farm activities. Increasing mechanization will reduce the agricultural workforce who will take up off-farm jobs. This transformation could lead to better jobs if driven by the development of food chains to serve increasingly affluent urban Vietnamese consumers and the continued expansion of

agricultural product exports to higher value regional markets.

The household enterprise sector will persist. With urbanization, helped by the relaxation of restrictions on internal migration (*ho khau*) and increasing demand for services by urban consumers, the household enterprise sector is likely to grow. Jobs quality will likely remain low quality if household enterprises continue to operate at the margins of the formal economy.

Automation will slowly begin to change the tasks in some jobs and (even more slowly) displace jobs. At first, technology will free up labor, allowing low-skilled workers to produce higher-value products. As educated new labor force entrants continue to raise the skill levels of the workforce, disruptions will be delayed. However, in the longer term, as labor costs increase while the cost of technology decreases, machines will start to replacing humans, thus reducing the number of available jobs.

The limited skill level of Vietnam's workforce will hinder the emergence of good jobs. Today's young people have a strong foundational set of skills, but the workforce as a whole has low levels of education and severe skill gaps. The growth of knowledge-intensive exports, the service industry, and automation will be hindered by a labor force that lacks a range of sophisticated skills and the means to upgrade their skills over their lifetimes.

Job search will need to be done more often. The expansion of modern firms will provide job opportunities that are less dependent on personal connections. Job turnover will become more frequent as a result of both the structural transformation of the economy and fluctuations in firm size. This increase in turnover will be offset by technology-enhanced job search. But more marginal populations will be left behind.

Future jobs will be more inclusive for some, but more of a challenge for others.

Young people are already benefitting from the onset of these mega-trends. Although

youth have higher unemployment rates than the national average, working youth tend to be in better jobs than older workers; the share of youth working in wage jobs in the private domestic and foreign sectors is higher than their share of the working population. However, a substantial number of less skilled youth employed in low-quality wage jobs is likely to persist.

Women may benefit from the expansion of export-oriented jobs and the emergence of a care economy to provide services to an aging population. On the other hand, the aging of the population may impose time demands on women that push them into worse jobs or out of the labor market entirely.

Aging workers who did not benefit from the good education system that Vietnam has today are likely to struggle as jobs become more skills-biased.

Ethnic minorities may not be able to take advantage of the emerging new jobs because of their location in remote communities and the limited existence of service and manufacturing jobs in their home villages.

How to Make Future Jobs Better and More Inclusive?

Vietnam can make its future jobs better and more inclusive if firms, farms, and workers seize opportunities and find ways to minimize downside risk of these future trends. This would entail complementing efforts to attract higher value-added foreign direct investment with new efforts to foster an innovative, dynamic domestic firm sector; incorporate largely excluded economic sectors and people into the economy; and generate a lean and smart labor force to create and work in higher value-added jobs. Eight policy focus areas and multiple policy directions that define the “how to”, underlie these reform areas. While the policies may look familiar, they have been selected out of a long list of sectoral policies; these eight focus areas offer the best chance for better and more inclusive jobs.

Reform Area 1: Creating More Good Jobs in the Modern Sector

Jobs-friendly segments of the modern sector can be a significant source of new good jobs. The best jobs, defined by higher labor productivity and wages and social benefits, are largely in the modern sector. They are also inclusive of women and youth. These are the fastest growing jobs in Vietnam today and, if Vietnam prepares for the opportunities brought through the mega-trends, they have potential to grow, in quantity and quality, even more. Thus, the policy challenge is to foster the creation and growth of enterprises that are conducive to job creation, create high value jobs, and position Vietnam for even more as the mega-trends are realized. Three policy areas are proposed:

- (i) lower the barriers to growth of domestic small and medium enterprises.
- (ii) encourage enterprises to move into knowledge-intensive segments of regional and global value chains.
- (iii) facilitate the development of Vietnam’s agro-food system.

Reform Area 2: Enhancing the Quality of Jobs in the Traditional Sectors

Jobs in family farming (and related primary production) and household enterprises can be improved by integrating them into the broader economy. These jobs will be a significant part of the economy for many years so they cannot be ignored. They are overwhelmingly the source of employment for ethnic minorities, older workers, and the less educated, thereby being intricately linked to poverty reduction. Two policy areas are proposed:

- (i) Encourage the agricultural sector to diversify into high value-added crops and local value chains.
- (ii) Facilitate business links between household enterprises and SMEs.

Reform Area 3: Connecting Qualified Workers to the Right Jobs

Workers need different skills and a range of other supports to effectively engage in today’s jobs and to be ready for the demands of tomorrow’s jobs.

While Vietnam's youth are globally recognized for secondary school test scores that rival those of European students, most of Vietnam's labor force has, at best, incomplete secondary school and limited skills. The skills shortages observed today will be exacerbated as mega-trends begin to affect the jobs pictures. Even workers with the right skills do not have sufficient information about job openings, employers do not have good information about worker quality, social norms limit job options, and income constraints prevent skill upgrading or moving to more appropriate jobs. Three policy areas are proposed:

- (i) build skills for XXIst century jobs through radical reforms to the education and training system,
- (ii) generate and provide information to fit the right workers into the right jobs,
- (iii) provide auxiliary services to facilitate labor participation and labor mobility.

A Coordinated Strategy for Better Jobs

A jobs strategy would visualize jobs goals and coordinate multi-sectoral action to reach those job goals. The current jobs strategy - that better jobs will emerge from solid economic and sectoral development strategies – has had success.

This report argues that greater gains are possible through a deliberate jobs strategy that focuses on our eight policy reform areas. This will require defining targets for future jobs and monitoring progress toward them; engaging, and holding accountable, a range of government and private sector actors; and leadership by a coordinating body to champion the jobs issue and guide the many actors toward a shared future jobs vision.

The future for Vietnam's jobs is bright if Vietnam begins to prepare today for this future.

The country can continue on its current path, which will yield job increases, but these will diminish as global trends erode some of Vietnam's comparative advantage as certain groups are left further behind. The government could reform on the margin in an effort to keep up with changing global trends, but this will become difficult as the global economy becomes increasingly crowded by new entrants. Or Vietnam could make some big investments now – in its domestic firms and farms, its labor force, regional and global trade networks, and even in integrating its own economy. These investments would enable Vietnam to leap forward to higher economic status and would yield better and more inclusive jobs for all its citizens.

INTRODUCTION

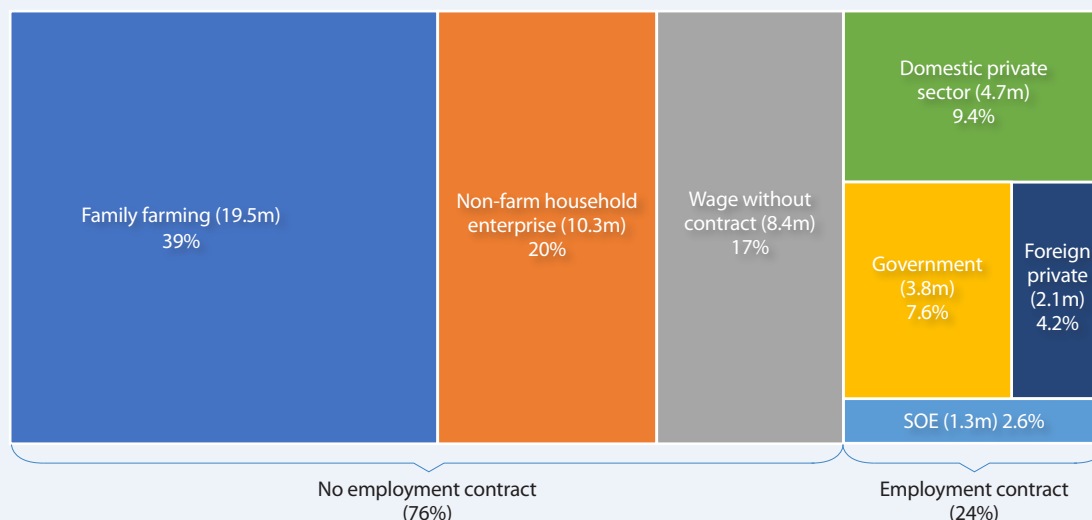
Vietnam's market-based economy with a socialist orientation has served it well over the past three decades.¹ Its rapid embrace of markets and integration into the global economy resulted in annual per capita GDP growth rates of 5.5 percent between 1990 and 2016, higher than any country in the world except China during that period.² On the social side, extreme poverty has nearly been eliminated with poverty rates having plunged from 60 percent to 10 percent over a single generation, while a middle class has begun to emerge.³ By 2015, Vietnam had converted itself from one of the poorest countries in the world into a lower middle-income, modernizing, globally integrated paradigm of economic development.

These successes were driven by several factors that rapidly changed the jobs picture. Exports grew rapidly, driven by foreign direct investment (FDI) that was attracted by a stable government, competitive incentives for investing, an abundant labor force adept at low-skilled assembly and manual work, and external factors such as well-developed regional production networks and the China Plus One strategy employed by multinational corporations (MNC). The manufacturing and services sectors increased their contribution to GDP, and some segments of the agricultural sector boomed.⁴ The coverage and quality of education improved significantly during the period, and by 2012, Vietnamese high school students had scores well above the OECD average on the PISA (Programme for International Student Assessment) tests for math, reading, and science.⁵ These developments gave a big boost to productivity across the economy. Total factor productivity growth – including labor productivity – was the main driver of Vietnam's high economic growth in the 1990s and early 2000s. While in 1986 jobs in Vietnam were characterized almost entirely by family farming, collectives, and state-owned

enterprises (SOEs), by 2016, only a small share consisted of full-time agricultural.

In spite of these transformations, most jobs in Vietnam are still in small-scale modes of production, are of low quality, and are not fully inclusive. The celebrated FDI sector is directly responsible for 2.1 million of Vietnam's 50 million jobs, which are defined in this report as income (or in-kind) earning activities that are not prohibited by law. Registered domestic private enterprises and SOEs employ another 6 million workers, while 3.8 million are in public sector (non-SOE) employment. However, three out of four jobs in Vietnam are either in family farming (39 percent), household enterprises (20 percent), or employment without a contract (17 percent) (Figure 1). By the very nature of these jobs, many are low-productivity⁶ and low-paid, lack social benefits, and have little or no job security. Even many jobs in registered firms, which generally provide job security and social benefits, are low value-added jobs with few chances for workers to advance into better jobs. Some population groups such as women, ethnic minorities, and youth face even greater challenges. The unpaid home care economy, which is dominated by women, continues to be unaccounted for in labor statistics.⁷

Nevertheless, Vietnam is in a good position to create more good and inclusive jobs by further capitalizing on its current economic development model while embracing opportunities offered by emerging mega-trends in the global economy. The current FDI-led model is still going strong, attracting higher levels of foreign investment each year and enabling Vietnam to outpace its regional competitors.⁸ The private domestic sector has the potential to continue expanding and to move into higher value-added activities, while the small-scale economy can better integrate into

FIGURE 1: A picture of jobs in Vietnam in 2015

Source: Author's calculations from the GSO's 2015 Labor Force Survey (LFS) data.

Notes: The size of each box is proportional to the share of the labor force working in each job type. The "wage" employees are divided into five sub-groups: wage jobs without a contract and four groups that work with a contract: government, SOE, domestic private, and foreign private. In this breakdown, wage workers working for family farms or non-farm household enterprises are classified under "wage worker." Nearly all such workers have no contract.

the economy at-large. Vietnam has an increasingly educated labor force and is relaxing constraints to internal migration (*ho khau*). Several emerging mega-trends in the global economy will affect the composition of jobs: (i) a growing consumer class in Vietnam and East Asia; (ii) shifting trade patterns; (iii) an aging population and a slowdown in the growth of the workforce; (iv) the rise of the knowledge economy; and (v) increasing automation and digitalization of production processes and services. These trends could be a threat to Vietnam's future jobs or they could be the key to creating better and more inclusive jobs if policymakers take steps now to leverage them to Vietnam's advantage.

The Vietnam Future Jobs report is designed to identify a narrow set of reform areas that should be the focus of policy to create more good jobs in Vietnam. It analyzes jobs from the perspective of the agricultural sector, the firm sector, and workers; outlines mega-trends and how they may positively or negatively affect Vietnam's future jobs; and draws from global experiences to identify a narrowly-defined set of priority

policy directions that are relevant for Vietnam's challenges.⁹ The report is not intended to be prescriptive, but instead it frames the better jobs issue and narrows down the reform priorities to a core set of policy areas for deeper analysis, debate, and action by Vietnam's policymakers. While the policies may look familiar, they have been selected out of a long list of policies; these offer the best chance for better jobs.

This Overview report focuses on reform areas that emerged from the larger Vietnam's Future Jobs: Leveraging Megatrends for Greater Prosperity report. It starts with a brief review of the evolution of jobs in Vietnam since 1986, followed by a quick description of today's jobs in Vietnam. It then moves into a more detailed discussion about the emerging global mega-trends and how they might benefit – or threaten – future jobs. It lays out eight policy areas to create better and more inclusive jobs in the current economy (short run) as well as some actions that, if taken now, will prepare Vietnam to capitalize on the future evolution of job markets. It concludes with a summary of the main messages and of the policy directions.

A QUICK LOOK **BACKWARD**

Vietnam's economic miracle is well documented.

In 1986, Vietnam was in the bottom decile globally in terms of per capita GDP and had one of the highest shares of employment in agriculture in the world. Yet by 2016, just 30 years later, Vietnam had converted itself into a lower middle-income, modernizing, globally-integrated paradigm of economic development. This amazing transformation was the result of the radical reforms initiated in 1986 under the government's *Doi Moi* strategy¹⁰ of economic reforms aimed at creating a socialist market economy.

***Doi Moi* also radically shifted the structure of jobs in Vietnam.**

In 1986, Vietnamese jobs were characterized almost entirely by family farming, collectives, and state-owned enterprises (SOEs). After the introduction of *Doi Moi* and its associated reforms, employment in the agricultural sector declined from 75 percent in 1986 to 46 percent of jobs in 2016. This was accompanied by a rise in the share of jobs in manufacturing (from 15 to 21 percent) and in services (from 18 to 33 percent).¹¹ Employment in state-owned enterprises declined from 16 to 2.5 percent in the same period, although this was offset by growth in government jobs. Employment in private enterprises increased from zero to 13.7 percent of all jobs, while the share of jobs in household enterprises increased from 12 percent to 31 percent.¹² Labor productivity growth averaged 4.7 percent over the period, well above the global average (1.9 percent) and OECD average (1.3 percent).¹³ Before 2000, labor productivity growth was due to within-sector productivity enhancements, whereas between 2000 and 2013, workers moving between sectors were the key drivers.¹⁴

Reforms in the agricultural sector led to a productivity boom and released rural labor.

In 1987 and 1988, private economic activity was legalized, collectives were replaced with household

farms, and price controls were eliminated, exposing farms to markets and competition.¹⁵ A series of land reforms also allowed households to lease, exchange, and mortgage their land – increasing the length of tenure of plots over time. This increased farm revenues¹⁶ and created incentives for farmers to enhance productivity and invest in their land, while also creating potential new revenue streams in rural zones. In the 1990s the government introduced a series of trade liberalization measures, including in the agricultural sector, that generated new markets for Vietnam's primary products and stimulated domestic production, especially rice. This resulted in Vietnam changing from being a significant importer of rice to being the world's second largest exporter by 1997. Not only did the quality of agricultural jobs improve because of higher earnings but it also made workers available to work in other sectors.

Opening Vietnam's economy to foreign investors resulted in an inflow of FDI and a movement of jobs into manufacturing (and services).

In 1987, the government lifted restrictions on foreign ownership (except in areas of national defense) and allowed 100 percent foreign-owned firms to enter the market. Foreign multinationals were even offered generous tax breaks and incentives to locate their operations in Vietnam,¹⁷ and special economic zones were established across the country. This resulted in a boom in FDI and a spike in demand for workers in the private manufacturing sector.¹⁸

Enhanced competition and a reduction in government support for SOEs led to a consolidation of the SOE sector, opening market space for the private sector to fill. Under *Doi Moi*, SOEs faced competition from an emerging private sector and received fewer subsidies and support from the government. They were also

given more autonomy over their management and were allowed to pursue profits rather than output targets. The SOEs responded to these new conditions by consolidating their activities, with some closing but most merging with associated layoffs.¹⁹ In urban areas, these job losses were offset by the opportunities provided by the increase in foreign and private domestic firms, but in rural areas, this led to a net loss of manufacturing jobs.²⁰ Although the total share of jobs in public or privately owned enterprises remained about constant with the reallocation of workers, labor productivity grew rapidly in this initial phase of Vietnam's industrial transformation.

Reforms to the domestic sector prompted the growth of a more modern private domestic sector providing better quality jobs. In 1990, the government enacted the Law on Private Enterprises, which regulated the emergence of private firms, and the 1992 constitution officially recognized the private sector as an integral part of the Vietnamese economy. A series of subsequent reforms that allowed greater market-based price setting and opened up the domestic market to trade also encouraged the growth of the private domestic sector, particularly in manufacturing and the service industry. In 2000, the new Enterprise Law made it significantly easier for enterprises to register, which encouraged more businesses to move from being an informal household enterprise to entering the formal sector. This is

likely to have improved job quality since registered firms have much higher compliance rates with labor law than unregistered enterprises.²¹

Trade provided opportunities for both domestic and FDI firms. Vietnam moved from being a minor player in terms of trade in 1986 to being one of the most open countries to trade in the world by 2016. The US lifted its trade embargo on Vietnam in 1994. In 1995 Vietnam joined ASEAN and its free trade area and began applying to join the World Trade Organization (WTO). The US-Vietnam Bilateral Investment Treaty was signed in 2001, leading to a huge increase in exports, particularly in garments, textiles, and footwear. Vietnam's membership in the (WTO) was finalized in 2007. In 1989, the country's export sector was responsible for 4.5 million jobs, mostly in agriculture, forestry, and fisheries, but by 2012, this had more than doubled. Jobs in the export sector were created both by foreign-owned firms (FDI) and domestic firms. A significant share of exports and jobs created in the garment and textile sector, for example, are created by domestic firms – evidence that in Vietnam, the export sector does not necessarily equate with the FDI sector.

Though *Doi Moi* and related reforms caused a massive shift in Vietnam's jobs picture and provided income-earning opportunities never before seen in Vietnam, the country still needs to add even more good and inclusive jobs.

BRIEF SKETCH OF TODAY'S JOBS

Most Vietnamese people who wish to work do so. This can be seen in Vietnam's very low unemployment and high employment rates (defined as working at least one hour in the week before being surveyed). While 80 percent of Vietnamese people age 15 or older are working or looking for work, only 65 percent of this age group are in the labor market in comparable countries.²² Vietnam's high labor force participation rates are partly due to the high labor force participation of women. Approximately 76 percent of Vietnamese women age 15 or older are working or searching for work compared with a global average of 50 percent and a regional average of 61 percent.²³

However, Vietnam has a dearth of quality jobs. Most jobs are in low value-added production and services, with 76 percent of people working in family farming, household enterprises (Box 1), or in jobs with no labor contract. Limited assets, scale-limitations, and a host of other factors constrain the possibility of raising the value-added of these kinds of employment.²⁴ Nearly half of all agricultural workers (family farmers or contracted agricultural laborers) are clustered in low-productivity paddy²⁵ and household enterprises primarily produce and trade with

each other.²⁶ Also, most formal firms – which produce “good” jobs paying a wage, benefits, and better work conditions – produce low-value added goods and services. Approximately 75 percent of manufacturing jobs are in assembly, the lowest value-added activity in the value chain, and half of the jobs in services are in retail. In fact, only 10 percent of jobs in Vietnam are in professional or managerial occupations, and the top ten occupations – employing 2/3 of the labor force – are very low-skilled (Table 1).

TABLE 1: Top occupations in Vietnam, as a share of all occupations, 2014

Occupation (3-digit VNSCO)	%
Agricultural, forestry, fishery laborers	33.0
Street and market salespersons	7.9
Market gardeners and crop growers	6.7
Shop salespersons	4.3
Building frame and related trades workers	3.7
Textile, fur, leather machine operators	2.7
Garment and related trades workers	2.2
Mining and construction labourers	1.9
Taxi, van and motorcycle drivers	1.9
Subsistence crop farmers	1.8

Source: adapted from Demombynes and Testaverde (2017).
Note: the table includes the ten largest occupations as defined by the Vietnam Standard Classification of Occupations (VNSCO). Hundreds more occupations are not included in the table.

BOX 1: Who are non-farm household enterprises in Vietnam?

A new study gives detailed insight into Vietnam's 10 million household enterprises. Non-farm household enterprises are small, mostly informal, and low-profit. More than 20 percent of the labor force owns a household enterprise in Vietnam, providing the range of manufacturing and services that underpin the day-to-day activity in the economy. They are the small noodle shop owners, motorcycle mechanics, specialized craftsmen, corner store owners, taxi drivers, and the myriad of small businesses that rural and urban household engage in. Nearly 2/3 of these enterprises do not have a business certificate, most not even being aware that they legally need to register their businesses. Monthly earnings range from 4 million *dong* (self-employed) to 9 million *dong* (employers), though this is shared by the owner and working family members. The average firm size is 2.5 people, one of whom is the owner, and a good share (40 percent) are unpaid family members.

Non-pecuniary aspects of the job make it an attractive option for their owners. Nearly 80 percent of Vietnam's household enterprise owners cite positive reasons for owning an unincorporated business, including earn a better income (34 percent), independence (14.6 percent), family tradition (9.9 percent), or to balance personal and professional life (14.6 percent). In essence, these jobs pay better than agriculture, provide quality of life that is not feasible in formal wage jobs, and are far more accessible than more lucrative public sector jobs.

Source: Pasquier et al. 2017.

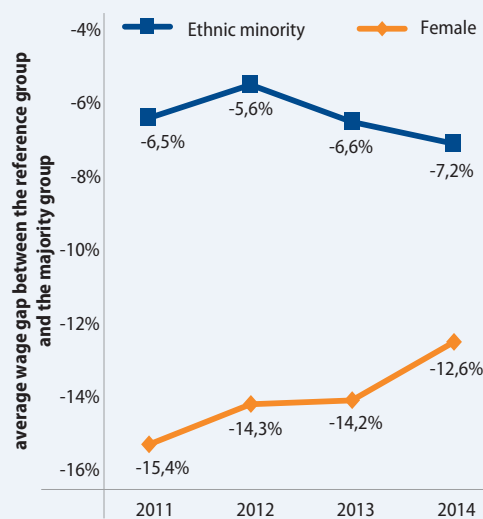
From the worker's perspective, job quality is also limited. The 12 million workers with labor contracts – both in the public and private sector – earn more than the minimum wage, more than 90 percent receive social insurance (but only 75 percent of those working in registered private domestic firms receive social insurance), and have some job stability in terms of work hours and employment.²⁷ In contrast, the 38 million jobs that do not have a labor contract are of particularly poor quality by various measures. Many of these workers earn below the minimum wage²⁸ and do not contribute to social insurance. Also, they often work in several part-time jobs²⁹ and face uncertainty in their earnings due to weather, health, or price shocks.³⁰ However, even in these informal jobs, there are some non-pecuniary job qualities that the workers value. Most household enterprise owners value the flexibility and control that owning one's own business offers,³¹ and informal wage workers report valuing the time flexibility over higher wages.³²

By some measures, Vietnam's dedication to equality for all its citizens is reflected in its jobs. Women and men participate in nearly equal shares in the labor force, an anomaly in comparison with most of the world. Both farm and non-farm household enterprises are owned almost equally by men and women. Land is fairly equitably distributed – though land use titles are still not issued in the name of both spouses. A similar percentage of women and men receive social benefits through their jobs though women are much more likely than men to hold wage contracts (71 percent of female wage or salary employees compared with 52 percent of males), largely due to the high female incidence of public sector employment³³ and female-biased labor-intensive manufacturing industries.

However, women are at a distinct disadvantage by other measures. Women balance their high employment with a 35-hour per week “second” job in household care, with these time demands being even greater for women who are ethnic minorities or who live in rural areas.³⁴ Women are over-represented among household enterprise

owners³⁵ and family farmers³⁶ and carry out two-thirds of unpaid labor in Vietnam. The gender wage gap is 10 percent, or 12.6 percent after controlling for men's and women's different education levels, though this gap declined between 2011 and 2014 (Figure 2). Gender discrimination by employers limits women's opportunities to move up the job ladder as can be seen by the fact that 65 percent of recent job advertisements for managers specified male candidates.³⁷ Women are crowded into lower paid jobs despite having higher professional aspirations than boys when in lower-secondary school. However, there is evidence that some women are trading off lower wages for jobs that provide more family friendly policies, namely family leave and social insurance.³⁸

FIGURE 2: Wage gap by gender and ethnicity



Source: Demombynes and Testaverde (2017)

Note: Ethnic minority is defined as not being of Kinh or Hoa ethnicity.

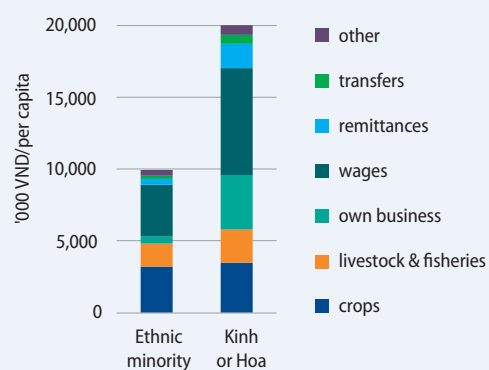
People from ethnic minorities face particular challenges in transitioning into modern, lucrative jobs with social protections. As of 2014, the primary job of more than 65 percent of workers from rural ethnic minorities was in agricultural activities, with much higher rates among particular ethnic groups.³⁹ They are slowly transitioning into

off-farm work but still have limited access to the market-based jobs that are available to Kinh and Hoa rural households. A combination of factors has limited the number of workers from ethnic minorities who have made the transition out of primary agriculture and into higher earning jobs, including their geographic isolation, low skill levels and language barriers,⁴⁰ and customs and practices as well as a lack of diversity in off-farm activities (Figure 3).⁴¹ An ethnic wage gap persists at around 6.5 percent (Figure 2), with women from ethnic minorities bearing the brunt of both gender and ethnic discrimination.

New trends may begin to open up opportunities for ethnic minority workers. The recent relaxation of the *ho khau* (restrictions on internal migration) may help rural ethnic minority workers to move to more economically dynamic areas to take up jobs⁴² as well as increasing the access of migrant children to education and health services. The enrollment rates of ethnic minority children in primary and lower secondary school are moving closer to those

of Hoa and Kinh children. Those ethnic minority children who learn to speak Vietnamese have math and reading/vocabulary test scores that are more similar to the scores of Hoa or Kinh children than to the scores of non-Vietnamese speaking ethnic minority children.⁴³

FIGURE 3: Primary source of per capita income, by ethnicity of household head



Source: Author's calculations based on VHLSS (2014).

MEGA-TRENDS AND THEIR EFFECTS ON VIETNAM'S JOBS

Five trends are particularly likely to affect the ability of the current economic model to create better and more inclusive jobs: the rise of an Asian consumer class, the shifting trade patterns, demographic shifts, the rise of knowledge economies, and automation (a sixth trend – climate change – is briefly discussed in Box 3). While many of these trends intersect with each other, all provide potential opportunities to improve Vietnam's jobs picture or impose potential threats to better future jobs. This section sketches out the nature of these jobs trends, how they are currently affecting Vietnam, and how they might affect future jobs.

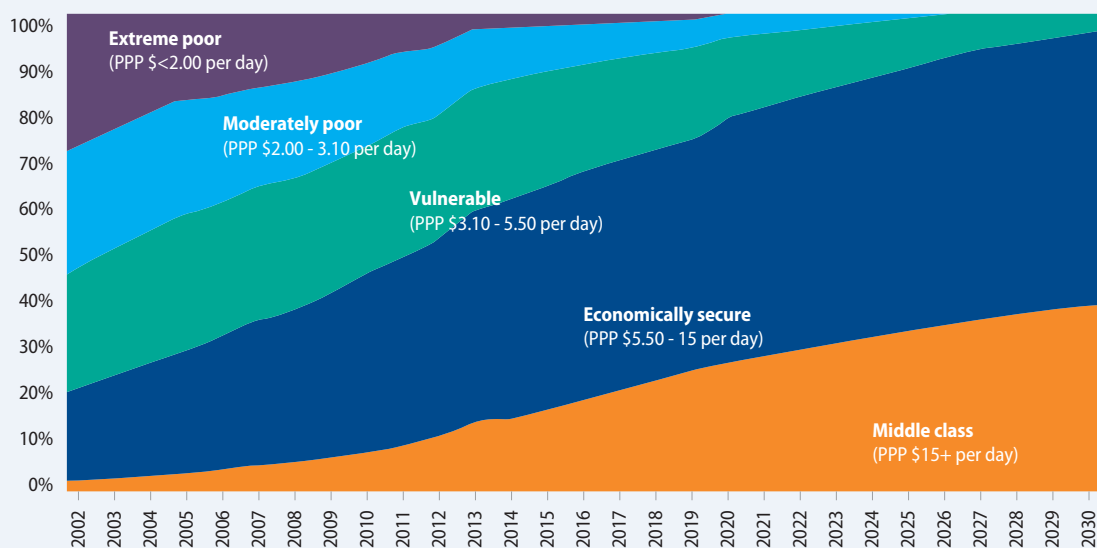
Rise of the Asian – and Vietnamese – Consumer Class

The Asian consumer class is rapidly expanding. While Asia is home to some of the richest countries

in the world, it is also home to a growing number of middle-income countries. In 2002, approximately 20 percent of households in developing Asia countries could be classified as being economically secure or middle class, i.e. having high enough incomes to cover the cost of day-to-day living, some savings to protect against income shocks, and some left over for additional consumption.⁴⁴ By 2015, this had risen to more than half of all households, equivalent to a consumer class of more than 1 billion households. It is estimated that more than 90 percent of developing Asia households will have incomes available for excess consumption by 2030, thus constituting a substantial consumer class. (Figure 4).

Within Vietnam, about 70 percent of the population has extra money to spend. While most of these households can be categorized as

FIGURE 4: Share of developing Asia households in each consumption category, 2002-2030



Source: World Bank (2017)

“economically secure,” namely that they spend US\$5.50 to US\$15.00 per capita daily, they are already a dominant potential source of consumers. The number of such households is rapidly expanding, already having grown by 20 percentage points since 2010. Between 2014 and 2016, three million Vietnamese attained middle class status, bringing the share of Vietnamese classified as middle class to 13 percent.

Non-poor households buy more, and different, goods and services than poor households. Non-poor households consume a larger share of total calories in non-rice products as compared to poor households.⁴⁵ They purchase more expensive food baskets, including in non-rice cereals, fruits, and meat, that are expected to meet solid standards of hygiene and food safety, and they buy more non-food products and services. Compared to the poor, the consumer class households in Vietnam spend twice as much per person on meat and fish, and on meals, beverages and alcohol in restaurants and hotels. They spend nearly three times as much on housing, appliances, health and education services.

Urbanization is also shifting consumption patterns. Urban household need to buy food that in the past they may have produced. They spend more of their income on services (rather than food or other basic necessities) than do non-urban consumers, such as communications, transport, restaurants, and banking. While urbanization may be re-shaping Vietnamese consumer preferences, perhaps the biggest opportunity for Vietnam is China’s rapid urbanization and consumer growth, particularly in services, aged care services, and education.⁴⁶

These shifts may have two implications for jobs in Vietnam. First, jobs will diversify within sectors. For example, as the demand for rice declines in favor of vegetables, jobs will shift out of lower-value rice and into higher value vegetable cultivation. Second, jobs will shift across sectors. Demand for manufactured goods will increase as Vietnamese consumers have the means to purchase more manufactured goods

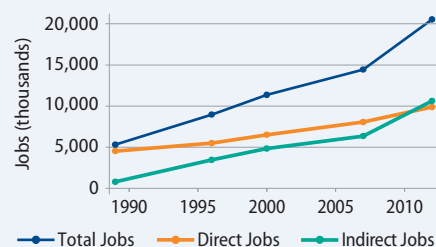
from processed food to clothing and consumer appliances. The service sector will expand more as transactions move from households to formal, sanitized market places and demand for high value personal services, leisure, and high-quality amenities increases. Firms and workers will move into these sectors, resulting in more production and service jobs in higher value-added activities. If Vietnam successfully markets its goods to neighboring countries, the demand from foreign consumers could lead to an even bigger boom in manufacturing and service export jobs.

Shifting Trade Patterns and New Trade Partnerships

Global trade flows have been increasing for decades, though there are signs that global trade is slowing down. Global trade has increased an average of 5 percent annually since 1990 while Vietnamese trade flows have increased an average of 14 percent annually. Both exports and imports have similar mean annual growth rates for Vietnam. More recent trends, since the early 2000s, show similar estimates, though global trade has been declining since 2014 while global FDI has leveled off.⁴⁷

Exports are a strong source of jobs and wages. In Vietnam, exports are directly responsible for 9.9 million jobs in 2010, primarily in the manufacturing sector, paying out 463 trillion dong in wages. Another 10 million jobs were created in sectors (mostly agriculture) that provide inputs to the export sector (Figure 5).

FIGURE 5: Direct, indirect and total jobs content of exports, 1989-2012



Source: Hollweg (2017a)

Foreign direct investment (FDI) has played a big role in trade expansion. More than US\$100 billion of FDI flowed into developing East Asia in 2015, transforming the economic landscape and creating millions of jobs. While domestic Vietnamese firms engage in direct exports, trade flows are strongly driven by FDI, in response to Vietnam's favorable trade terms and other incentives. The FDI sector is an important engine of economic growth, job creation, and poverty alleviation in the country; directly employing more than 2 million workers.⁴⁸ Globalization has brought with it – whether through FDI or industry standards – greater efficiency through better production management, access to more markets, and quality control standards.

A number of factors are beginning to change the patterns of globalization, with potential implications for the number of and nature of jobs in Vietnam. First, other countries are emerging as competitors for Vietnam for low-skilled production jobs, including Cambodia and Myanmar, while African countries are increasingly entering sectors where Vietnam enjoys significant FDI. Second, as China's labor costs rise, more labor-intensive and low value-added businesses are looking to move to lower-cost locations, while China is itself increasingly looking for new investment opportunities overseas. Third, goods exports are becoming more sophisticated and increasingly involve new technologies, requiring a more knowledge-based assembly process than in the past. Additionally, cost-competitive wages have driven growth in knowledge-based industries in developing countries, many of which have become major destinations for outsourced services and processes. Fourth, the accelerating pace of technological change is beginning to affect the production of manufactured goods and the location of manufacturing production.⁴⁹ Previously out-sourced low-skilled jobs are returning to the home countries of the lead firms where high-skilled automated processes are being used (re-shoring).

New trade agreements provide additional opportunities. The Comprehensive and

Progressive Agreement for Trans-Pacific Partnership (CPTPP), to which Vietnam is a signatory, is a trading block of countries with a combined total of 13.5 percent of global GDP. This will increase access to markets and spur FDI investments and is expected to expand the service sectors and boost productivity, while creating new opportunities for domestic firms to integrate into regional value chains. Vietnam's commitments under the CPTPP, could help accelerate reforms in many areas, promoting transparency and creation of modern institutions.

Vietnam has a lot to win or lose from these shifting patterns. Export-oriented jobs may be truncated if Vietnam loses its place in export markets or global value chains or if FDI relocates. Low-skilled assembly jobs will likely relocate, but there may be new opportunities, particularly in Asian trade corridors and among CPTPP countries, for Vietnam to move into higher value-added domestic and FDI-led exports, including an expansion of service exports. This would bring with it higher value-added jobs. The skill level of the labor force and weak linkages to domestic inputs markets may hinder Vietnam's ability to capitalize on this mega-trend.

Rise of the Knowledge Economy

Twenty-first century workers require a more complex set of skills than in the past. There has been a global shift away from manual, routine jobs and into non-routine, thinking jobs.⁵⁰ While basic cognitive skills (reading and writing) and technical knowledge in one's field was the recipe for a productive worker in the past, today's employers are looking for a range of skills and knowledge. This is being driven by automation, where machines are taking over non-thinking tasks or a part of the production process, as well as the increase in demand for high-value products and services driven by the expanding consumer class and global value chains.

While Vietnam has relied on low-knowledge assembly in the manufacturing sectors, it is the “knowledge jobs” in value chains - in design, R&D, marketing, after-sale services, logistics,

and vertical farming (Figure 6) – that represent a larger share of overall value-added than assembly jobs. Further, service exports in themselves can be a lucrative industry, especially as some developing East Asian countries are off-shoring some service industries and as Vietnam develops its own expertise in, for example, software development and other emerging service industries.

Knowledge jobs are emerging in Vietnam but the skill level of the workforce may limit their growth. Although the fastest growth is still in low-skilled manual jobs, semi-skilled jobs grew by 40 percent between 2011 and 2015, and professional careers – electro technology engineers; finance professionals; sales, marketing, public relations professionals; and engineering –increased by 17 to 25 percent.⁵¹ However, the education profile of Vietnam's population shows that it is not equipped for the knowledge economy. Only 8 percent of the labor force has a university education, while 85 percent have only a secondary education or less.⁵² Some groups are even more disadvantaged in terms of education and skills. Ethnic minorities have much lower education skill levels than Kinh or Hoa children and adults. Only 6 percent of adults who are ethnic minorities have a vocational or tertiary education compared to 20 percent of Kinh or Hoa adults. Similarly, few older workers in Vietnam have completed upper secondary

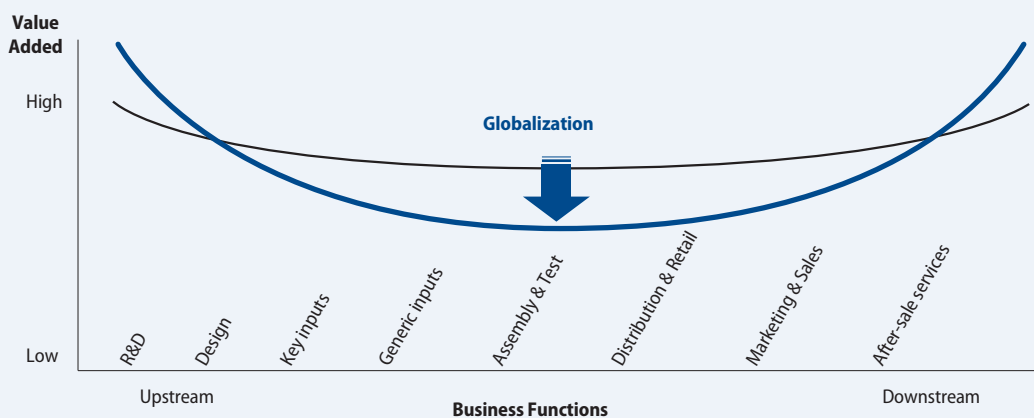
education, and given the scarcity of continuing education programs, they have few opportunities to acquire the skills needed for knowledge jobs.

Automation and Digitization in the Workplace

Machines, robots, artificial intelligence, and information technology are rapidly entering workplaces around the world and in Vietnam.

Cell phone apps monitor weather conditions for farmers in the Mekong Delta, sharing apps (most prominently ride sharing and accommodation) are upending traditional markets, electronic jobs boards are accessed by youth in Ho Chi Minh City, machines are alleviating manual work in farms and factories, and the electronics value-chains have become the second largest source of FDI in Vietnam (after garments). This technology has the potential to free up Vietnamese workers from lower value-added tasks, potentially enabling them to engage in less tedious, and higher value-added, jobs. These platforms may also be a catalyst to greater productivity and more inclusion (trade and financial) of small producers by providing access to markets at a low cost, as Alibaba does with SMEs in China. But they may also disrupt existing jobs, and change the notion of a job, ranging from people working at home instead of traditional workplaces, or people working as independent workers for short periods

FIGURE 6: Schematic value chain, by value added for each stage of the production process



Source: Fernandez-Stark et al (2011).

(the so-called gig economy) in what would have been contracted work in the past.

There is uncertainty in when and how automation will affect the nature and number of jobs in Vietnam, with estimates of technology-induced job losses in Vietnam ranging from 10 to 70 percent. While jobs will adapt or emerge in response to new technology, others may be lost. According to the Vietnam STEP survey, a specialized skills survey collected in 2012, the jobs with a low risk of being replaced by technology are those that require human skills (such as management), cognitively challenging skills, and higher-level reading comprehension and math. Those jobs that require basic math and reading are more susceptible to automation.⁵³ But what tasks and jobs will be automated, and over what time frame depends on several factors, many of which portend a long transition process for Vietnam (Box 2).

Mechanization in Vietnam's largest jobs sector - agricultural production - is having such a mixed effect: in some instances, it replaces hired labor, in others it creates more and better jobs. Mechanization of manual processes tends to increase returns to labor thereby improving the quality of jobs. For example, using mechanized pumps for irrigation often allows two or three

more crops to be grown on the same plot of land per year, which increases labor use. Further benefits include the growth of agriculture-related service industries. Agricultural machinery rental and repair services provided by cooperatives and private companies are already providing well-paid jobs in rural areas and attracting young people who otherwise migrate to urban areas. However, many farming jobs in Vietnam will still be difficult to mechanize in the near future, whether due to the cost of machinery, absence of machinery that is compatible with Vietnam's local farming conditions and topography, or an agricultural infrastructure that does not facilitate comprehensive electrification and mechanization.

Shifting Demographics and the Increasing Dependency Ratio

The simultaneous decline in fertility rates and increased longevity in Vietnam will soon decrease both the share of the working age population and the time that it has available for market work. The share of the population that is of working age has reached its peak and will begin to decline in 2018, just as the elderly share of the population takes off (Figure 7). While 6.7 percent of the population was aged 65 or over in 2017, this share is expected to reach 21 percent by 2050. This implies a sharp increase in the dependency ratio in Vietnam from 0.42 in 2015 to over 0.6

BOX 2: Rise of the sewbots? Maybe not for a while...

Recent publications have estimated that 86 percent of Vietnam's garment jobs will be replaced by machines in the next 15 years. This is certainly a frightening prospect, given that this \$29 billion (annual exports) industry is the source of 13 percent of Vietnam's exports (2015) and 1.3 million jobs. However, a closer look at the apparel industry suggests that these predicted job losses may be excessive, especially in the short run. The jobs that cannot be automated – specialized apparel, knowledge tasks that are higher up the value chain – will still exist. And a host of new jobs will arrive – running and repairing the machines, programming machines to accommodate new styles, and designing shop floors to be machine-friendly. Several factors need to come together for machines to begin replacing humans, none of which are the case in the apparel industry:

1. The existence of machines to replace labor. While technology is being employed in some parts of the apparel global value chain, there is still not a machine that can replace the cut-make-trim (sewing machine operators) that employ 70 percent of garment workers. While the first CMT machine is expected on the market in 2019, it can only produce the most basic garment – an 8 step tee-shirt – quite distant from the 78 step dress.
2. Repetitive tasks with few changes. Fashion changes quickly. While people can easily learn to stitch a new angle, stretch a new fabric, or add a new adornment, machines will not have the flexibility for many years.
3. High labor costs relative to the cost of machinery. Although labor costs are increasing in Vietnamese garment factories, they still pale relative to machines. While the CMT machine for tee-shirts is estimated to pay for itself within two years (of displaced worker wages), the machine itself will need to be replaced frequently as fashion changes.

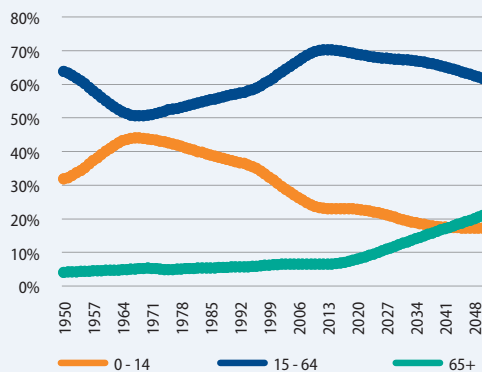
ILO (2016), Frederick (2017), <http://softwearautomation.com/>

by 2050, meaning that working-age adults will be caring for older adults and children, which will reduce the amount of time that they have available to work. While the child-dependency ratio will stay relatively constant around 0.3; the old-age

dependency ratio is expected to increase from 0.1 in 2015 to 0.34 by 2050.⁵⁴

These demographic trends have several implications for Vietnamese jobs. First, women, who already have high work rates and spend significant time on housework, will be pressured to provide unpaid eldercare services for family members, thus crowding out their market work time. This may be exacerbated by a fiscally unsustainable pension system that, if it collapses, could leave retired adults to depend on their working children.⁵⁵ Second, since there will be fewer people, it will be necessary for the existing workers to do more. Third, the falling size of the workforce may encourage the adoption of labor saving technology by Vietnam-based firms, thus changing the skills needed in Vietnam's future jobs. Fourth, the care industry will likely expand to cater for the elderly population, as is currently occurring in China, developed Asia, Europe, and the United States, and may open up new job opportunities.⁵⁶

FIGURE 7: Annual share of the population by age, 1950-2050



Source: UN Population Prospects, the 2015 Revision.

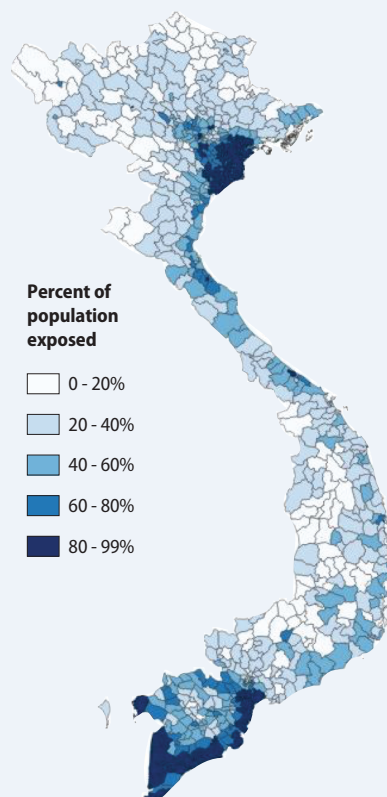
BOX 3: Climate change and jobs

Climate change is expected to have a significant impact on jobs globally. There is little evidence about its exact impacts, but there are some scenarios that merit consideration.

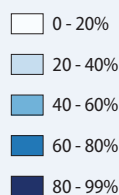
Climate change is a significant risk to Vietnam. Temperature increases per decade in Vietnam since the 1960s is double that of the global average. Rising sea-levels expose a third of Vietnam's population to the risk of flooding, rising to more than 80 percent in the Mekong and Red River Deltas (see map). These shifts are accompanied by greater rainfall variability, more extreme weather, increasing water salinity, droughts, and the nature and frequency of crop and livestock (and human) disease.

These changes may lead to jobs loss, particularly in industries that rely on the environment. Changing salinity threatens 2/3 of Vietnam's fish from aquaculture. Agricultural land in the Mekong Delta is slowly eroding and, when coupled with increasing salinity, puts at risk the livelihood of 13.6 million rice farmers. The services and manufacturing jobs that form the up-stream jobs in agro-food value chains may be affected. The tourism industry may suffer as temperatures rise, coasts erode, and weather becomes more unpredictable and severe. And productive assets may be lost to floods or sold-off to manage the income losses induced by weather shocks.

Jobs will be created, destroyed, or transformed. They may respond to the new conditions created through climate change, such as more air conditioner installers, deep water irrigation engineers, or infrastructure repair or they may



Percent of population exposed



Disclaimer:
The map shown is for illustration purpose. The boundaries, color, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries

slow down climate change, as in renewable energy. But international experts predict that the primary implications of climate change are the transformation of jobs. Primary producers may need to shift to drought (or flood) resistant crops or livestock. Tourism operators may need to diversify into regions that are less threatened by rising sea levels or high temperatures.

Climate change-induced migration is also expected to change the jobs picture. Massive out-migration from the Mekong Delta is partly attributed to impact of climate change; a similar picture is emerging in the north. The movement of low-skilled people to cities will expand the size of the household enterprise sector as well as provide new workers in low-skilled manufacturing. More workers will be looking for jobs and income insecurity will increase.

The policy challenge is to facilitate the transitions now to limit the negative jobs impacts and prepare for a changed future jobs market.

Scott (2014); Bangalore et al (2016; <http://www.independent.co.uk/environment/climate-change-vietnam-migration-crisis-poverty-global-warming-mekong-delta-a8153626.html>); http://www.ilo.org/global/topics/green-jobs/WCMS_371589/lang-en/index.htm

A ROADMAP FOR FUTURE JOBS: MOVING BEYOND THE STATUS QUO

What will future jobs look like? One scenario is that they will look a lot like today's jobs if Vietnam maintains the status quo. Vietnam's high GDP growth rates, high levels of labor productivity, and fully employed labor force suggests that the Doi Moi strategy still has much to offer Vietnam and its people. The current economic activity characterized by rapid exports and low value-added assembly jobs in enclaves with little connection to the broader economy is likely to continue to grow. If we assume that the transition from family farms and enterprises to jobs that are covered by labor contracts continues at the same rate as in 2008 to 2015, then about two out of every five jobs (43 percent) will be contracted wage jobs by 2040.

A second scenario is that Vietnam will leap-frog to more better and inclusive jobs by investing now to ensure that its economy and workforce are prepared for the emerging mega-trends. While there are still gains to be made under the current model, the government might consider adopting an economic strategy that capitalizes on emerging global trends, by moving up existing global value chains, embracing technology, serving a diverse emerging consumer class domestically and across Asia, and morphing into a knowledge economy. The aim of these policies would be to foster an innovative, dynamic domestic firm sector, generate a lean and smart labor force to create and work in higher value-added functions, and incorporate largely excluded economic sectors and people into the economy.

This report recommends eight policy areas for generating more good and more inclusive jobs in Vietnam in the context of emerging mega-trends:

1. Lowering the barriers to growth of domestic small and medium enterprises.
2. Encouraging enterprises to move into knowledge-intensive segments of regional and global value chains.
3. Facilitating the development of Vietnam's agro-food system.
4. Encouraging the agricultural sector to diversify into high value-added crops.
5. Facilitating business links between household enterprises and SMEs.
6. Building worker skills for today's and tomorrow's jobs.
7. Providing the information needed to place the right workers into the right jobs.
8. Providing auxiliary services to facilitate labor force participation and labor mobility.

The first five focus on the firm and markets (labor demand) (Figure 8), by creating new good jobs in the modern sector (strategies 1-3) and improving the quality of existing jobs in traditional sectors (strategies 4 and 5). The last three focus on workers, in terms of having the right skills (strategy 6) and clearing out other obstacles so that they can find and thrive in the right jobs (strategies 7 and 8).

FIGURE 8: Policy for better and more inclusive jobs

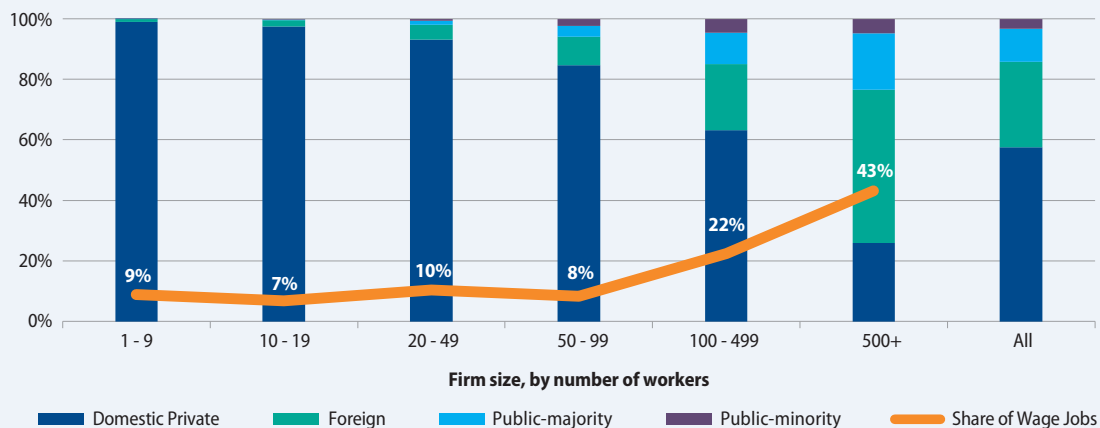
Reform Area I: Creating More Job Openings in “Good Jobs” in the Modern Sector

The best jobs, defined by higher labor productivity and wages and social benefits, are through contract wage employment. They are inclusive of women and youth. These are also the fastest growing types of jobs in Vietnam today and, if Vietnam prepares for the opportunities brought through the mega-trends, they have potential to grow even more. Thus, the policy challenge is to foster the creation and growth of enterprises that are conducive to job creation, create high value jobs, and position Vietnam for even more as the mega-trends are realized. Three policies areas are proposed.

1. Lowering the Barriers to Growth of Domestic Small and Medium Enterprises

Domestic enterprises can be an engine for creating better jobs, both today and as the mega-trends take off. The entry of FDI into the economy under *Doi Moi* has been a boon in terms of creating employment. Although foreign firms comprise less than 1 percent of all firms, they employ 30 percent of non-government contracted wage workers and are mostly very large firms. However, the majority of jobs have been created by domestically owned firms (Figure 9). Some are quite large, but the majority are in small and medium firms, which collectively employ 35 percent of all workers with non-government contracts.

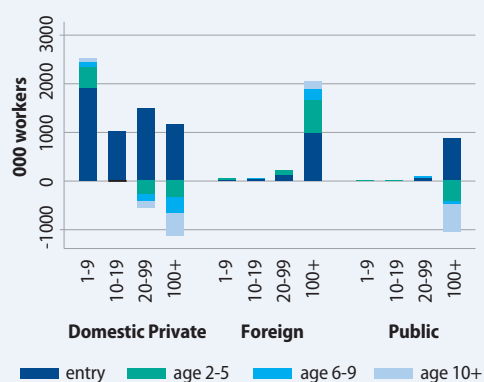
FIGURE 9: Distribution of jobs across firm size and ownership type, %



Source: Adapted from Aterido and Hallward-Dreimeier (2017)

Perhaps more importantly, the private domestic sector is contributing more to net job creation than any other firm ownership type, particularly very small firms (Figure 10). Most of this is due to the entry of new firms since few private domestic firms expand. However, among the firms that have added more jobs than they have shed, most are small and medium-sized firms employing 10 to 100 employees. These firms have a high rate of job creation for the first six years of life and then they stabilize, and most of them are domestic, non-public firms.

FIGURE 10: Job creation and destruction, by firm ownership, size and age



Source: Aterido and Hallward-Dreimeier (2017).

Job destruction through firm death is concentrated in larger firms. Large domestic firms of all ages – both private and SOEs – employ a lot of workers and destroy a lot of jobs (Figure 10). This is in contrast with large foreign firms, who continue to add jobs with age. What is not captured by these data is the fact that one-third of micro-firms exit the market within three years so, although they create many jobs initially, these jobs are short-lived.

These trends point to four conclusions about the types of firms that will be the source of contracted wage labor in the future. First, small and medium-sized domestic firm are the source of most job growth despite the constraints that they face in starting up. Second, very small firms have high failure rates. Third, a small number of large foreign firms play a large role in job creation. Fourth, SOEs create and destroy jobs at similar rates (with no net job creation).

Encouraging firm entry, firm growth, and continued inflows of FDI will also lead to continued productivity and job growth. Firms that are young, foreign, and large drive productivity increases. Overall productivity in registered firms has been increasing on average over time (solid line in Figure 11). Also, contrary to popular belief, more productive firms have larger labor forces in

Vietnam. In fact, the larger size of foreign firms is due to higher firm productivity rather than ownership; domestic and foreign firms with the same productivity have the same rates of job creation. The positive relationship between firm size and productivity has gotten stronger over time (covariance term in Figure 11). More productive firms are less likely to exit the market, which means that the jobs that they create continue to exist. The positive relationship is strongest for domestic private firms, half as strong for foreign firms, and weak for SOEs. Worryingly, the *most* productive firms are downsizing their workforce⁵⁷ by making labor-saving technological changes or by shifting production to be more capital-intensive. These job losses are particularly high among highly productive foreign and state-owned enterprises.

FIGURE 11: Productivity and the trade-off (covariance) between productivity and jobs



Note: Covariance is defined as the correlation between productivity of the firm and number of workers.

These trends point to four conclusions about the types of firms that will be the source of contracted wage labor in the future. First, small and medium-sized domestic firm are the source of most job growth despite the constraints that they face in starting up. Second, very small firms have high failure rates. Third, a small number of large foreign firms play a large role in job creation. Fourth, SOEs create and destroy jobs at similar rates (with no net job creation).

Productivity gains translate into higher wages, especially in private firms. In terms of job quality from the workers' perspective, foreign and older firms pay higher wages than domestic or SOEs. Exporters, firms with a high share of female workers, and capital-intensive firms tend to increase wages, while SOEs provide the lowest wage increases across time. As firms increase their productivity, their wages tend to rise but only minimally. This effect is greater in foreign firms than in domestic firms and is lowest in SOEs.

The emerging mega-trends will open new markets to domestic firms, but these must be actively sought. Emerging consumer markets within Vietnam, growing regional value chains, and efficiency-enhancing technology can offer domestic firms new areas of business. Also, the increased demand for services from the growing Vietnamese and Asian middle class and the growing services export market both offer opportunities for domestic small and medium firms.

This points to the need for both short-run policies to extract more jobs from the current economic model and medium-term strategies to ensure that the workforce and the domestic sector are ready for the emerging mega-trends. In the short run, the report proposes the following policy directions:

- *Level the playing field for the private sector.* The government could do more to encourage the entry and growth of domestic firms and to continue attracting new, large foreign firms. It could do so first by further loosening government controls over factors of production: land usage can be further relaxed, tax rates could be adjusted to reduce the gap between tax responsibilities faced by foreign and domestic producers,⁵⁸ and the state needs to be more cognizant of how it distorts input markets – through considerable purchase of production inputs – and capital markets that give preferential access to SOEs. Second, the government could reconsider the virtual monopoly held by SOEs in sectors such as fertilizer, coal, electricity and gas,

telecommunications, water supply, and insurance.⁵⁹ While some of these may be necessary for the purposes of national security or equity, removing protections from SOEs might open them to some productivity-enhancing competition and result in greater job creation and higher wages in the private sector, where firms tend to share productivity gains with workers.

- *Further facilitate firms' market entry and exit.* Vietnam requires more steps to register a business than the regional average and more than most other lower-middle income countries. Simplifying this procedure would help firms to enter the market and thus create jobs.⁶⁰ It would also help to make bankruptcy proceedings faster and less complex in order to enable firms to make an orderly, transparent, and efficient exit from the market, leaving the most productive firms to continue, thrive, and potentially grow.
- *Expand links between local SMEs and MNCs.* SMEs are job creators, but they are growth constrained so building business links between them and multi-national corporations (MNCs) may enhance their growth capacity. First, SMEs need to be provided with information on: (i) industry standards and how to meet them; (ii) the quality of goods and timeliness of delivery from prospective suppliers; (iii) credit options; and (iv) a supplier's database with information about secondary markets for the specialized goods that the MNC is seeking to purchase. Second, the government could help by eliciting feedback from MNCs or lead firms about what they need, by providing systematic matchmaking services between buyers and sellers, and developing mechanisms to provide follow-up support.

In order to ensure that the workforce and the domestic sector are ready for the emerging mega-trends, the report also makes the following medium-term proposals:

- *Establish structures to enable dialogue between public sector firms, large firms, and SMEs within the same sectors to help SMEs to become suppliers for larger firms, especially MNCs or*

exporters. There is great scope for SMEs to provide inputs to MNCs and exporters, but most are not producing at a quality or quantity level that is compatible with production processes in the larger firms. As a result, SME linkages to MNCs are quite weak. As SMEs have difficulty filling the information gap (they do not know what they do not know), the government can support such information collection and dissemination to guide SMEs to up their standards.

- *Support investments in logistics, finance, marketing, and other professional services to support manufacturing expansion.* This recommendation is the topic of the next section.

2. Encouraging Enterprises to Move into Knowledge-Intensive Segments of Regional and Global Value Chains

Services have the potential to account for a larger share of export earnings, both directly and also indirectly as inputs into manufacturing and agricultural products, and thus to create more high-quality jobs. The emerging knowledge economy and the rise of a middle class that will demand more services present Vietnamese firms with the opportunity to move into higher value industries – and thus better jobs – than low-skilled assembly for export. Design and R&D as well as marketing and after-sale services represent a larger share of overall value added than production. In fact, service exports generate higher wages per unit of output than manufacturing, 55 dong for every 100 dong exported compared with 29 dong per 100 dong of exports in manufacturing.⁶¹ However, services employ fewer workers per unit of output.

Vietnam's engagement in export-related services is quite limited compared with its involvement in the production stage of value chains. In 2015, Vietnam's exports of services represented less than 7 percent of Vietnam's export basket (compared to 15 percent in Korea, 16 percent in Malaysia, and 22 percent in Thailand) and were dominated by travel and transport services (95 percent) rather than other commercial services.

The Vietnamese economy will need to move into services for exports if it is to continue leveraging FDI to produce better quality jobs.

The services might be inputs to value chains in which Vietnamese firms are currently engaged, allowing them to upgrade to providing more sophisticated products and tasks and capturing more value-added domestically. However, the most prevalent "backbone" services that are being provided in other developing countries are not yet common in Vietnam, such as transport, telecommunications, finance, and other professional and business services.

Backbone services have the potential to play a bigger role in Vietnam's export sector and to be a source of higher-quality jobs. Vietnam should try to ride the "third wave" of offshoring in business process outsourcing (BPO) services as jobs have already started moving out of more expensive places like India and China and into other East Asian countries. Although Vietnam is not one of the top 10 countries for outsourcing today, it has a growing BPO sector and increasing capability in outsourced IT services such as software development.⁶² It has made huge strides in developing its domestic services sector by reducing barriers to trade and investment, expanding telecom coverage, and reducing access costs, and has promoted programs for developing technical skills. Yet these initiatives are still hindered by the restrictive regulatory and institutional framework for domestic and foreign firms, by weak telecommunications infrastructure, and the lack of skills and supporting professions such as accounting and legal services.⁶³

Vietnam is uniquely positioned to strengthen its logistics industry. It performs well on the logistics performance index, higher than many other lower middle-income countries, but it is far behind China and not that far ahead of the Philippines. Its international shipping scores favorably, but its micro-management systems are lagging and these are likely to become more important with more advanced goods and processes and as customers want greater speed in getting customized goods to market.

This is primarily a medium-term policy agenda, but there are some short-term actions that can be taken now:

- *Streamlining the logistics regulatory environment and upgrade domestic infrastructure to improve connectivity.*
- *Support links between exporting firms and domestic input-supplying firms.*

The medium-term objective is to build new products and skilled workers to drive a knowledge-based service economy. Three specific areas for action are:

- *Foster R&D and innovation.* This will require legislation or incentives to attract private investment or public subsidies to bolster Vietnam's meager R&D infrastructure and connect local facilities with national or international partners who have knowledge of local and global markets. The Law on High Technologies also needs to be revised to encourage R&D in a much broader range of sectors.
- *Lift formal restrictions on service trade.* The current regulatory framework disadvantages service exports. For example, lifting foreign equity limitations and caps would facilitate greater regional integration for Vietnam within ASEAN.
- *Build the human capital needed for knowledge-intensive service exports.* A short-term solution would be to relax emigration regulations and allow foreign professionals in the export-related industries to move to Vietnam. Also, participating in regional markets might offer Vietnamese firms a chance to learn from leading companies in the region and to play a bigger role than if they were competing in international markets. This would require Vietnamese companies to explicitly align their products and services with regional value chains and to build into their own trade agreements opportunities for Vietnamese professionals to receive on-the-job training. In the longer term, Vietnam will need to develop its own service professionals who can compete to the highest international standards.

3. Facilitating the Development of the Agro-food System

Vietnam's agro-food system is already a source of off-farm rural jobs and has the potential to yield even more if it can capitalize on several mega-trends. The agro-food system comprises not only primary agriculture but also a range of manufacturing and service jobs in, for example, farm inputs and services, food storage, food and agro-industrial processing, distribution and logistical services retailing, and food service provision. In fact, Vietnam's agro-food system is comprised of multiple "complete" value chains that can locally produce raw materials, intermediate products, and end products, either for domestic consumption or export.⁶⁴ With urbanization and a rise in the consumer class in Vietnam and in the region, mechanization, and the development of regional value chains, manufacturing and service jobs in the agro-food system have the potential to grow significantly.

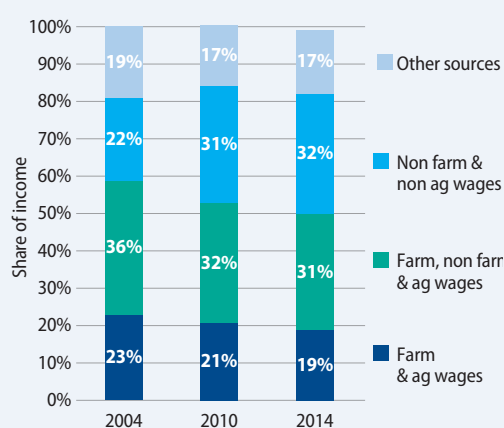
Already households are beginning to diversify into other parts of the agro-food chain. Although nearly 40 percent of workers identify family farming as their primary work activity, only one

in five rural households relies exclusively on agricultural incomes (Figure 12). One-third of rural households derive their income from non-farm jobs, an increase of 10 percentage points between 2004 and 2014. These jobs are often affiliated with the broader agro-food system. Another 31 percent of households mix farm and non-farm work, although this is shrinking over time in favor of non-farm wage jobs.⁶⁵ Male-headed households are more likely to engage in wage work while female-headed households are more engaged in self-employment activities.⁶⁶ The share of households that rely solely on agricultural income differs by region, and, notably, ethnic minorities derive a large share of their income from agricultural activities.

National agro-food chains are linking rural farmers with small-scale urban markets and household enterprise jobs. Urbanization and consumerism is encouraging the expansion of low-skilled, small-scale services in agro-food products in urban areas. The new activities include safer informal food distribution systems (such as hygienic wholesale and wet markets), a vibrant street food culture, large and small modern retail distributors, and firms specializing in efficient urban food logistics and the reduction of food waste. These small-scale activities are creating many jobs, particularly in the household enterprise sector.

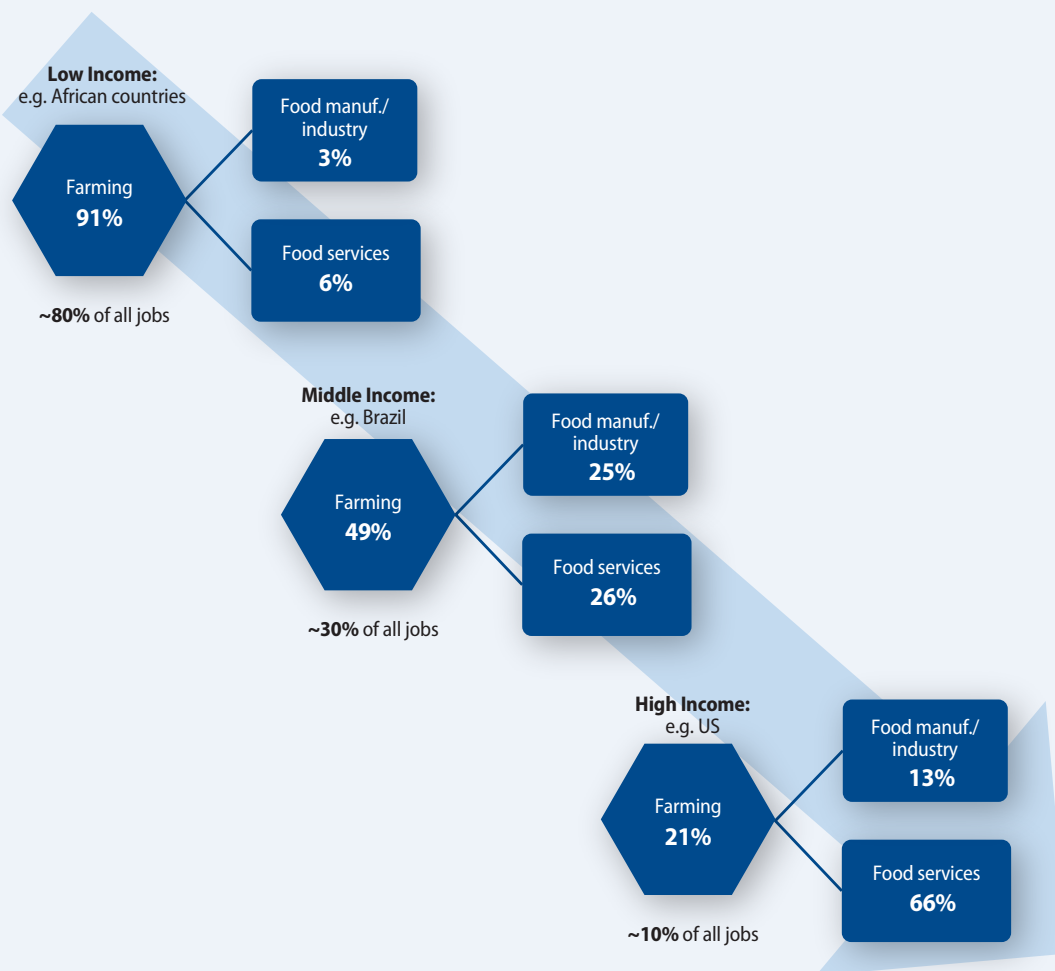
Vietnam also has a significant opportunity to create jobs in large-scale agro-food chains. These industries are responsible for 11 percent of GDP, but they currently account for only an estimated 4.5 percent of all jobs in the Vietnamese economy (equivalent to about 31 percent of industrial jobs) compared to 15 percent and 46 percent respectively for primary production. Past global trends suggest that off-farm jobs in agro-food chains are due to expand in Vietnam (Figure 13) though the automation of processes to prepare primary goods for market and the strict hygiene and processing standards demanded in global value chains may limit job growth in agro-food manufacturing to less than past trends might indicate.

FIGURE 12: Income sources of rural households, 2004, 2010, 2014



Source: World Bank staff based on the 2004, 2010, 2014 VHLSS.

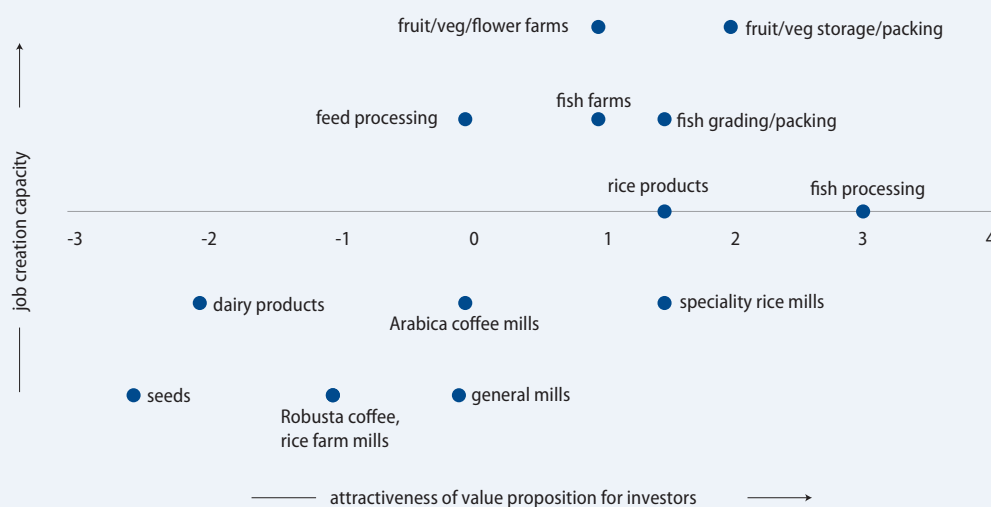
Note: "Farm and ag wages" is only farm income, while "farm, non-farm, and ag wage" is a mix of farm and non-farm wage and non-wage income. "Non-farm and non-ag wage" is only non-farm income. "Other" may include remittances, transfers, pensions, or other such sources of income.

FIGURE 13: Progression and distribution of jobs in a food system as countries develop

Source: WB staff estimates.

Some segments of the food processing industry are more jobs-friendly than others.⁶⁷ A recent analysis by the International Finance Corporation mapped 22 agro-industry subsectors in terms of their attractiveness to investors and their value to the Vietnamese economy as well as their potential to generate jobs. This revealed that the sectors that are both good for investors and good for workers (upper right quadrant, Figure 14) are horticulture and aquatic products, both of which have the potential to deliver many jobs with high returns in both the primary and tertiary segments of the value chain.

Agro-food processing also has the potential to create more inclusive jobs if the facilities are located near where the primary inputs are produced. Food processing factories remain rare in the 304 industrial zones established in more than 60 cities and provinces across the country. While most current fish processing and rice milling operations are in close vicinity to primary production, the remainder of the food and beverage processing industry appears to be concentrated in and around Hanoi or Ho Chi Minh City.

FIGURE 14: Investment attractiveness and job creation capacity of different segments of the food system

Source: Adapted from IFC (2014).

To foster the ability of the agro-food system to create better paid and safer jobs, a range of job-friendly policy interventions are needed:

- *Encourage investment in agro-food processing, food logistics, and modern retail.* To do this, it will be necessary to reduce the cost of domestic enterprises in the agro-food system, to level the playing field between SOEs and private agro-food processors, to enter further trade agreements to increase the access of Vietnamese products to international markets, to implement agro-food incubation programs for emerging and start-up SMEs, and to upgrade skills for the service jobs that are particular to the agro-food system.
- *Encourage financing to upgrade food market infrastructure at the local level.* Wholesale and urban wet markets are still largely informal. Upgrading their sanitation, logistics, hygiene standards, and facilities will not only improve the reputation of street food culture but also provide higher value-added job opportunities for family enterprises. Credit agencies should be encouraged to provide preferential lending rates and repayment schemes to attract public-private investments.
- *Strengthen public and private sector capacity to ensure safe food for both domestic and international markets.* Vietnam has already taken important steps in this regard, but it will also need to: (i) consider models such as co-regulation, which relies on greater private sector involvement; (ii) strengthen public control measures for food safety; (iii) require private companies to adopt HACCP (Hazard Analysis and Critical Control Points), traceability, and other food system management systems; and (iv) implement regulations and provide technical support to ensure safe food practices across the spectrum of small to large food processing, handling, and distribution enterprises. These upgrades would need to be accompanied by brand development and trade promotion to increase the visibility and perceived value of Vietnamese products overseas.
- *Provide incentives to encourage food industries to invest in cities close to the agricultural production base and areas with underemployment to foster the creation of inclusive jobs.* The agro-food industry would have a comparative advantage in locating in secondary cities where it would

be near its primary inputs. Such investments are particularly needed in the upland provinces of north Vietnam and the Central Highlands where there are very few economic opportunities and would create employment opportunities for Vietnam's ethnic minorities.

Reform Area II: Enhancing the Quality of Existing Jobs in Traditional Sectors

Although Vietnam continues its structural transformation process, it has a large stock of low-value added jobs, namely family farming (and related primary production) and household enterprises. Today they comprise 60 percent of all jobs and, if they continue to contract at the rates observed in the past 8 years, they will still comprise more than half of all jobs by 2040. They are overwhelmingly the source of employment for ethnic minorities, older workers, and the less educated, thereby being intricately linked to poverty reduction. Thus, these job sectors cannot be ignored. Two policy areas are proposed to better

integrate family farms and household enterprises into the modern enterprise sector.

4. Encouraging the Agricultural Sector to Diversify into High-Value Crops

While creating more and better jobs will take time, agriculture, as a part of the broader food system, can be leveraged to deliver more and higher quality jobs. On average, agricultural productivity is low, but there are some key differences between commodities, (Box 4), some of which are more labor-intensive and higher-value than others. Fruit, pepper, and coffee cultivators earn double the amount that paddy producers earn,⁶⁸ but due to various government policies, agricultural land use remains heavily skewed toward paddy production, as well as production of maize and cassava, accounting for 70 percent of agricultural land in 2014.⁶⁹

Significant economic and better job gains can still be achieved by facilitating the shift of labor from less to more productive activities. This

BOX 4: Properly measuring agricultural productivity

At first glance, agricultural productivity is low in Vietnam. Vietnam's average agricultural labor productivity in 2014 was VND 28.6 million per worker annually, 60 percent smaller than the average labor productivity in Vietnam's industry and construction.

Correctly measuring agricultural labor productivity leads to more nuanced conclusions. Actual hours worked is lower in most agricultural production than in manufacturing or services. When adjusted for actual work hours, agricultural productivity is estimated to be twice as large, equal to VND 53.7 million per worker per annum. The average productivity gap between agriculture and manufacturing or construction narrows to only 15 percent for construction and 30 percent for manufacturing and transport and warehousing. Within the agricultural subsectors, labor productivity in fisheries, coffee, pepper, and fruits was higher than that in construction and even food processing industry, the largest off-farm jobs alternative to farmers.

TABLE 2: Comparison of annual and per-hour-work adjusted labor productivity, 2014

	Annual labor productivity (GDP/worker) (VND)	Per-hour-work adjusted annual productivity (VND)
Agriculture	28,600,000	53,710,000
<i>Crops</i>		51,000,000
<i>Livestock</i>		57,000,000
<i>Agricultural services</i>		76,000,000
<i>Fisheries</i>		68,750,000
<i>Forestry</i>		39,250,000
Manufacturing and processing industry	70,000,000	
Construction	60,700,000	
Transport and warehousing	73,200,000	

Source: IPSARD's estimate based on VHLSS 2014 and GOS 2016.

Note: The share of crops in total agricultural output was 56 percent, livestock accounted for 16 percent, fisheries for 16 percent, forestry for 3 percent, and agric. services for 1 percent.

would particularly affect women, who are more likely than men to cultivate rice and less likely to cultivate high-value crops such as coffee, cashews, or pepper.⁷⁰ Since farmers keep the income that they produce, switching to such crops may translate into more employment (in terms of work days) and better job quality (in terms of higher agricultural income to rural households).⁷¹

Diversifying farmland use away from rice and maize is also consistent with dietary shifts occurring both domestically and globally. There has already been a decline in national consumption of rice and rapid rates of growth in the consumption of fruits and vegetables, processed foods and, especially, animal products,⁷² and this growth is expected to accelerate.

Given the importance of family farms for jobs today and well into the future, a range of priority policy reforms merit consideration by policymakers:

- *Adopt policies and programs to accelerate shifts in agricultural land use, especially from monocrop rice to mixed farming or high value crop production.* A high priority should be to convert significant proportions of lowland irrigated rice land into alternative use, as Vietnam did successfully with aquaculture in the 1990s and 2000s. Farmers could be given more land-use choices by further loosening restrictions on the use of rice-land, improving irrigation services, developing more flexible irrigation infrastructure suited to growing various crops, and supporting farmers in acquiring the new skills needed to cultivate high-value crops.
- *Enable (small) farms to achieve economies of scale and, thus, greater productivity and higher earnings.* First, encourage the growth of Vietnam's nascent land rental market and consolidate titling to reduce land fragmentation, thus allowing for more efficient use of inputs, including mechanization. Second, the government should facilitate joint production by small and medium-sized producers and strengthen cooperatives. Third, it will be important to use regulatory and market-based measures to increase the

adoption of sustainable agricultural practices to reduce the sector's vulnerability to weather, price fluctuations, and natural disasters.

- *Provide family farmers with professional development services.* In order to move into producing new crops and feeding into growing domestic and international value chains, primary producers will require a deeper knowledge base and continuous learning. Therefore, there is a need to develop a broad range of private technical, advisory, and financial services for Vietnamese agriculture and to develop dedicated programs to support agro-entrepreneurship (such as farmland transfer services and farm business education), particularly for women who currently benefit from fewer extension services than men.
- *Foster stronger and more consistent links between primary producers and the agro-food system.* Primary agricultural producers will gain most if they have access to regular and professional markets. This will require: strengthening farmer cooperatives and expanding their provision of a broader range of commercial and marketing services; providing public financing and technical assistance to encourage the formation of agricultural clusters for such select contexts as aquaculture, specialty rice, and horticulture and floriculture; strengthening animal health and pest surveillance services and enforcing regulations governing the use of agro-chemicals and antibiotics; and integrating primary producers into the food safety program discussed in policy area #3.

5. Facilitating Business Links Between Household Enterprises and SMEs

The household enterprise sector accounts for at least 10 million jobs and is likely to grow as a result of urbanization and diversifying rural economies. A new study proposes that this sector can produce more and better jobs if their business practices can be improved and if they can establish links to the SME sector.

Household enterprise owners want to stay small and informal while enhancing their

earnings, but their circumstances make this difficult. These firms operate in an economic bubble - purchasing inputs from other household enterprises and selling directly to individuals (Figure 15). They have few links to the formal private sector and almost none to the FDI sector. The top concern of household enterprise owners is a lack of access to markets followed by limited financial cash flow that constrains their inability to invest in their businesses. The third most common obstacle mentioned was illness. Forty percent of household enterprise owners reported that their business was negatively affected due to a period of illness and that they spent 41 percent of their profits on health expenditures, thus cutting into business investment.⁷³

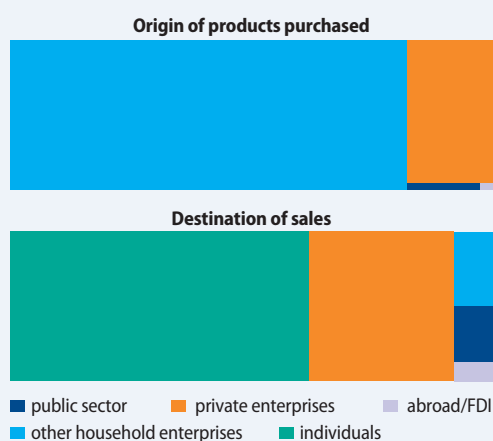
The most effective way to enhance the earnings of household enterprises is to foster their links to the SME sector. Just as SMEs need to be linked to MNCs, household enterprises can provide inputs to SMEs.

- *Facilitate information flows to household enterprises.* Policymakers need to provide household enterprises with information on: industry standards and how to meet them in key sectors that serve local markets; the quality and timeliness of delivery required by SMEs;

and credit options to enable them to make the necessary investments or upgrading to do business with SMEs.

- *Further ease the process involved in registering a business and communicate more clearly the benefits of registering.* Registering is desirable because “formal” household enterprises are more likely to have a business relationship with the SME sector.⁷⁴ Because small firm owners may not know the benefits of registration and the process involved in doing so, the government should consider launching market- and community-based information campaigns and registration platforms.
- *Provide extension services to promising household enterprises.* As with all business in Vietnam, increasing managerial competence raises productivity, but it can be difficult for household enterprise owners to take time away from their businesses to upgrade their managerial skills. An alternative may be to encourage the development of extension-type services that operate in zones where household enterprises sell their wares.
- *Encourage development and adoption of technology to link household enterprises with the larger economy.* Approximately 70% of Vietnamese consumers have a smartphone, the cost of 4G is low in Viet Nam, and QR codes (quick response codes; the digital version of a barcode) are becoming increasingly popular. China demonstrates the power of technology for small producers, as many street vendors leapfrogged into mobile economy using Alibaba or Tencent platforms for their business.

FIGURE 15: Source of products purchased by and destination of sales by unregistered household enterprises, as % of total value



Source: adapted from Pasquier et al 2017.

Reform Area III: Connecting Qualified Workers to the Right Jobs

Workers do not have the skills for today's or tomorrow's jobs and a myriad of factors further limit their acquisition of and success in those jobs. While Vietnam's youth are globally recognized for secondary school test scores that rival those of European students, most of Vietnam's labor force has, at best, secondary school and limited skills. Today's skills shortages will be exacerbated as mega-trends begin to affect the jobs pictures.

Even workers with the right skills do not necessarily find jobs aligned with their skills or interests. This may be due to poor information about job openings, poor information about worker quality, time constraints that limit job options, income constraints that prevent moving to more appropriate jobs, or a range of other issues. Three policy areas are presented.

6. Building Worker Skills for Today's and Tomorrow's Jobs through Radical Reforms to the Education and Training Systems

The low average skill level of Vietnam's workforce may already be impeding Vietnam's transition to 21st century jobs. Moving up domestic, regional, and global value chains into service jobs will require skilled workers and managers, and these are currently in short supply in Vietnam. Also, more productive workers will be needed to offset the impending shrinking working age population. A 2015 survey of Vietnamese firms found that more than 20 percent of firms believed that the "education level" of the labor force was an obstacle to their firm's operations, more than three times higher than the percentage in comparable countries in the region.⁷⁵

There are three main issues with the current skills distribution in Vietnam. First, many older workers who did not benefit from Vietnam's quality secondary education system will be in the jobs market for many years to come. Second, there is a flow of new workers, who will be in the labor force at least until the year 2065 and will need to prepare both for today's jobs and for future jobs that are as yet undefined. Third, the kind of jobs available in Vietnam will be changing quickly as the economy transitions toward a flexible and knowledge-oriented economy and the skills needed by the labor market will also change accordingly.

Vietnam has been successful in creating a quality primary and secondary education system that has benefitted its newest generation but not the rest of the workforce. The rates of return to post-secondary training and university are 20 percent and 60 percent respectively, higher than those

of a secondary school graduate.⁷⁶ But 70 percent of Vietnamese workers have less than an upper secondary education.⁷⁷ Many hiring employers say that job applicants lack the skills needed for even the most low-skilled jobs.⁷⁸

Workers in the 21st century need a more complex set of skills than they did in the past.

Today's employers are looking for job-specific technical skills but also for socio-behavioral skills that typically have not been taught by education and training institutions such as problem-solving, oral (and written) communications, ability to work independently, and teamwork skills (Figure 16). These skills are associated with automation, knowledge economy, service sector, and the future of jobs and are prioritized by employers worldwide.⁷⁹ They are only beginning to be included in secondary school and tertiary curricula but are still not standard, and older workers may have had to acquire these skills on the job, if at all.

FIGURE 16: Share of employers identifying each skill as important for their workplace



Source: Bodewig and Badiani-Magnusson (2014).

Digital literacy is increasingly important in the labor market, but it is not systematically taught. In addition to the human skills (socio-behavioral) and higher-order cognitive skills needed to function in a modern workplace, workers will increasingly need to be able to use and interact with technology. This could be as simple as being able to search information on the internet, fill in a spreadsheet, or use an app. However, digital literacy is also not systematically taught in Vietnamese schools. Programming, on the other hand, will only be necessary for a small number of jobs to fill growing knowledge-intensive service sectors.

Employers in Vietnam identify managerial skills as the hardest skill to find.⁸⁰ The 2014 World Management Survey ranked Vietnam 24th out of 37 countries in terms of its managerial skills.⁸¹ This has broad implications for the economy and employment since better managers enable firms and farms to absorb new technologies, adopt new processes, efficiently use inputs (including natural resources), and integrate into new markets. They also are more willing to invest in workforce training. This is a crucial investment so that firms have the capacity to take advantage of the reforms proposed in the first reform area above.

At present, the training sector in Vietnam defines the skills that it will teach, but what is taught is not based on any information from employers or the labor market. The vocational education and training (VET) sector has its own instructors, many of whom have not worked in industry, and there are few opportunities to upgrade their skills. While 20 percent of firms provide their own training⁸² and a large share of workers report that they learn something new on the job daily,⁸³ firm-based training remains largely disconnected from the education and training sectors. Therefore, several policy reforms are needed:

- *Expand the current curriculum to include the broad range of skills demanded by employers.* The education system needs to teach higher-order cognitive skills (including management), digital literacy, and socio-emotional skills,

which are the skills needed by the employers of today and tomorrow. This will require expanding the coverage of education to ensure that every Vietnamese person completes at least a secondary school education and acquires the necessary cognitive and socio-behavioral skills to enter the 21st century job market. Vietnam has already begun to introduce these skills into the curriculum, and it will be important to monitor and fine-tune this initiative where necessary.⁸⁴ Digital literacy also needs to become a core part of the education curriculum since it will be required for even the simplest jobs in the future.

- *Foster the development of lifelong learning opportunities.* Workers are going to have to be able to upgrade their skills and continue to learn over their lifetimes as the nature of jobs changes in response to mega-trends. Therefore, policymakers will need to foster the development of lifelong learning and retraining opportunities including on-the-job training, short training courses in VET institutions and online, and self-guided adult training. Special emphasis will need to be put on technical skills, which are still the primary skill sought by employers. Also, business associations could provide “managerial extension services” to enable current managers to upgrade their skills.⁸⁵
- *Transition from education and training services to a skills development system.* Providing a range of skill development opportunities to a broad population will involve many different actors and will change the role played by the education and training sector. Policymakers should first develop incentives to persuade employers to become providers of, advisors to, and advocates for the skill development system. They should also grant VET institutions and universities autonomy to design and provide their own skills development courses, leaving MOET and MOLISA to focus on carrying out monitoring and evaluation, giving feedback to providers, and conducting results-based quality assurance.
- *Develop and invest in a comprehensive long-term human capital development strategy for*

a diverse jobs market. If Vietnam is to become a knowledge economy and capitalize on the opportunities offered by the mega-trends, it will need a flexible skills development system that can quickly respond to changing skills needs as the jobs market evolves. Vietnam is already developing a Higher Education Strategy, which should be expanded to encompass vocational education and training to ensure that the higher education and VET systems reinforce each other and, collectively, produce the skills that the labor force needs. This strategy will also need to define the responsibilities and roles of the enterprise sector with regard to human capital development.

7. Generating and Providing the Information Needed to Place the Right Workers into the Right Jobs

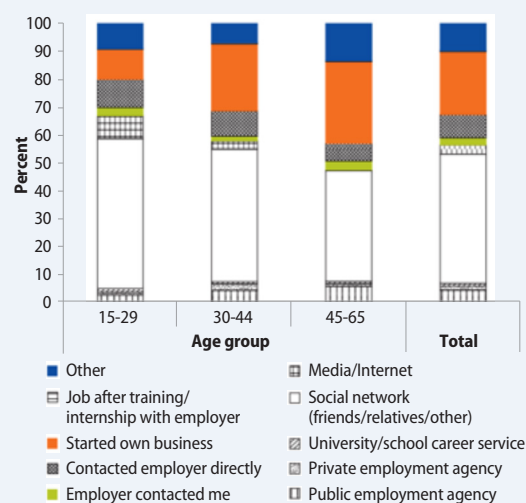
People change jobs in Vietnam. About 27 percent of Vietnam's (age 15 to 64) working age population (15 to 64 years old) changed job type, firm type, or occupation between 2012 and 2014.⁸⁶ Young people (aged 16 to 24) tend to move jobs at a higher than average rate - 36 percent in the same two-year period.⁸⁷ These movements happen despite the high cost to workers of changing jobs, estimated at 3.1 times the average annual wage.

Job-seekers often do not have adequate information about the skills needed for the jobs for which they are applying. Little information is available to job-seekers about vacancies, leaving them ill-equipped to conduct an effective jobs search or to decide what training to pursue to improve their chances. Also, job seekers have many misperceptions about what to expect from the job for which they are applying; more than 40 percent of hiring employers say that the wage or work conditions offered are not acceptable to job candidates.⁸⁸

More than half of job search is through informal means- friends or family – with limited use of broader information sources. Internet-based job search sites are starting to emerge but only 2 to 3 percent of job seekers use these sites (Figure 17). Not surprisingly, young people are the most likely

to find jobs via the internet. However, even person-to-person job search services such as recruitment firms, education institution-based services, and public employment services are used infrequently. Older workers depend more on publicly provided services than do younger workers, but this still accounts for less than 10 percent of job searches by workers aged between 45 and 65 years old.

FIGURE 17: job search methodologies, by age



Source: Bodewig and Badiani-Magnusson (2014)

Two policy reforms can be addressed immediately to provide more useful job search information to current job seekers and to prepare for future developments. Technology, via internet-based information and social media, can play a prominent role:

- *Create a Labor Market Information System (LMIS) to collect and provide information relevant to workers, students, parents, education and training institutes, enterprises, labor exchanges, career counselors, and policymakers.* The system should be built on high-quality data collected by General Statistics Office (GSO), acquired through big-data sources, scraped from on-line job postings and social media; and analyzed by MOLISA. These data will likely need to be supplemented by data collected in regular special surveys aimed at

identifying labor demand. Most importantly, the LMIS will need to use the data to produce and disseminate information that is designed for and targeted to the needs of different users.

- *Develop an integrated job vacancy system.* Vietnam's existing Employment Support Centers (ESCs) have limited vacancy information to provide and few job-seekers use the centers. Privately funded online job-boards provide similar information, but the public and private systems are overlapping and incomplete. To strengthen Vietnam's current system, the government should develop a comprehensive strategy that identifies those segments of the jobs vacancy market that are well served by private providers (search firms, head-hunters, on-line jobs boards) and those that need to be publicly provided. It should also provide incentives to private sector firms to fill some of the gaps, for example, giving subsidies to firms that employ individuals from hard-to-place populations, and revamp the role of the ESCs to provide the most difficult to employ populations with job counselling and referrals.

8. Providing Auxiliary Services to Facilitate Labor Force Participation and Labor Mobility

Factors that are not specific to the labor market can prevent people from working. Demographics may have several implications for workers. First, Vietnam's tradition of aging household members being cared for by their family is no longer sustainable with greater urbanization and women working outside of the home. As the dependency ratio increases, primary caregivers' (women's) options for employment may become more limited. Second, the structure of Vietnam's pension system gives workers an incentive to retire long before they are physically and mentally ready to stop working. Those living in rural areas already work well into their later years, but urban workers are quicker to leave the workforce at the formal retirement age, which is 55 for women and 60 for men. Thus, due to incentives introduced through public policies, some urban residents will spend nearly half of their adult life not working. Third, even those who wish to continue to work may have

difficulty finding jobs due to their obsolete skills, a shifting labor market, employer discrimination, or the need to care for their grandchildren.

The cost of job-upgrading may trap people in sub-optimal jobs. The high cost of labor mobility hinders people from transitioning into more lucrative jobs or taking time out of work to upgrade their skills. Labor mobility is costly, equaling about three times the average annual wage in direct costs, lost earnings, and psychological stress. Similarly, upgrading skills requires workers to take time out of the labor force. The Labor Law imposes significant costs on enterprises that dismiss workers in response to changes in technology, production processes, or market demand. In fact, Vietnam has one of the most generous severance payment schemes in the world. This gives employers the incentive to hold on to jobs that may not be beneficial to the worker or the firm, just as Vietnam is capitalizing on mega-trends that will disrupt the current structure of jobs.

Three policy reforms can address these constraints and get people back to work:

- *Develop a comprehensive long-term care (LTC) system.* Vietnam needs to follow other countries with similar demographic profiles in developing a comprehensive LTC system that provides a broad range of services designed to support aging and disabled people. LTC services can be provided in the home, community, or institutions, they may be full time or for only a few hours a week, they may be paid or free, and they may cover everything from basic social interaction to medical care. To begin this process, Vietnam can learn from the range of models across the East Asia (and Europe) region.
- *Provide services and incentives to encourage people to work longer.* Two policy changes could extend the working life of Vietnam's "young" aging. First, if health care is improved, many people will be physically able to work for longer. This will require the health system to provide more primary care services, shifting care away from acute care hospitals, to improve coordination among health providers, and

to strengthen the quality of the health care workforce. Second, the government might consider providing incentives to encourage people to stay engaged in the economy. Some solutions might include providing job search services tailored to older workers, giving vouchers to employers who hire older workers, creating retraining schemes targeted to those whose education ended long ago, and increasing the retirement age, as has been done in most modern (and aging) countries.

- *Facilitate labor mobility and skills upgrading.* To help workers to adjust to the shifting demands of the market, the government could

consider expanding unemployment insurance in order to facilitate job turnover and to supplement workers' incomes while they are retraining as well as providing learning grants to adult learners to smooth their incomes while they are not being paid. While *ho khau* has been relaxed in law, its implementation will alleviate residency constraints and will enhance the skill level of the future labor force, who may have been denied an education under *ho khau*. With these benefits, the severance pay laws can be adjusted to global norms, thereby reducing the disincentive to firms to hold on to obsolete jobs.

CONCLUSIONS AND INSTITUTIONAL FACTORS FOR DEVELOPING A DELIBERATE JOBS STRATEGY

Vietnam's people are working, the economy is booming by global standards, and the population is the most prosperous that it has ever been.

However, this success may be tenuous in the face of automation, shifting trade and consumption patterns, an aging population, and a labor force that is not prepared for the jobs of the future. Vietnam's ambitions to achieve middle-income status by 2035 will require more than maintaining the status quo with marginal adjustments - it will require some radical changes. Improving the jobs available to the Vietnamese population, whether through the upgrading of current jobs or the creation of new well-paid, high-productivity jobs with good work conditions, will need more than just strong economic growth and a conducive investment climate.

A jobs strategy is not a single set of sectoral policies; instead it involves multiple actors and sectors on the job creation side (enterprises) and labor supply side (workers) as well as public policies to bring the two sides together.

Thus, this report proposes a broad set of policy directions that can be expected to lead to more good and inclusive jobs both in the short run (the continuation of the current context, until 2020) and in the medium run (when global mega-trends cause product markets to change, by 2035 and beyond). We propose that policymakers should:

1. Lower the barriers to growth of domestic small and medium enterprises.
2. Encourage enterprises to move into knowledge-intensive segments in regional and global value chains.
3. Facilitate the development of Vietnam's agro-food system.
4. Encourage the agricultural sector to diversify into high value-added crops.

5. Facilitate business links between household enterprises and SMEs.
6. Build worker skills for today's and tomorrow's jobs through radical reforms to the education and training systems.
7. Provide the information needed to place the right workers into the right jobs.
8. Provide auxiliary services to facilitate labor force participation and labor mobility.

This strategy has the potential to yield better jobs for everybody.

It will not only increase the quantity of jobs in better-paid domestic and foreign firms and raise productivity in traditional family farming and household enterprises but will also bring into the workplace those who are currently disadvantaged in the labor market - young people entering the workforce, women, older workers who are not ready to stop working, and rural households. And by providing supplemental support, it will also encompass those who are currently left behind, including older workers and ethnic minorities.

The strategy will involve various trade-offs in different aspects of the jobs picture.

- *By timeline.* Perhaps the biggest choice is whether to focus on improving jobs in the context of today or to focus on creating jobs for the future. These two strategies are not mutually exclusive as strengthening today's jobs would mean that tomorrow's workers would be better able to take on the new challenges. For example, a more professional and productive household enterprise sector would be ready to be integrated into future domestic value chains. What is needed is to find a balance between investing in the jobs of today and those of tomorrow.

- *By labor market perspective.* By definition, higher productivity – a desirable outcome from a firm’s point of view – should occur by reducing the number of workers – a bad outcome from the worker’s point of view. However, currently in Vietnam productivity enhancements, particularly in domestic firms, are crowding in jobs rather than forcing firms to choose between productivity and jobs. The data suggest that this may not be the case once firms reach higher levels of productivity, but, in the short run, both sides of the market benefit.
- *By sector.* For Vietnam to participate more in domestic and international value chains, policymakers will need to support increased links between sectors, for example, tying the agriculture sector more tightly to manufacturing and services. Therefore, choosing between those three sectors would be a losing strategy, whereas balancing support among all three would be more jobs friendly and economically justified.
- *By type of firm.* The preferential conditions that SOEs and FDI enterprises have enjoyed in terms of access to land, credit, electricity, and other inputs have been necessary to attract investment to Vietnam, particularly when the domestic sector was too immature to use these inputs efficiently. However, the domestic sector is now so strong that it is the main source of contract wage labor in Vietnam and is creating jobs more rapidly than any other sectors. Therefore, it may be time to consider leveling the playing field and scaling back preferential treatment for SOEs and FDI enterprises.
- *By region.* The suggested jobs strategy will require making trade-offs between rural and urban areas. In particular, it will be necessary for policymakers to decide either to encourage investment in secondary cities to build the manufacturing and services associated with agro-value chains or to invest in the country’s transport and logistics so these processes can be done in urban areas as is largely the case today.
- *By demographic group.* The policy trade-offs are perhaps the starkest when it comes to

deciding who will receive preferential policy treatment. Should public resources be spent to strengthen the education system to educate the young or to provide short VET courses and adult learning to educate older workers? Should priority be given to teaching the Vietnamese language to ethnic minorities so they can access education and jobs or should it be given to teaching 21st century skills to high achievers so they are qualified to work in modern firms? Should preference be given to guiding women towards a wider range of career choices or to improving job search tools for the population at large? The answers are not clear, but policymakers could consider proceeding as follows. First, they could let the private sector provide the necessary services such as long-term care services for the elderly and higher education and training, while saving public resources for supervision and for filling any holes left by market failures. Second, they could give firms incentives to take on tasks that would be costly for the government to do, for example, giving them vouchers if they hire older workers rather than spending public money on retraining those workers. Third, taking less expensive public actions such as providing information or financial or other incentives – can be more cost-effective than full-scale government programs.

Perhaps the biggest challenge is to define the exact actions that need to be taken and to turn these priority reform areas into reality.

The current jobs strategy - that better jobs will emerge from solid economic and sectoral development strategies – has had success. This report argues that greater gains are possible through a deliberate jobs strategy that focuses on our eight policy reform areas. The report only proposed reform areas, not specific reforms. To achieve the strategies proposed in this report, it will be necessary to (i) undertake a detailed analysis of existing legislation and practices within each policy area to identify successes, gaps, and implementation failures, (ii) craft new legislation and new processes, together with

a system to monitor implementation and success, and (iii) intense political debate and negotiation to implement the specific policy reforms.

This process will only be successful if the jobs reform agenda is led by a strong champion within government. Unlike sector-specific reforms, a successful jobs agenda requires the engagement of a wide range of government and non-governmental actors. The leadership for this agenda needs to operate above the sectoral ministerial level, in the form of a supra-ministerial coordinating. It would champion the issue across government and across society; lead the development of a shared vision for better jobs, together with quantifiable targets for future jobs and monitor progress toward them; engage and hold accountable a range of government and private sector actors; and lead the whole process toward a shared future jobs vision.

In summary, Vietnam's jobs future is bright. The country can continue on its current path, which will yield job increases, but these rewards will diminish as global trends erode some of Vietnam's comparative advantage and certain groups fall further behind. The government could reform on the margin in an effort to keep up with changing global trends, but this will become difficult as the global economy becomes increasingly crowded by new entrants. Or Vietnam could make some big investments now – in its domestic firms, its labor force, regional and global trade networks, and even in integrating its own economy. These investments would enable Vietnam to leap forward to higher economic status and would yield better and more inclusive jobs for all its citizens regardless of age, gender, or ethnicity.

ANNEX 1: SUMMARY OF POLICY DIRECTIONS

Policy Reform areas	Selected Policy Actions		Long-term goal (by 2035)	
	Short-term (within the current five-year plan)	Medium-term (in future five-year plans)		
Creating More Good Jobs in the Modern Sector	Lower the barriers to growth of domestic small and medium enterprises.	<p>Put together a task force to develop an action plan to level the playing field for private domestic firms vis-à-vis SOEs and foreign firms. The plan should be designed to build the political will to implement the necessary reforms to make this happen.</p> <p>Give relevant information on quality standards to local suppliers with the potential to provide services or goods to MNCs. Also, expand the accreditation system on quality standards into key sectors with the potential to expand exports.</p>	<p>Investments in logistics, finance, marketing, and other professional services to support manufacturing expansion.</p> <p>Establish structures to enable effective dialogue between large public sector firms and SMEs within specific sectors to link SMEs with larger firms, especially MNCs or exporters.</p>	Job growth in domestic SMEs exceeds 5 percent per decade, underpinned by strong links between a dynamic private sector and MNCs.
	Encouraging enterprises to move into knowledge-intensive segments in regional and global value chains	<p>Streamline the regulatory environment for logistics and upgrade domestic infrastructure to foster the creation of logistics services companies.</p> <p>Support linkages between exporting firms and firms producing domestic inputs.</p>	<p>Broaden the Law on High Technologies to encompass a broader range of knowledge-intensive, exportable services.</p> <p>Lift all remaining formal restrictions on service trades such as foreign equity limitations and caps.</p>	More and higher value-added jobs in the exports sector through doubling services as a share of total exports and shifting toward commercial services export industries.
	Facilitating the development of the agro-food system	<p>Upgrade food market infrastructure (such as wholesale and urban wet markets) through public or PPP investments.</p> <p>Strengthen public food safety measures and support the adoption by private companies of HAACP, traceability, and other food system management processes.</p>	<p>Provide incentives for the food industry to encourage them to invest in provincial cities that are closer to the agricultural production base and areas with underemployment.</p> <p>Support labeling, certifying, and other control systems that will make it possible to rebrand Vietnamese agriculture as a sustainable source of global and regional supply.</p>	Better paid and safer jobs in agro-food processing.
Improving the Quality of Existing Jobs in the Traditional Sectors	Encouraging the agricultural sector to diversify into high value-added crops	<p>Adopt policies and programs to accelerate shifts in agricultural land use, especially from mono-crop rice to mixed farming or high-value crop production.</p> <p>Strengthen existing cooperatives to realize economies of scale among small and medium-sized farms.</p>	<p>Support the development of a broad range of private technical, advisory, financial, and other demand-led services for Vietnamese agriculture, including agro-entrepreneurship.</p> <p>Support the professionalization of farmer cooperatives and their provision of a broader range of commercial services.</p>	<p>More well-paid and safer jobs in in primary agriculture and less seasonal variability in these job opportunities.</p> <p>More entrepreneurial youths staying in agriculture.</p>
	Facilitating business links between household enterprises and SMEs	<p>Provide SMEs with information on industry standards, quality standards, and the importance of timely delivery as well as credit options.</p> <p>Introduce market-based and community-based information campaigns and registration platforms.</p> <p>Encourage development and adoption of technology to link household enterprises with the larger economy.</p>	<p>Open one-stop (virtual) shops where household enterprises can go for registration, information, and technical assistance.</p> <p>Provide extension services to the most promising household enterprises.</p>	Household enterprises that buy from and sell to domestic SMEs, thereby increasing profits and reducing risk.

	Policy Reform areas	Selected Policy Actions		Long-term goal (by 2035)
		Short-term (within the current five-year plan)	Medium-term (in future five-year plans)	
Connecting Qualified Workers to the Right Jobs	Building worker skills for today's and tomorrow's jobs through radical reforms to the education and training systems.	<p>Develop a plan with financial incentives to encourage the private sector to provide, guide, and advocate for a more appropriate skills development sector.</p> <p>Integrate a broader range of skills into the primary, secondary, and tertiary curricula.</p>	<p>Define a new role for MOET and MOLISA in overseeing M&E and providing financial incentives to the private sector to encourage the delivery of demand-driven education and training services.</p> <p>Develop a system of continuous learning through demand-driven short courses and skills upgrading for adults.</p>	A demand-driven, flexible, market-based skills development system.
	Providing the information needed to place the right workers into the right jobs	<p>Design, produce, and disseminate labor market information tailored to different users.</p> <p>Assess the current job search system, including the effectiveness of the Employment Support Centers.</p>	<p>Design and implement a Labor Market Information System (LMIS) for systematic data analysis and managing dissemination platforms.</p> <p>Design a job search assistance strategy that includes private sector services supplemented by public Employment Support Centers with an expanded remit to serve the needs of vulnerable populations.</p>	<p>Comprehensive and widely accessible LMIS.</p> <p>A private sector-driven job search system that is widely accessible, with public sector support targeted to excluded groups.</p>
	Providing auxiliary services to facilitate labor force participation and mobility	<p>Develop a plan for a long-term care system for the aging population.</p> <p>Design and implement a voluntary component of the unemployment insurance program for workers without contracts.</p>	<p>Allocate financing to incentivize the creation of markets for long-term care.</p> <p>Finance individual learning and job transfer accounts to facilitate labor mobility over a worker's career.</p>	Fewer barriers to effective preparation for and integration into the labor market.

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FOOTNOTES

- 1 *Doi Moi* launched Vietnam's move toward a market-economy structure by removing a multitude of distortions imposed under central planning (multiple price controls, production quotas, collectivized agriculture, trade and investment restrictions, and a ban on formal private enterprise). Most of these restrictions were lifted in the initial phases of *Doi Moi*, while systems were put in place by the early 1990s that were more friendly to the market and the private sector.
- 2 World Bank and MPI (2016).
- 3 World Bank (2016).
- 4 For example, national rice output more than doubled during this period.
- 5 OECD (2013), available at <https://www.oecd.org/pisa/keyfindings/PISA-2012-results-snapshot-Volume-I-ENG.pdf>
- 6 We are cautious not to claim that all small-scale jobs involve low productivity. For example, family-farmed horticulture and aquaculture have quite high labor productivity. Chapter 2 of the main report discusses primary sector productivity in more detail.
- 7 UN Women (2016).
- 8 As measured as FDI inflows as a percent of GDP in 2016; <http://unctadstat.unctad.org/wds/TableView/tableView.aspx>
- 9 Given time and space constraints, many issues that are important to the jobs story were not included in the report. Some of these issues, such as migration and brain drain or aging and social policy, are addressed in other publications (see Testaverde et al 2017 for migration and brain drain; O'Keefe et al (2015) for aging). Other issues were not included since the depth of analysis that is required goes beyond the scope of this report. Namely, the report does not analyze specific policies or implementation constraints underlying the eight policy areas that are defined in the report. Instead, it encourages subsequent detailed work to assess the adequacy of existing policies to make the changes that are recommended in the report, identify the implementation shortfalls, and develop an action plan.
- 10 The *Doi Moi* strategy had four goals: transitioning from a planned to a market economy, shifting from agrarian production to manufacturing and services, fostering migration from rural to urban areas, and changing Vietnam from a closed to an open export-driven and globally integrated economy (World Bank and MPI (2016)).
- 11 World Bank, World Development Indicators.
- 12 Derived from analysis of 1989, 1999, and 2000 Census and 2014 LFS data.
- 13 World Development Indicators. Derived as GDP per worker, 2011 PPP.
- 14 Merotto et al, (2016).
- 15 Glewwe (2004).
- 16 Dollar and Litvak (1998).
- 17 Dodsworth et al (1996).
- 18 Source: <http://unctadstat.unctad.org/wds/TableView/tableView.aspx>
- 19 Although the share of workers employed in SOEs declined, in 2014, SOEs still accounted for 35 percent of total output.
- 20 McCraig and Pavcnik (2013).
- 21 World Bank (2002), Minh et al (2010), and Malesky and Taussig (2009).

- 22 World Development Indicators. The labor force participation rate was calculated as the number of people age 15 and older who are working or searching for work.
- 23 When limiting the age range to the commonly used working age population age range of 16 to 65, Vietnam's labor force participation rate is 83 percent, with 86 percent of men and 76 percent of women working or looking for work.
- 24 Pasquier et al (2017).
- 25 Source: Input-Output Matrix, GSO, 2012, World Bank and IPSARD (2016).
- 26 Pasquier et al. (2017).
- 27 Author's calculations based on the 2014 and 2015 LFS.
- 28 Pasquier et al (2017); IPSARD and Demombynes and Testaverde (2017) for workers without a contract.
- 29 World Bank and IPSARD (2016).
- 30 World Bank and IPSARD (2016), Pasquier et al (2017), Cunningham and Huertas (2016).
- 31 Pasquier et al (2017).
- 32 Van Nguyen (2017).
- 33 UN Women (2016).
- 34 Action Aid (2016).
- 35 Pasquier et al (2017).
- 36 Demombynes and Testaverde (2017).
- 37 ILO (2016).
- 38 Perova et al (2017).
- 39 UN Women (2016) and Dung and Demombynes (2014).
- 40 In some cases, it may be less of an issue of access to education and more the lack of an opportunity to use the acquired skills. A study exploring poverty in the Central Highlands reported that vocational school graduates from ethnic minorities were less likely than Hoa or Kinh graduates to benefit from this training because they are hesitant to migrate away from their ancestral areas to take up employment in their field of study.
- 41 Due to history and practice, several factors limit the agricultural productivity of ethnic minorities more than that of Kinh or Hoa. For example, cropland owned by ethnic minorities is largely unirrigated and low quality compared with that owned by Kinh and Hoa. Also, communal land-holding, which used to be required by law in Vietnam, aligns with some ethnic groups' sense of collective ownership, making them unwilling to sell collective land.
- 42 Only 1 percent of urban residents are from ethnic minorities, even though they comprise 15 percent of the population nationally (Demombynes and Vu, 2016)
- 43 World Bank and MPI (2016).
- 44 World Bank (2017).
- 45 Jamora and Labaste (2015).
- 46 McKinsey Institute (2016).
- 47 Source: UNCTAD.
- 48 For example, the boom in exports to the United States following the US-Vietnam Bilateral Trade Agreement of 2001 raised the wages of unskilled workers, reduced the skill premium, and was a key driver of poverty reduction in Vietnam because it was concentrated in the unskilled, labor-intensive manufacturing sectors, most notably textiles (Fukase, 2013 and McCaig, 2011).
- 49 Hallward-Driemeir and Nayyar (2017).
- 50 Acemoglu and Autor (2010), World Bank (2016).
- 51 Author's calculations based on the 2011 and 2014 Labor Force Surveys.
- 52 Demombynes and Testaverde (2016).
- 53 These estimates were derived from a logistic estimation strategy using labor and skills data from the Vietnam STEP survey. See Kahn (2018) for details.
- 54 Merotto et al. (2016).
- 55 <http://dantri.com.vn/viec-lam/sau-20-nam-chi-con-9-nguoi-dong-bhxh-cho-1-nguoi-huong-luong-huu-20161017121058517.htm>

- 56 In the US, also an aging economy, there is a notable trend that men are reluctant to join “pink collar” jobs. Even unemployed men would prefer to hold out for non-care jobs than to join nursing or other care professions (https://www.nytimes.com/2017/01/04/upshot/why-men-dont-want-the-jobs-done-mostly-by-women.html?_r=0).
- 57 The correlations were estimated using regression analysis. See Chapter 3 of the main report for details.
- 58 <https://tuoitre.vn/uu-dai-tren-35-300-ti-thue-thu-nhap-cho-doanh-nghiep-ngoai-20171120093626404.htm>
- 59 World Bank (2011).
- 60 Doing Business, available at <http://www.doingbusiness.org/data/exploreconomies/vietnam>.
- 61 Hollweg (2017a).
- 62 For example, estimates suggest that software exports in Vietnam grew on average by 45 percent between 2005 and 2010 to reach US\$432 million.
- 63 Molinuevo (2017).
- 64 In contrast, many of Vietnam’s export manufacturing sub-sectors feature significant imports of raw materials or product components and involve limited backward links into the economy.
- 65 Although urban households also hold a range of jobs, it is far less mixed, with 62 percent deriving income from wage employment and 21 from household enterprise income (the third source of income is remittances).
- 66 Derived from the 2008, 2010, and 2012 VARHS.
- 67 Several factors will contribute to this, including: (i) the trajectory of domestic demand for different food and beverage product lines; (ii) the continued competitiveness of Vietnamese industry, both for its exports (such as aquatic products) and products for which increased import competition can be expected (such as other animal products); and (iii) the technologies used and labor-intensity of production as the industry grows and modernizes. These issues need to be studied further as well as the growth (and employment) prospects for other agro-industrial sectors (such as furniture and other wood products and leather).
- 68 IPSARD estimates based on VHLSS 2014 and GOS data on land use.
- 69 IPSARD’s estimate based on VHLSS 2014 and GOS data on land use.
- 70 Calculated from the 2008, 2010, and 2012 VARHS.
- 71 In fact, households that specialize their production have higher value-added per hectare worked than those who produce multiple types of crops.
- 72 See World Bank and IPSARD (2016).
- 73 Pasquier et al (2017).
- 74 Pasquier et al (2017).
- 75 Cunningham and Perotti (forthcoming).
- 76 Demombynes and Testaverde (2016).
- 77 Vietnam Jobs Diagnostic (forthcoming).
- 78 Bodewig and Badiani-Magnusson (2014).
- 79 Cunningham and Villaseñor (2016).
- 80 Compared to other skillsets like IT, non-IT, writing, and interpersonal skills. Cunningham and Perotti (forthcoming).
- 81 <http://worldmanagementsurvey.org>
- 82 Cunningham and Perotti (forthcoming).
- 83 Bodewig and Badiani-Magnusson (2014).
- 84 Guerra et al (2014) and Cunningham et al (2016).
- 85 Cirera and Maloney (2017).
- 86 Cunningham and Pimhidzai (forthcoming).
- 87 Cunningham and Pimhidzai (forthcoming).
- 88 Bodewig and Badiani-Magnusson (2014).
- 89 Kuddo (2017).



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