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Hong Kong's Labour Market in the Age of Artificial Intelligence

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Since the rapid diffusion of generative artificial intelligence in recent years, its potential impact on the labour market has become a global focus of attention. Views remain divided on how artificial intelligence (AI) will reshape labour markets. On the one hand, AI, as a new general-purpose technology, is expected to enhance productivity, create new tasks and functions, upgrade employment structures and raise wage levels. On the other hand, there are concerns that AI may accelerate the automation of certain types of work and pose challenges to specific occupations and workers. For Hong Kong, the development and adoption of AI not only represent a technological transformation, but may also exert profound influence on the structure of the labour market and the direction of human capital development through changes in job composition and skill requirements. How these effects will materialise, which sectors and segments of the workforce will be involved, and whether such changes are already reflected in local labour statistics all merit further examination.

I. The Productivity Effects of AI and Their Pace of Realisation

The impact of new technologies on the labour market is often non-linear. Historical experience shows that major technological breakthroughs are typically accompanied by a period of adjustment. During this phase, firms need to redesign production processes, invest in equipment and reallocate labour. The associated transition costs may in the short term offset the efficiency gains brought about by new technologies and even weigh on overall productivity performance. Productivity improvements tend to become more visible only after firms and workers have gradually adapted to new operating models and become proficient in using the technology. This

"initial dip followed by subsequent rise" is often described as the Productivity J-Curve (Brynjolfsson, Rock & Syverson, 2018). The adoption of AI may follow a similar trajectory, with efficiency gains emerging only after a period of adjustment rather than being immediately reflected in productivity statistics.

There is still considerable debate in the academic literature regarding the magnitude of AI-driven productivity gains. According to Hulten's theorem, productivity growth depends on two key factors: the share of tasks affected by AI in the overall task content, and the average cost savings in those tasks. Based on this analytical framework, Acemoglu (2024) estimates, using existing studies on time savings and cost reductions across different work tasks, that AI may raise total factor productivity by about 0.71% cumulatively over the next decade. He further notes that this estimate may still be on the high side, as current productivity gains are largely derived from tasks that are relatively easy to learn, whereas the deeper integration of AI into more complex production and service processes will involve tasks that require contextual judgement and are therefore more difficult to automate. Taking this into account, the projected increase in total factor productivity over the next decade is revised down to below 0.55%. While modest, Acemoglu emphasises that such gains are far from negligible and remain economically meaningful.

II. Understanding the Impact of AI on Jobs from a Task-Based Perspective

When analysing the impact of AI on the labour market, focusing solely on "jobs" or "occupations" may not fully capture the reality. A job typically consists of multiple tasks with different functional content. For example, the work of a bank credit analyst includes both standardised components such as data collection, information processing and report writing, as well as elements that require experience and professional judgement, including client communication, risk assessment and credit recommendation. AI may affect only part of these tasks rather than replacing the entire occupation. Its impact therefore tends to be reflected more in changes to job content than in the complete disappearance of occupations.

The task-based framework has become an important perspective for understanding the interaction between technological change and the labour market. The key question is not which occupations will vanish, but which tasks are more exposed to AI and how labour can complement it. Edward W. Felten, Manav Raj & Robert Seamans constructed a quantitative indicator of occupational exposure by analysing the capabilities of generative AI in language modelling and image generation and mapping them to different work tasks (Felten, Raj & Seamans, 2023). Their findings show that different types of AI affect different work components. Language-based generative AI mainly influences tasks related to text processing, content organisation, information synthesis and structured writing, with relatively high exposure among telemarketers, various types of teachers and sociologists. Image-generation AI mainly affects design-related tasks such as visual creation and drawing, with interior designers, architects, chemical engineers, art directors and astronomers showing higher exposure.

From the perspective of skill demand, as repetitive and routine tasks are increasingly handled by AI, firms' requirements for labour will also change. Labour demand does not decline unilaterally; rather, it shifts towards

capabilities that complement AI, such as problem definition, interpretation of analytical outputs, application of technology in specific business contexts, and communication with different stakeholders to make professional judgements. In other words, the introduction of AI alters the relative importance of different skills within jobs.

Task-level changes also have different implications for workers at different career stages. Entry-level positions typically contain more standardised and support-type tasks and serve as an important channel for accumulating experience. When some of these tasks are partially replaced by AI, firms' talent development approaches and promotion ladders may be adjusted. By contrast, workers with substantial practical experience who are able to integrate information and make decisions are more likely to use AI as a tool to enhance efficiency rather than being directly replaced.

Overall, from a task-based perspective, the impact of AI on the labour market is less about the disappearance or emergence of occupations, and more about the reconfiguration of job content and changes in the required skill mix. While some procedural tasks are automated, new AI-related work components also arise. As substitution and job-creation effects coexist, aggregate employment may not change significantly in the near term. Hence, single indicators such as the unemployment rate may not fully capture the ongoing transformation in job characteristics and skill demand within the labour market.

III. Initial Changes in Hong Kong's Labour Market

From the perspective of firm adoption, AI usage among Hong Kong enterprises has already reached a relatively high level. According to the AI Readiness in Workplace Survey 2025 released by the Hong Kong Productivity Council in October 2025, nearly 90% (88%) of surveyed firms reported that their employees had used AI tools in daily work. The main applications are in customer service, data analytics and marketing. More than 90% (92%) of firms plan to introduce AI into their workflows progressively, with about one-quarter (24%) intending to fully adopt AI within one year. Nearly half (45%) already have officially recognised AI platforms for employee use. This suggests that AI is moving from experimental applications towards institutionalised and process-level integration, beginning to reshape firms' operating models.

Changes in the recruitment market also provide early signals. A recruitment platform reported that the total number of job advertisements in Hong Kong declined by more than 10% year-on-year in 2025, with more pronounced decreases in call-centre and customer service roles as well as administrative and office support positions. These roles typically involve more standardised and routine tasks that are relatively easier for AI to handle. Although changes in hiring demand are not solely driven by AI and may also reflect the macroeconomic environment and sectoral cycles, the direction of change broadly corresponds with the scope of technological adoption.

Examining labour market performance by age group reveals some structural developments. The unemployment rate for those aged 15–24 rose from 7.8% in the three-month period from January to March 2023 to 11.2% in the period from November 2025 to January 2026, and has remained in double digits for the past seven months, while the overall unemployment rate increased only modestly from around 3% to below 4%. This remains a preliminary observation and cannot be directly attributed to the diffusion of AI. Nevertheless, it is broadly consistent with the task-based framework in which entry-level roles are more

affected by changes in job content. For early-career job seekers, if some entry-level positions traditionally used for gaining experience are partially replaced by AI, and firms increasingly prefer candidates who can contribute immediately, the school-to-work transition may lengthen, keeping youth unemployment at a relatively higher level.

Taken together, it is still difficult to conclude that AI has had a significant impact on overall employment in Hong Kong. However, from firm adoption, recruitment trends and youth labour market performance, internal adjustments within the labour market are gradually emerging. These changes are more reflected in shifts in job content, skill requirements and entry thresholds rather than in a single aggregate indicator.

IV. Building Adaptability and Competitiveness in Hong Kong's Labour Market in the AI Era

From a medium- to long-term perspective, the widespread adoption of AI brings both adjustment pressures and new momentum for Hong Kong to develop higher value-added economic activities. Given its service-oriented economic structure and relatively high share of knowledge-intensive employment, the impact of AI on Hong Kong's labour market is more likely to be reflected in changes in job content and skill demand. As AI becomes increasingly integrated into business operations, continuously tracking its adoption across industries and skill levels, as well as its impact on labour demand, will help provide a clearer understanding of the direction of labour market adjustment and inform future human capital allocation and education and training.

From the demand side, AI is raising firms' requirements for a broader set of competencies. For Hong Kong, this transformation is broadly aligned with the development of high value-added sectors such as financial services, professional services and innovation and technology. In addition to specialised knowledge, the ability to define problems, integrate information, exercise judgement and collaborate across disciplines will become increasingly important. At the same time, AI is also creating new technical and professional demands, including roles such as cybersecurity specialists, AI engineers, professionals responsible for AI risk management and compliance, and system designers who integrate AI into business processes.

From the supply side, whether the supply of relevant professional talent is sufficient will affect Hong Kong's pace of development in the new cycle of technological adoption. Whether the local education and training system can adjust curricula and training priorities in response to shifts in industry direction will shape the medium- to long-term structure of labour supply. As technological change accelerates, workers' adaptability and capacity for continuous learning will become important factors in determining competitiveness and wage levels. If the adjustment in the skill structure of labour supply broadly keeps pace with changes in demand, this will help enhance the matching efficiency of Hong Kong's labour market.

The impact of AI on the labour market is still evolving, and its magnitude and pace remain uncertain. Historical experience suggests that the key issue lies not in whether technology replaces employment itself, but in whether labour can complement technological change through skill upgrading and adjustments in work practices. For Hong Kong, while continuing to promote innovation and technology development, complementing this with human capital development and skill upgrading will help capture the productivity gains brought by AI and consolidate its long-term competitiveness as a high value-added service economy.

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主 要 經 濟 指 標 (Key Economic Indicators)

一、本地生產總值 GDP	2023	2024	2025/Q3	2025/Q4
總量 (億港元) GDP(HKD 100million)	29,812	31,868	8,577	8,821
同比增長率 (%) YoY change(%)	3.2	2.6	3.7	3.8
二、對外商品貿易 External merchandize trade			2026/1	2025/1-12
外貿總值 (億港元) Total trade(HKD 100million)				
總出口 Total exports	45,317	41,774	5,206	52,403
總進口 Total imports	49,275	46,450	5,347	56,868
貿易差額 Trade balance	-3,958	-4,676	-141	-4,465
年增長率 (%) YoY Growth(%)				
總出口 Total exports	-8.6	-7.8	33.8	15.4
總進口 Total imports	-7.2	-5.7	38.1	15.5
三、消費物價 Consumer Price				
綜合消費物價升幅 (%) Change in Composite CPI(%)	1.9	2.1	1.1	1.4
四、零售市場 Retail market				
零售額同比升幅 (%) Change in value of total sales YoY(%)	-0.9	16.2	5.5	1.0
五、訪港遊客 Visitors				
總人數 (萬人次) Total arrivals(10 thousands)	60.5	3,400.0	481.2	4,989.4
年升幅 (%) YoY change(%)	561.5	5,523.8	1.5	12.1
六、勞動就業 Employment			2025/10-2025/12	2025/11-2026/1
失業人數 (萬人) No. of unemployed(10 thousands)	16.3	11.3	13.8	13.8
失業率 (%) Unemployment rate(%)	4.3	2.9	3.8	3.9
就業不足率 (%) Underemployment rate(%)	2.3	1.1	1.7	1.7
七、住宅買賣 Domestic property sales and price index			2025/12	2026/1
合約宗數 (宗) No. of agreements	45,050	43,002	5,883	5,669
住宅售價指數 (1999=100) Domestic price index	369.7	337.4	299.8	301.4
八、金融市場 Financial market			2026/1	2026/2
港幣匯價 (US$100=HK$) 期末值 HKD exchange rate (US$100 = HK$), end of period	780.8	781.1	781.4	782.5
銀行體系收市總結餘 (億港元) 期末值 Closing aggregate balance(HKD 100million), end of period	962.5	449.5	538.4	539.0
銀行總存款升幅 (%) Change in total deposits(%)	1.7	5.1	-0.1	-
銀行總貸款升幅 (%) Change in total loans & advances(%)	-3.0	-3.6	1.1	-
最優惠貸款利率 (%) 期末值 Best lending rate (%), end of period	5.6250	5.8750	5.0000	5.0000
恒生指數 Hang Seng Index	19,781	17,047	27,387	26,631