Deloitte.

Economics point of view
Human Capital Trends

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Deloitte
Access Economics

Contents

Project background

The purpose of this report is to understand where specific industries and countries within Asia Pacific (APAC) sit on the worker-employer relationship map, supporting the development of workforce strategies that organisations can take to thrive in the future of work.

Over the past few decades, there have been substantial shifts in the way we work, interact and do business. The evolution of organisations from business enterprises to social enterprises has meant that firms are increasingly judged not just on their financial performance, but also on their broader social contributions. With the employer-worker relationship permanently changed, firms face an urgent need to re-assess their organisational structures to ensure that they can continue to thrive in the future of work.

In 2021 Deloitte released a special edition of the Human Capital Trends report titled '*The worker-employer relationship disrupted*'. The report outlined four potential futures for the worker-employer relationship based on the two key contexts of **government impact** and **talent supply**. Government impact includes how government action will affect workers' and employers' roles in the new world of work, while talent supply considers how talent availability will influence how workers seek employment and how organisations access and retain them.

To complement the report, Deloitte Access Economics has developed a quantitative framework to underpin the worker-employer relationship for selected countries in Asia Pacific (APAC), including Australia, New Zealand, Singapore, Korea, Japan, China, India, Indonesia, Malaysia and the Philippines.

This framework helps to provide a contemporary view around where countries and industries lie on the worker-employer map, which may be used to inform the development of tailored workforce strategies within these markets.

Industries included in the analysis

- Agriculture
- Mining and quarrying
- Manufacturing
- Utilities
- Construction
- Transport; information and communication
- Wholesale and retail trade
- Accommodation and food service activities
- Financial and insurance activities
- Professional services
- Education
- Health and social work
- Public administration and defence
- Other services

These are based on industry classifications used by the International Labour Organization (ILO) in their modelling (broadly aligned with the International Standard of Industrial Classifications).

Talent supply and government impact: Key contexts for the worker-employer relationship

Applying the HC trends framework to the worker-employer relationship delivers the four following futures.

Government Impact

How government action will affect workers' and employers' roles in the new world of work.

Talent Supply

How talent availability will influence how workers seek employment and how organisations access and retain them.

Purpose unleashed

Work is work

HIGH

Government Impact

Work as fashion

War between talent

LOW

LOW   **Talent Supply**   HIGH

The four potential futures for the worker-employer relationship

These four potential futures illustrate how the world of work, and the worker-employer relationship could evolve

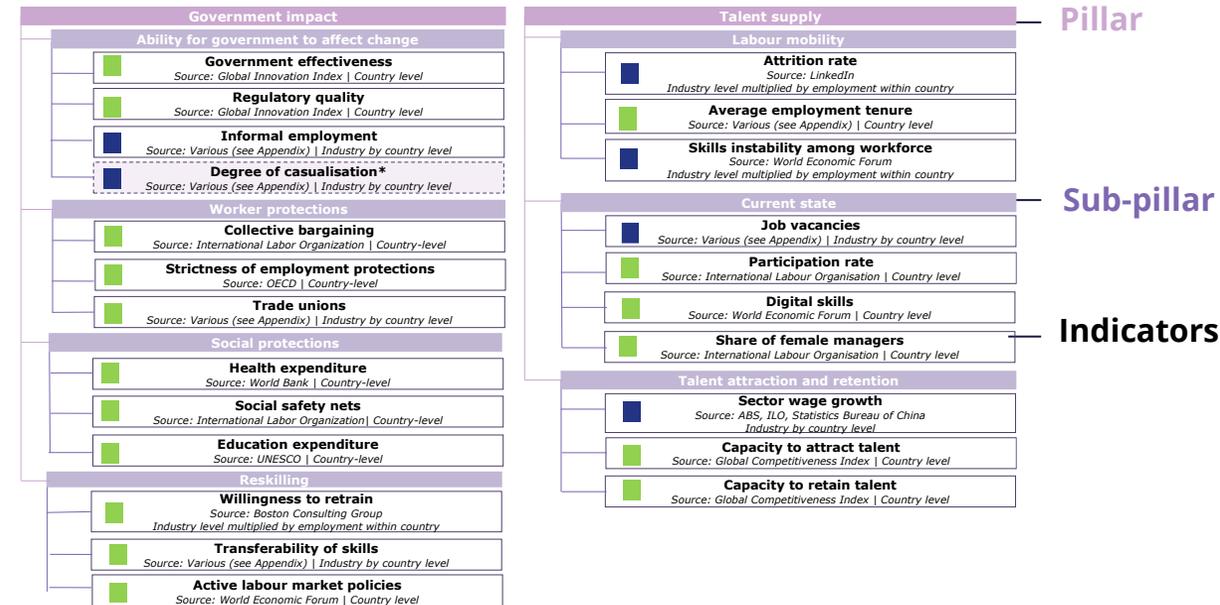| Work as fashion	War between talent	Work is work	Purpose unleashed
The worker-employer relationship is **REACTIVE**	The worker-employer relationship is **IMPERSONAL**	The worker-employer relationship is **PROFESSIONAL**	The worker-employer relationship is **COMMUNAL**
Employers feel compelled to respond in the moment to workers' expressed preferences and to competitor moves, without connecting those actions to a sustainable workforce strategy.	Employers view workers as interchangeable and easily replaceable, and workers are more concerned with competing with each other for jobs than with the quality of their relationship with their employer.	Each depends on the other to fulfill work-related needs, but both expect that workers will find meaning and purpose largely outside of work.	Both workers and employers see shared purpose as the foundation of their relationship, viewing it as the most important tie that binds them together.

Work as fashion	War between talent	Work is work	Purpose unleashed
Work as fashion signals: • Reliance on worker listening tools • Measurement against benchmarks • Increased social activism from employers • Continuous change and rollout of worker programs • More marketing of worker incentives	**War between talent signals:** • Personal funding of education • Increased offshoring • A focus on tech to replace workers • Growth in gig and fractional work • Limited investment in talent	**Work is work signals:** • Benefits that enable outside-of-work activities • Limited investment in talent and less overtime, spending, hours at work • Communicating guardrails on acceptable work behavior • Governments addressing citizen needs and enacting worker protections • Rise of NFPs and social impact organisations • Participation decline in employer sponsored non-work programs	**Purpose unleashed signals:** • New purpose-aligned measures from employers • Purpose is showing up in job descriptions, hiring practices, and performance metrics • Organisations are taking stances on issues they might have stayed silent on • Strengthening purpose and business is a stated criterion for leadership • Increased depth and transparency of reporting on purpose-driven outcomes

Methodology

To develop the worker-employer index, Deloitte Access Economics collected data from various public sources relevant to measuring government impact and talent supply (see Appendix for a detailed breakdown of data sources).

The index is comprised of the following:

- **Two main pillars**: government impact and talent supply. The government impact pillar focuses on how government action will affect the role of workers and employers in the new world of work. The talent supply pillar measures how talent availability will influence how workers seek employment and how organisations access and retain this labour pool.

  - **Sub-pillars** under each pillar (weighted equally under each pillar). For government impact this includes reskilling, social protections, worker protections, and the ability for government to affect change. For talent supply this includes labour mobility, talent attraction and retention, as well as the current state of the labour market.

    - **Indicators** under each sub-pillar (weighted equally under each sub-pillar). By default, the more indicators there are within a sub-pillar the less each indicator contributes proportionately to the overall score.

Government impact

Ability for government to affect change
- **Government effectiveness** — Source: Global Innovation Index | Country level
- **Regulatory quality** — Source: Global Innovation Index | Country level
- **Informal employment** — Source: Various (see Appendix) | Industry by country level
- **Degree of casualisation*** — Source: Various (see Appendix) | Industry by country level

Worker protections
- **Collective bargaining** — Source: International Labor Organization | Country-level
- **Strictness of employment protections** — Source: OECD | Country-level
- **Trade unions** — Source: Various (see Appendix) | Industry by country level

Social protections
- **Health expenditure** — Source: World Bank | Country-level
- **Social safety nets** — Source: International Labor Organization| Country-level
- **Education expenditure** — Source: UNESCO | Country-level

Reskilling
- **Willingness to retrain** — Source: Boston Consulting Group Industry level multiplied by employment within country
- **Transferability of skills** — Source: Various (see Appendix) | Industry by country level
- **Active labour market policies** — Source: World Economic Forum | Country level

Talent supply — **Pillar**

Labour mobility — **Sub-pillar**
- **Attrition rate** — Source: LinkedIn Industry level multiplied by employment within country
- **Average employment tenure** — Source: Various (see Appendix) | Country level
- **Skills instability among workforce** — Source: World Economic Forum Industry level multiplied by employment within country

Current state
- **Job vacancies** — Source: Various (see Appendix) | Industry by country level — **Indicators**
- **Participation rate** — Source: International Labour Organisation | Country level
- **Digital skills** — Source: World Economic Forum | Country level
- **Share of female managers** — Source: International Labour Organisation | Country level

Talent attraction and retention
- **Sector wage growth** — Source: ABS, ILO, Statistics Bureau of China Industry by country level
- **Capacity to attract talent** — Source: Global Competitiveness Index | Country level
- **Capacity to retain talent** — Source: Global Competitiveness Index | Country level

It is further noted that indicators were available at various levels, for example:

- **Country-level indicators**, which were applied consistently across industries within each country.

- **Industry-level indicators**, which were weighted by the share of employment by industry for each country.

- **Industry by country-level indicators.**

Methodology continued

Aggregation

The raw data across indicators varied considerably. To aggregate data across the various indicators, the highest data point for the countries and industries included in our analysis was set to equal one, whereas the lowest data point was set to equal zero. The remaining scores were distributed between these points on a scale of 0-1, where higher scores indicate higher levels of government impact and talent supply.

It should be noted that for the indicators for which we have industry by country values, we have compared the data points to the global maximum and minimum across all countries and industries, rather than the local maximum and minimum for the particular country or industry under consideration, to obtain a relative score between 0 and 1.

Importantly, in relying on relative scores to normalise the data, the index is highly dependent on the selection of industries and countries in the analysis.

Limitations
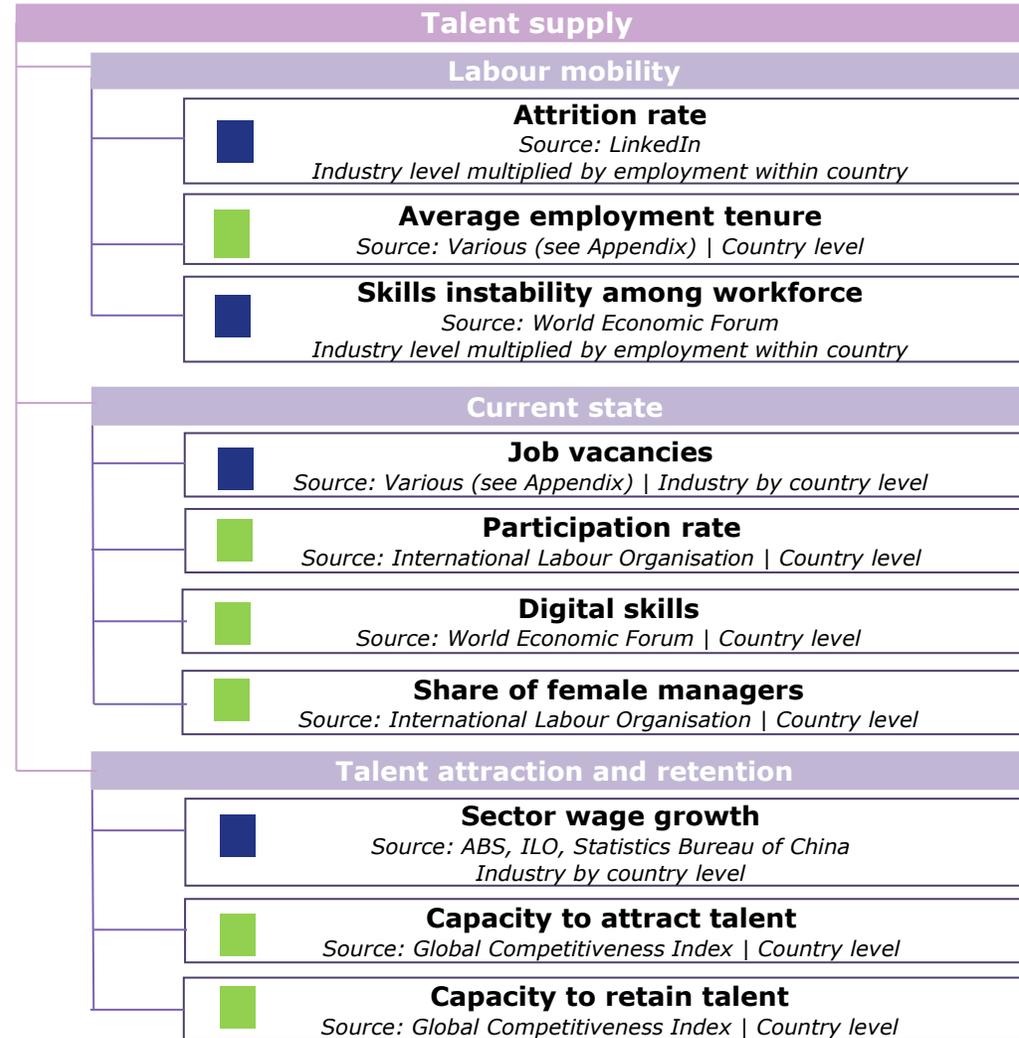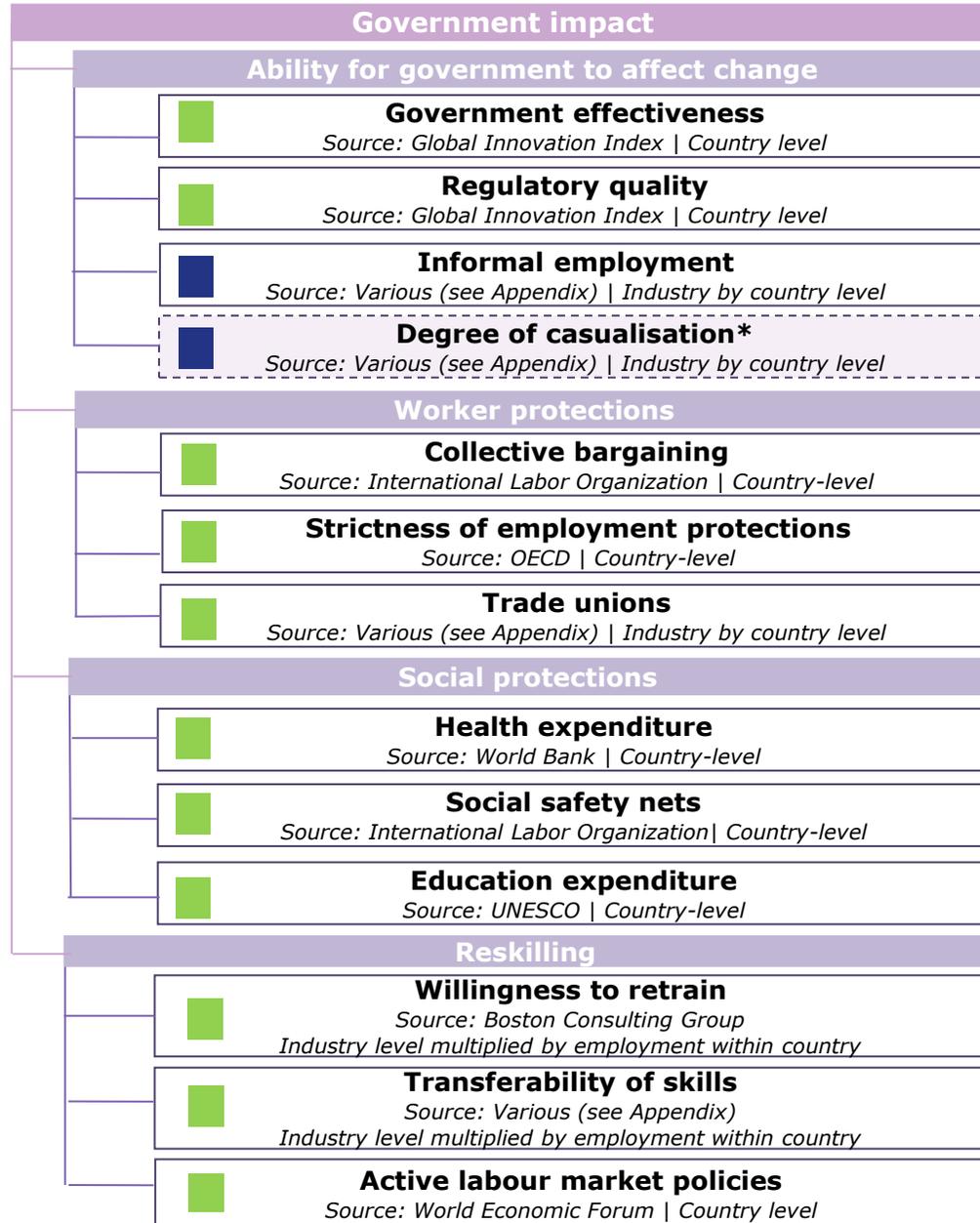
There are some limitations and notes to our modelling which we have outlined below.

We sought to include casualisation data only where the rate of informal employment was low, for example in Australia, New Zealand, Singapore, and Japan. Casualisation data for South Korea was not available. This indicator did not affect overall country scores and only influenced industry breakdowns within countries.

For certain countries, data for some indicators was available only at the country level (as opposed to the industry level within countries). In these scenarios, industry specific values were imputed based on the average industry variation across the other countries in the analysis (controlling for overall country score). In particular, data for China and India tended to be available at the country-level only, and as such, care should be taken when interpreting industry results.

Further information on the indicators and data sources are available in the Appendix. The country slides provide more detailed information around the data for each country.

Components of the worker-employer index

Government impact

Ability for government to affect change

Government effectiveness
Source: Global Innovation Index | Country level

Regulatory quality
Source: Global Innovation Index | Country level

Informal employment
Source: Various (see Appendix) | Industry by country level

Degree of casualisation*
Source: Various (see Appendix) | Industry by country level

Worker protections

Collective bargaining
Source: International Labor Organization | Country-level

Strictness of employment protections
Source: OECD | Country-level

Trade unions
Source: Various (see Appendix) | Industry by country level

Social protections

Health expenditure
Source: World Bank | Country-level

Social safety nets
Source: International Labor Organization| Country-level

Education expenditure
Source: UNESCO | Country-level

Reskilling

Willingness to retrain
Source: Boston Consulting Group
Industry level multiplied by employment within country

Transferability of skills
Source: Various (see Appendix)
Industry level multiplied by employment within country

Active labour market policies
Source: World Economic Forum | Country level

Talent supply

Labour mobility

Attrition rate
Source: LinkedIn
Industry level multiplied by employment within country

Average employment tenure
Source: Various (see Appendix) | Country level

Skills instability among workforce
Source: World Economic Forum
Industry level multiplied by employment within country

Current state

Job vacancies
Source: Various (see Appendix) | Industry by country level

Participation rate
Source: International Labour Organisation | Country level

Digital skills
Source: World Economic Forum | Country level

Share of female managers
Source: International Labour Organisation | Country level

Talent attraction and retention

Sector wage growth
Source: ABS, ILO, Statistics Bureau of China
Industry by country level

Capacity to attract talent
Source: Global Competitiveness Index | Country level

Capacity to retain talent
Source: Global Competitiveness Index | Country level

KEY

Denotes a **positive relationship** between the indicator and pillar

Denotes a **negative or inverse relationship** between the indicator and pillar.

*Casualisation was only included for certain countries where the degree of informal employment was relatively low (for Australia, New Zealand, Singapore, and Japan). However, casualisation did not affect overall country scores.

Results by country

Source: Deloitte Access Economics

Government impact

Highest: New Zealand

Lowest: India

Talent supply:

Highest: Singapore

Lowest: Japan

Key insights

- In general, there is a positive relationship between government impact and talent supply. This is with the exception of Japan which has relatively high government impact but low talent supply.
- New Zealand ranked highest on government impact, driven by its comprehensive social protections.
- While Singapore also ranked highly on government impact, driven by reskilling initiatives, its social protections are not as comprehensive (e.g., expenditure on education).
- Overall, Singapore is the most aligned with a 'purpose unleashed' future.
- Fewer employment structures and strong competition for talent saw India, Indonesia and the Philippines with elements of a reactive 'work as fashion' worker-employer relationship.

Results by country

1 Singapore

Singapore is the most aligned with a purpose unleashed future. It has the highest score on talent supply, driven by a strong capacity to attract and retain talent, as well as having a high labour force participation rate at 71%. Public reskilling initiatives alongside high government effectiveness contributes to its high government impact, however Singapore ranked lowest on education expenditure (as a proportion of GDP).

2 New Zealand

New Zealand ranked highest on government impact, with its social safety nets covering 100% of the population and high spending on education. New Zealand has a strong ability to attract talent (coming in just behind Singapore on this measure), which, alongside its high share of female managers, contributes to its high talent supply.

3 Australia

Australia's high government impact is driven by it having one of the highest collective bargaining coverage rates (47.1%) and social safety nets (100%). Average employment tenure is also the second highest among all countries, leading to a high talent supply score.

4 China

China ranked in the middle on both government impact and talent supply. Though China's regulatory quality was low, its social safety net coverage (70.8%) is higher than other APAC countries. Further, China's collective bargaining coverage was comprehensive and it had strong active labour market policies focused on reskilling unemployed workers. Its low job vacancies also indicate there is sufficient talent available to fill jobs.

5 Japan

Japan is the most aligned with a work is work future. While Japan has one of the highest government impact scores, it ranks the lowest on talent supply. Its high government impact is driven by extremely high health expenditures and comprehensive social safety net coverage. However, Japan's workforce has the lowest level of digital skills among the active population and lowest share of female managers (12%). Combined with its ageing population, this contributes to its low talent supply score.

6 South Korea

Out of all developed markets, South Korea has the lowest government impact and below average talent supply. This has been caused by the provision of fewer active labour market policies on reskilling and relatively low public expenditure on health. Korea also has the second lowest score on female manager share (12.8%) and reduced capacity to attract talent, lowering its talent supply score.

7 Malaysia

Compared to its government impact, Malaysia has a relatively high talent supply, coming in behind Singapore, New Zealand and Australia. Despite high job vacancies in high-skilled jobs, Malaysia's high talent supply score is driven largely by low job vacancies in many of its industries. In comparison, low unionisation rates, social safety nets, and reduced collective bargaining coverage leads to a lower ranking on government impact.

8 Philippines

The Philippines' worker-employer relationship exhibits a work as fashion future. Its low government impact has been caused by extremely low government effectiveness and collective bargaining. Many high skilled industries also face elevated job vacancies. This coupled with a reduced ability to retain talent (3.6 out of 7) contributed to its low talent supply score.
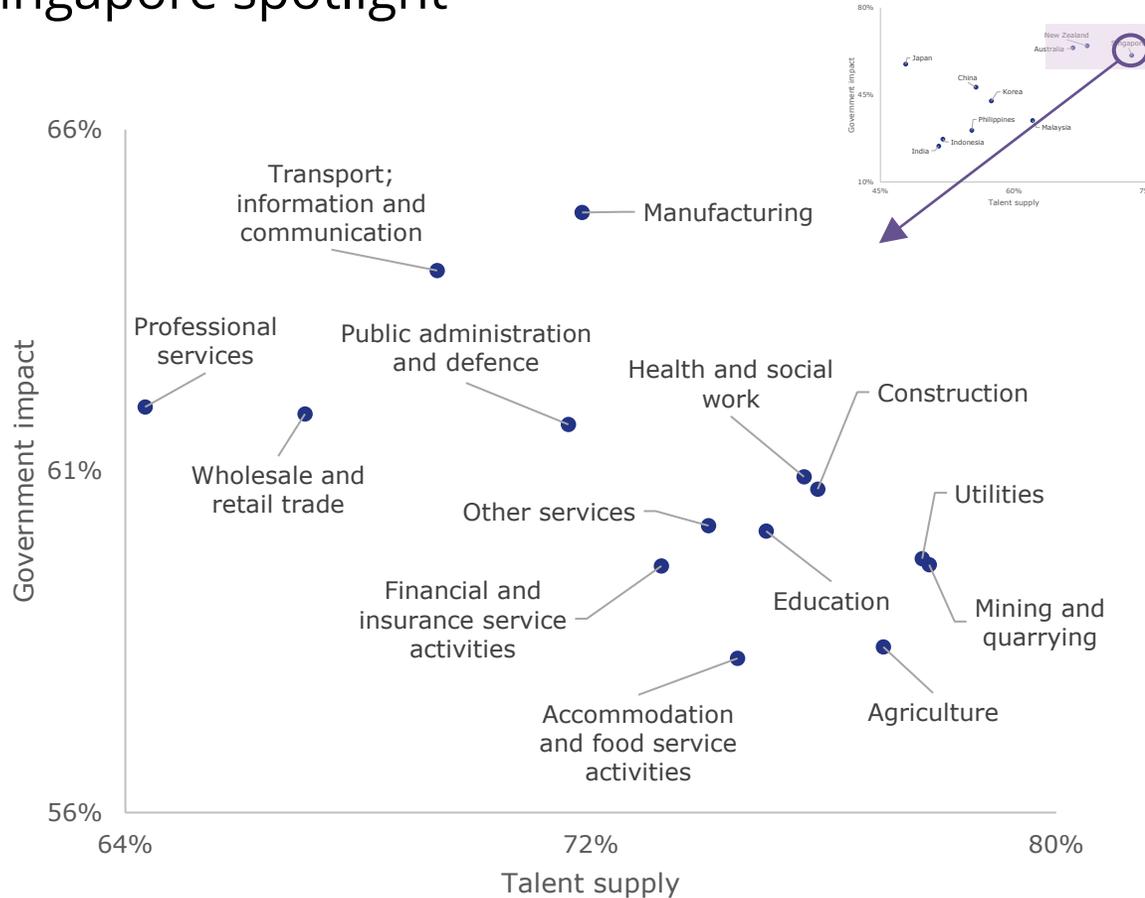
9 Indonesia

Across all countries, Indonesia had the weakest government effectiveness, as well as poor social protections and regulatory quality, which led to its low government impact score overall. Indonesia's reduced talent supply is driven by low digital skills literacy among the population and short employment tenures (20.1 months on average).

10 India

India is the most aligned with a work as fashion future. It has the lowest government impact among all countries considered, driven by its poor regulatory quality and low social safety net coverage (24.4% of the population). Meanwhile, India ranks the second lowest on talent supply, brought about by its low participation rate and digital skills which ranked last among the countries included in this analysis.

Singapore spotlight

Source: Deloitte Access Economics

Population   5.7 million

GDP per capita   US$ 59,798

Government impact

Highest: Manufacturing

Lowest: Accommodation and food service activities

Talent supply:

Highest: Mining and quarrying
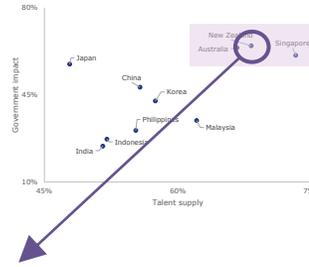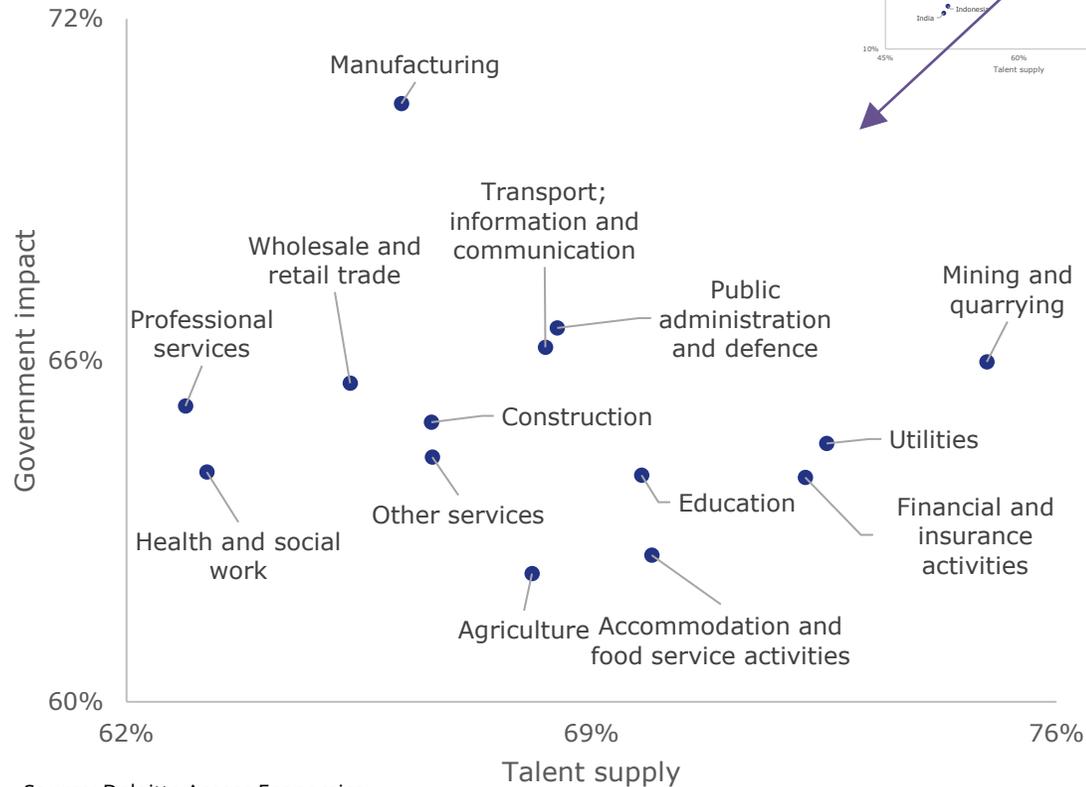
Lowest: Professional services

Key insights

- The manufacturing and transport industries ranked high on government impact, driven by low casualisation rates and high trade union density rates.
- In comparison, accommodation and food services had a high casualisation rate, limiting government's ability to affect change in that industry.
- Singapore ranked highest on talent supply across the APAC markets, in particular driven by its capacity to attract and retain talent, as well as its high participation rate. Within Singapore, the mining and quarrying and utilities industries had high talent supply while strong wage growth in professional services indicates a lower supply of workers in this industry.
- More broadly, Singapore has extremely high government effectiveness, social safety nets and regulatory quality, contributing to high government impact.

Notes on the data

- For informal employment, data by industry was only available for agriculture compared to non-agricultural industries. As such industry-level data for this measure was imputed based on the average variation in industries in APAC, applied to the overall score in Singapore.

New Zealand spotlight

Source: Deloitte Access Economics

Population 5.1 million

GDP per capita US$ 41,478

Government impact

Highest:	Manufacturing
Lowest:	Agriculture

Talent supply:

Highest:	Mining and quarrying
Lowest:	Professional services

Key insights

- Mining and quarrying has the highest talent supply, while professional services is at the greatest risk of talent shortage.
- With the highest skills transferability score, the manufacturing industry in New Zealand ranked highest on government impact. Public administration and defence also ranked highly driven by its concentrated trade union density.
- In comparison, high informal employment in New Zealand's agriculture and accommodation and food services industries contributed to their low government impact scores.
- Compared to the other countries, New Zealand had one of the highest social safety nets and the highest expenditure on education as a proportion of GDP. This, coupled with a small informal workforce, contributes to its high government impact relative to other APAC markets.

Notes on the data
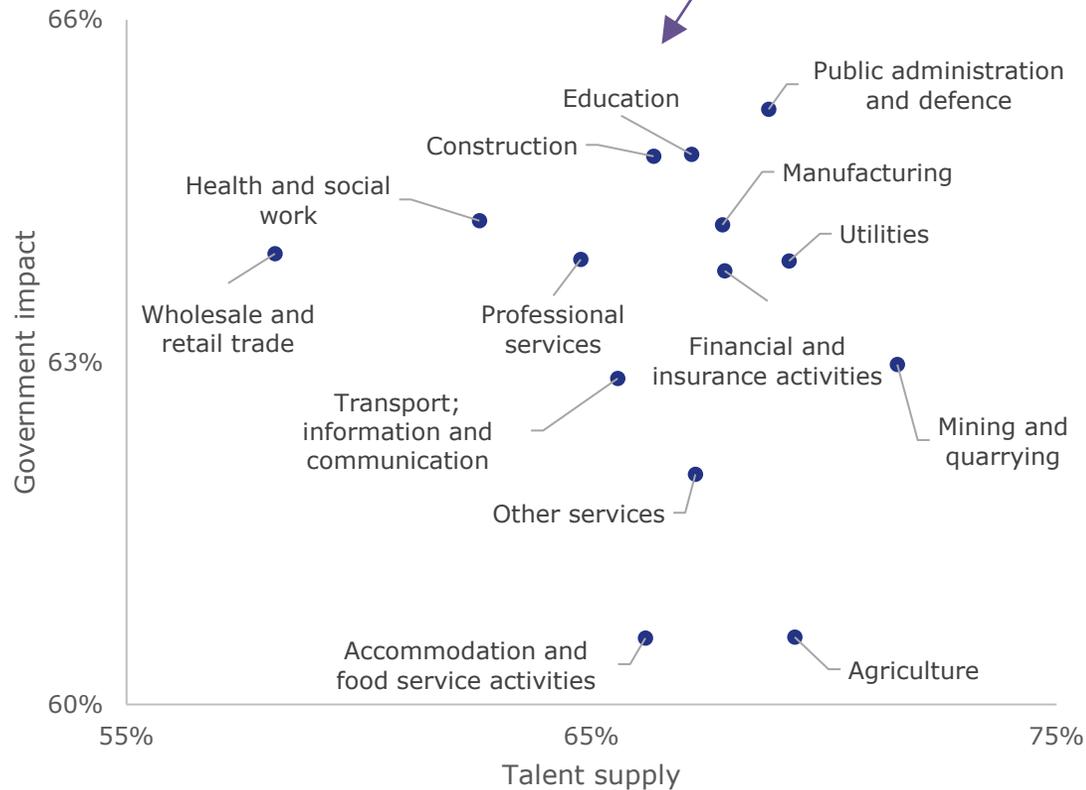
- Job vacancies data for New Zealand reflects growth in job vacancies by industry since 2010 (as opposed to number of job vacancies).

Australia spotlight

Source: Deloitte Access Economics

Population   25.7 million

GDP per capita   US$ 51,812

Government impact

	Highest:	Public administration and defence
	Lowest:	Accommodation and food services

Talent supply:

	Highest:	Mining and quarrying
	Lowest:	Wholesale and retail trade
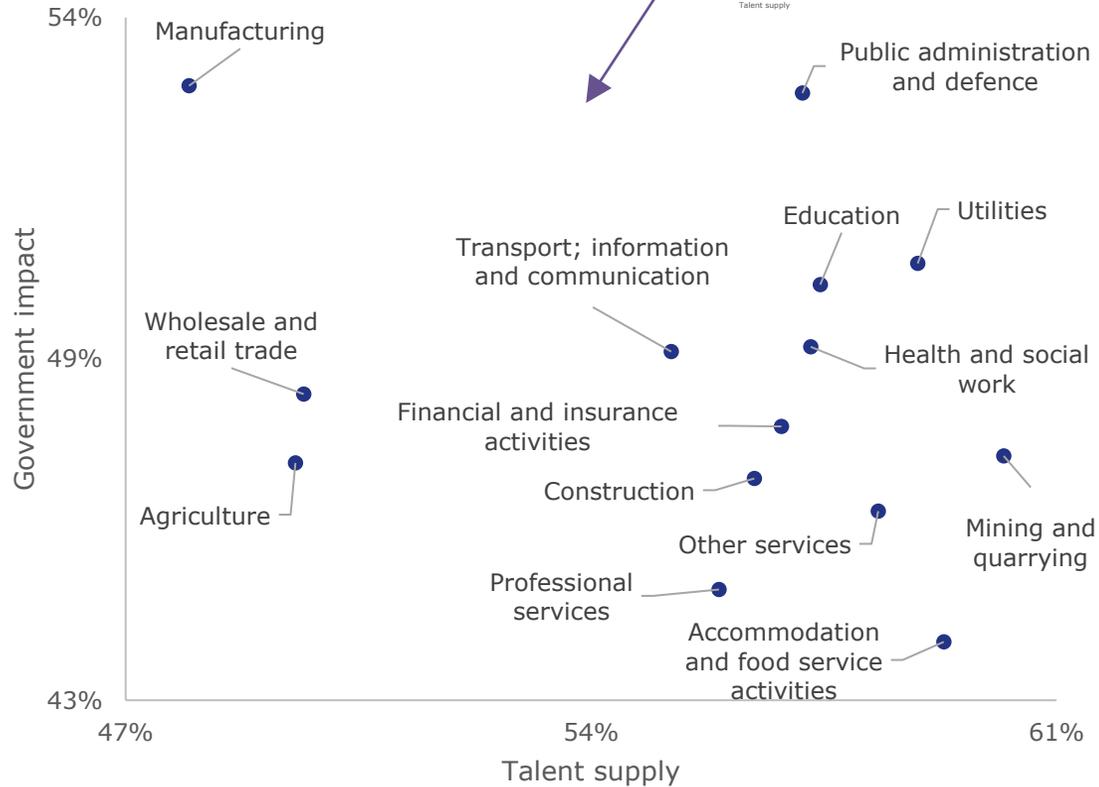
Key insights

- Highly regulated industries such as public administration and defence rank highest on government impact.
- In comparison, accommodation and food services as well as agriculture have the lowest trade union densities across all industries, contributing to low government impact. These industries also tend to have a higher degree of informal employment, meaning the government has a lower ability to impact the worker-employer relationship.
- Mining and quarrying has the highest talent supply, while wholesale and retail trade is at the greatest risk of labour shortage indicated by a high job vacancy rate.
- Compared to the other countries, Australia had one of the highest collective bargaining and social safety nets, leading to high government impact overall.

Notes on the data

- For informal employment, data by industry was only available for agriculture compared to non-agricultural industries. As such, industry-level data for this measure was imputed based on the average variation in industries in APAC, applied to the overall score in Australia.

China spotlight

Government impact (y-axis: 43%–54%), Talent supply (x-axis: 47%–61%)

- Manufacturing
- Public administration and defence
- Education
- Utilities
- Transport; information and communication
- Wholesale and retail trade
- Health and social work
- Financial and insurance activities
- Agriculture
- Construction
- Other services
- Mining and quarrying
- Professional services
- Accommodation and food service activities

Source: Deloitte Access Economics

Population 1,402.1 million

GDP per capita US$ 10,500

Government impact

Highest:	Manufacturing
Lowest:	Accommodation and food services

Talent supply:

Highest:	Mining and quarrying
Lowest:	Manufacturing
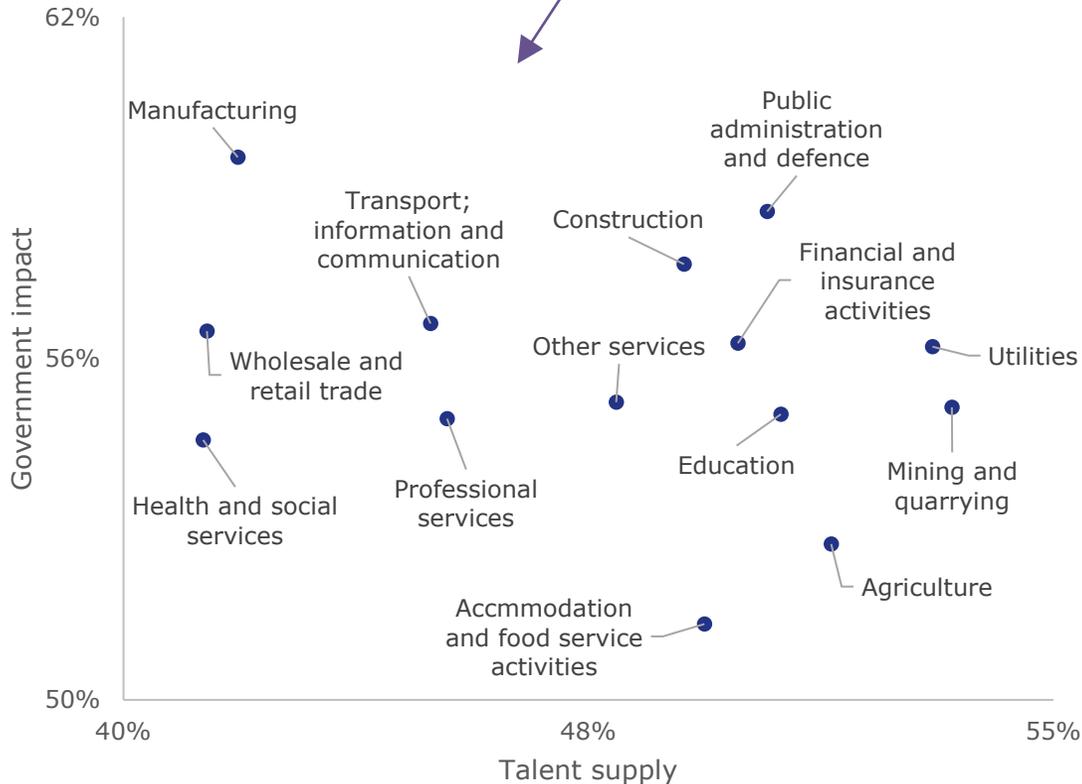
Key insights

- In China, manufacturing is highest on government impact while accommodation and food services ranks the lowest.
- The quality of regulation in China is not as high as other countries such as New Zealand and Singapore, meaning its government impact overall is not as high. However, China ranks highly on collective bargaining compared to other APAC markets.
- In terms of talent supply, high wage growth in wholesale and retail trade compared to overall wage growth in China indicates a lower talent supply in this industry. In contrast, low attrition rates in utilities and mining and quarrying, alongside lower job vacancies, suggests a higher talent supply.

Notes on the data

- Labour market data for China was limited. Job vacancy, trade union, and informal employment data were only available at the country level, meaning industry variation was imputed based on the average variation in industries among the other countries studied and applied to the overall score in China.
- Additionally, data on employment by occupation type within each industry was not available for China, which informed the skills transferability calculations.

Japan spotlight

Source: Deloitte Access Economics

Population	125.8 million
GDP per capita	US$ 39,538

Government impact

Highest:	Manufacturing
Lowest:	Accommodation and food services

Talent supply:

Highest:	Mining and quarrying
Lowest:	Health and social work

Key insights

- The high trade union density in public administration and defence, as well as in the manufacturing industry, contributed to their high government impact scores in Japan.
- In comparison, high casualisation rates in health and social work and wholesale and retail trade limits government impact in these industries.
- However, across all industries, government impact ranked relatively highly in Japan, driven by high health expenditure and social safety nets, as well as a small informal workforce.
- In comparison, Japan scored relatively poorly on talent supply. Compared to other countries, Japan's score on digital skills and share of female managers is among the lowest.

Notes on the data
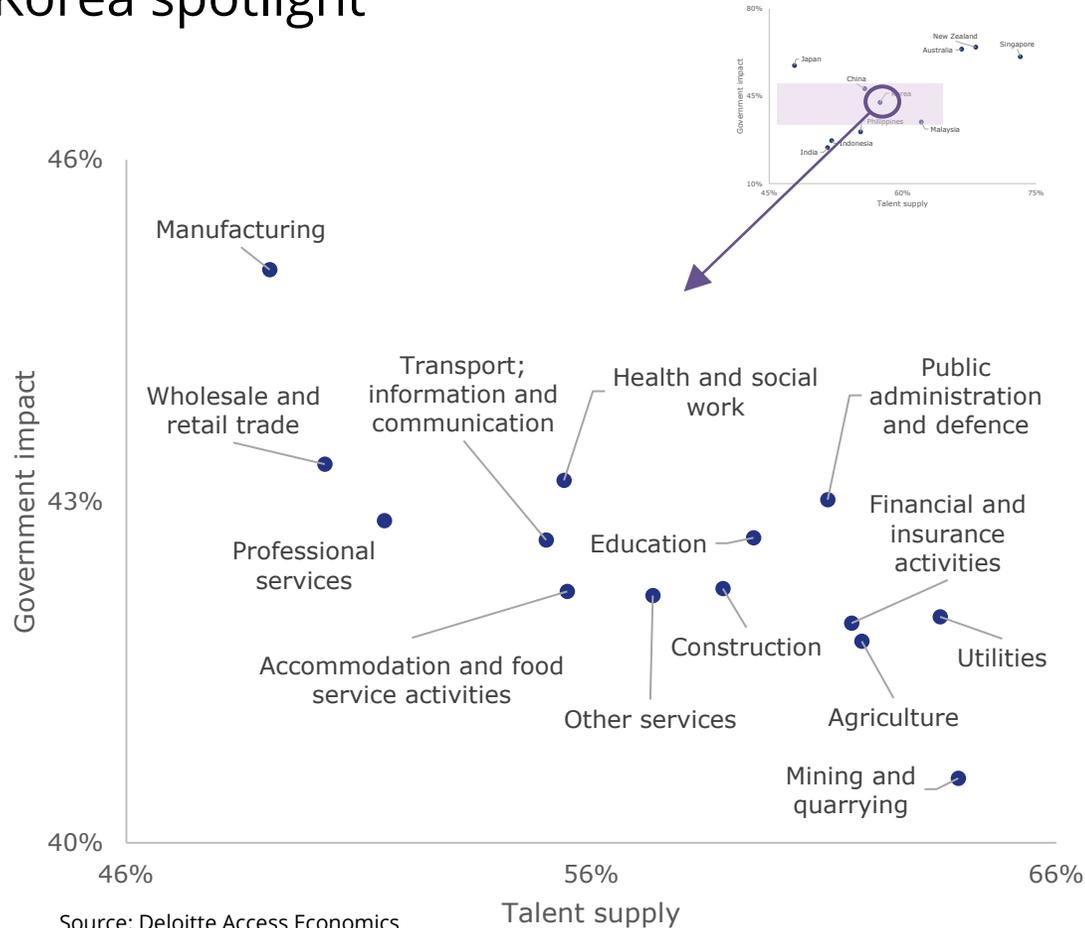
- Japan's trade union density rate was only available up to 2015.
- Further, job vacancies data was only available at the country level. As such, industry variation was imputed based on the average variation in industries among the other countries studied, and applied to the overall score for Japan.

Korea spotlight

Source: Deloitte Access Economics

Population   51.8 million

GDP per capita   US$ 31,489

Government impact

              Highest: Manufacturing

              Lowest: Mining and quarrying

Talent supply:

              Highest: Mining and quarrying

              Lowest: Manufacturing
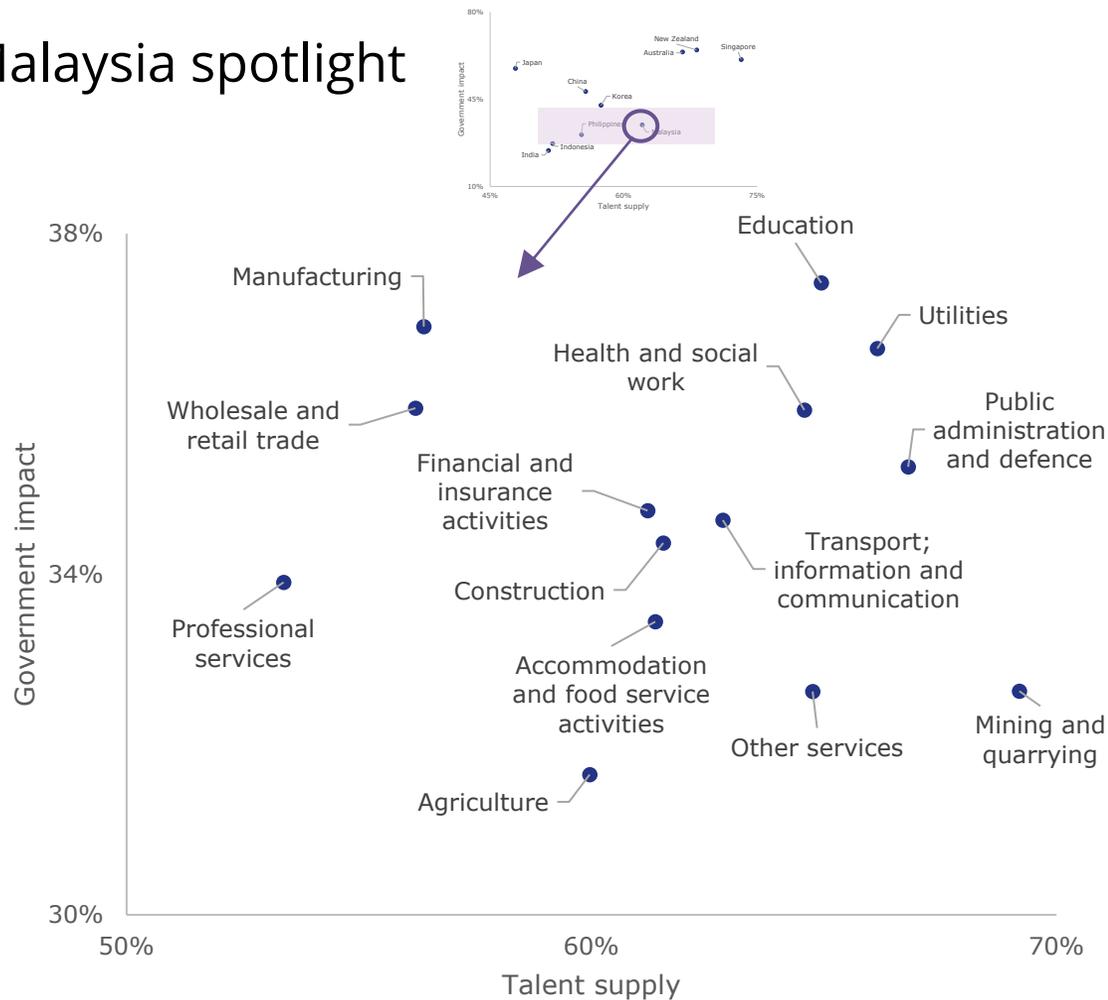
Key insights

- A low willingness to retrain among workers in the manufacturing industry contributed to it having the lowest government impact score within Korea.
- More broadly across industries in Korea, fewer active labour market policies focused on retraining and reskilling unemployed workers dampened its government impact scores.
- Lower job vacancies in mining and quarrying and in financial services contributed to higher talent supply scores in these industries. More broadly, Korea scored the second lowest in terms of the share of female managers, indicating Korea could do more to leverage its female talent supply.

Notes on the data

- As trade union and informal employment data were only available at the country level, industry variation was imputed based on the average variation in industries among the other countries studied, and applied to overall country scores in Korea.

Malaysia spotlight

Source: Deloitte Access Economics

Population   32.4 million

GDP per capita   US$ 10,402

Government impact

Highest:	Education
Lowest:	Agriculture

Talent supply:

Highest:	Mining and quarrying
Lowest:	Professional services
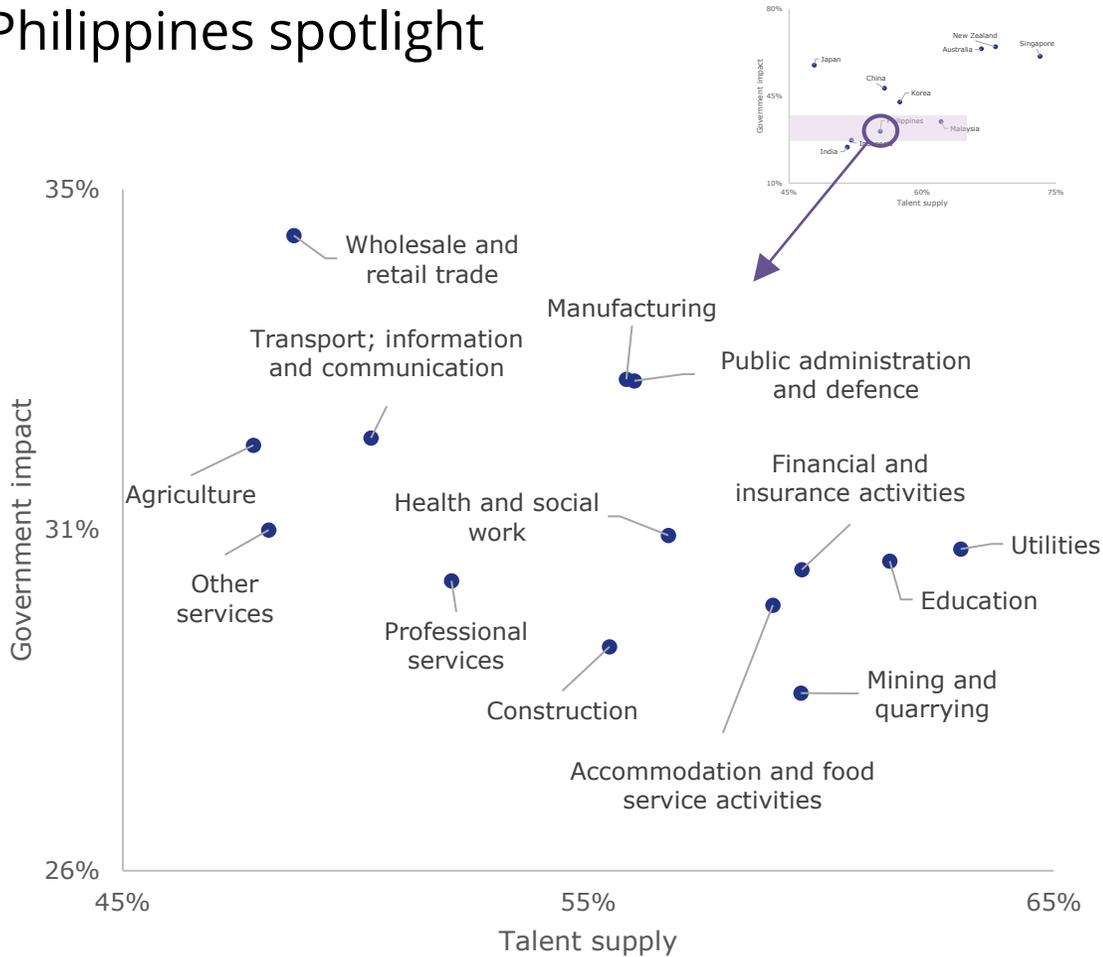
Key insights

- Malaysia ranked relatively low on government impact, scoring higher only than India, Indonesia and the Philippines. This was driven by low unionisation rates, low social safety nets, and the lowest collective bargaining coverage across APAC.
- Within Malaysia, education had the highest government impact driven by high skills transferability for workers within this industry, while agriculture had the lowest.
- Many high-skilled industries such as information and communication, professional and financial services had very high job vacancy rates compared to the same industries in other countries, lowering their talent supply scores.
- Furthermore, high wage growth in professional services indicates low talent supply in that industry.

Philippines spotlight

Source: Deloitte Access Economics

Population   109.6 million

GDP per capita   US$ 3,299
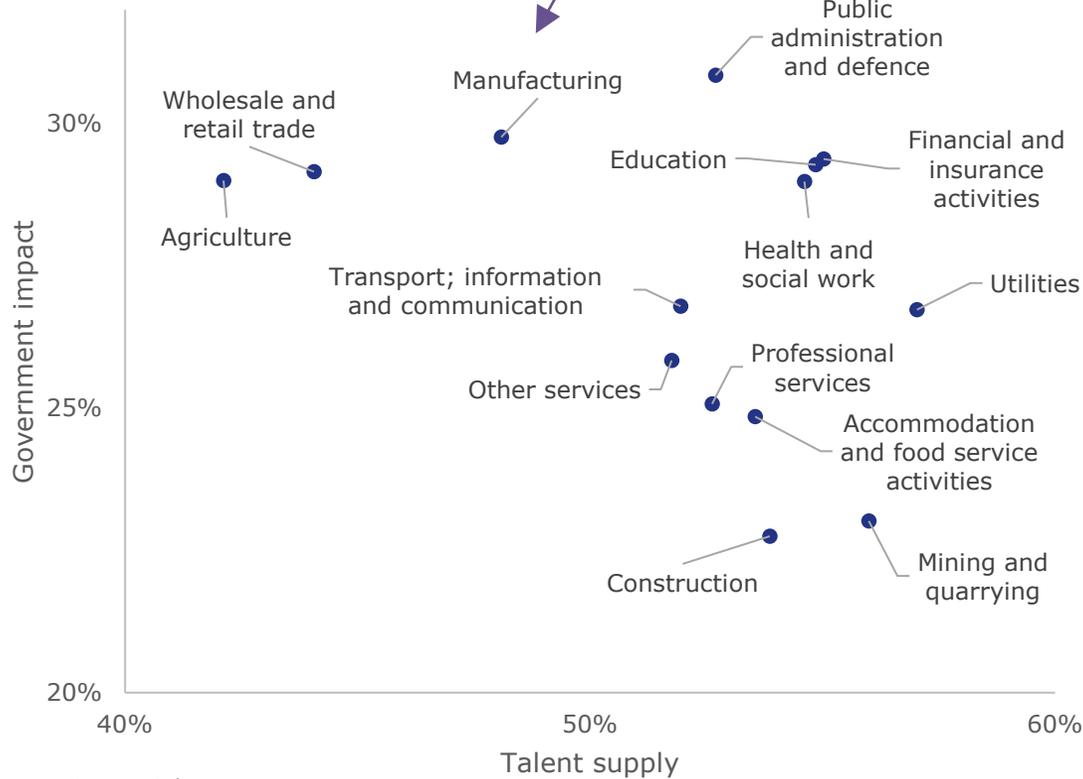
Key insights

- In the Philippines, a higher willingness to retrain among wholesale and retail trade workers contributes to its higher government impact scores.
- Compared to other APAC markets, Philippines faces low government effectiveness and collective bargaining, leading to low government impact in the country.
- Utilities has the highest talent supply in the Philippines. In comparison, a high concentration of informal employment in agriculture contributes to low talent supply in this sector. Furthermore, very high wage growth in other services and agriculture signals high demand for workers with relevant skills in this sector (and low talent supply).

Notes on the data

- As informal employment and trade union data were only available at the country level, industry variation was imputed based on the average variation in industries among the other countries studied.

Indonesia spotlight

Source: Deloitte Access Economics

Population 273.5 million

GDP per capita US$ 3,870

Government impact

Highest: Public administration and defence

Lowest: Construction

Talent supply:

Highest: Utilities

Lowest: Agriculture
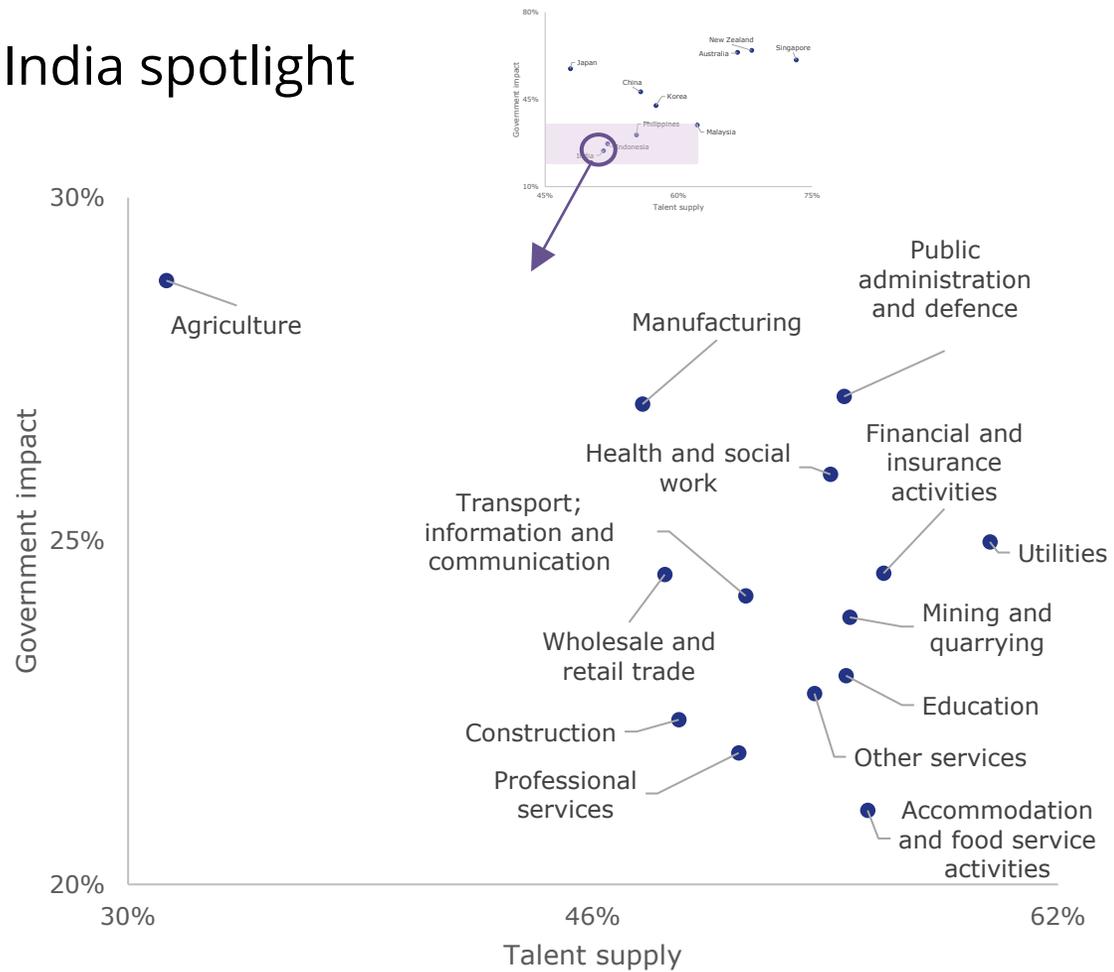
Key insights

- In Indonesia, public administration and defence has the smallest informal workforce while financial and insurance services comes second, allowing for high government impact in these industries. Construction ranked the lowest on government impact.
- Compared to other APAC markets, Indonesia faces the lowest government effectiveness as well as low social protections and regulatory quality, lowering its government impact score. Indonesia also has a large informal workforce, further contributing to its low government impact.
- Considering its talent supply, low wage growth in education and utilities relative to average wage growth more broadly indicates higher talent supply in these industries. In comparison, agriculture ranked lowest on talent supply within Indonesia.

Notes on the data

- As trade union and job vacancy data was only available at the country level, industry variation was imputed based on the average variation in industries among the other countries studied.
- The latest data for informal employment is available for 2010.

India spotlight

Source: Deloitte Access Economics

Population   1,380.0 million

GDP per capita   US$ 1,901

Government impact

         Highest: Agriculture

         Lowest: Accommodation and food services

Talent supply:

         Highest: Utilities

         Lowest: Agriculture

Key insights

- Overall, India received the lowest government impact score of all APAC markets, driven by low regulatory quality and lack of available social safety nets.
- At an industry level, agriculture within India ranked the highest. This was driven by a high willingness to retrain among agricultural workers and the high share of employment in this industry in India.
- India also had the lowest talent supply among APAC markets considered in our analysis, ranking low on overall participation in the labour market and on digital skills among the active population.
- At an industry level, talent supply was highest in utilities which was largely driven by negative wage growth in this sector, which potential indicates an over-supply of talent in this industry.
- In contrast, agriculture had the lowest talent supply driven its low scores on the labour mobility sub-pillar and in particular the high attrition rate in this sector.

Notes on the data

- As trade union and informal employment data were only available at the country level, industry variation was imputed based on the average variation in industries among the other countries studied.
- The latest date for trade union membership was 2011.
- Data on job vacancies was not available and as such has been imputed based on the job vacancy rate in comparable markets.

Appendix

Data sources: Government impact

Indicator	Description	Source
Government effectiveness	The quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Higher government effectiveness imply higher government impact.	Global Innovation Index
Regulatory quality	The ability of the government to formulate and implement sound policies and regulations that permit and promote private-sector development. Better regulatory quality imply higher government impact.	Global Innovation Index
Informal employment	The proportion of the economy that is employed informally. A higher proportion of individuals employed informally is associated with lower levels of government impact.	Various
Australia, Singapore		Imputed
New Zealand		Stats NZ
Japan		ILO
Korea, Philippines, India		ILO
China		IZA
Indonesia		Asia Development Bank
Malaysia		Department of Statistics Malaysia
Degree of casualisation	The proportion of workers not entitled to paid leave, which includes paid sick leave or paid annual leave. A higher proportion of individuals employed casually is associated with lower levels of government impact.	Various
Australia		ABS
New Zealand		Stats NZ
Singapore		Ministry of Manpower Singapore
Japan		Statistics of Japan
Collective bargaining	All negotiations which take place between an employer, a group of employers or one or more employers' organisations, and one or more workers' organisations, for determining working conditions and terms of employment; and/or regulating relations between employers and workers; and/or regulating relations between employers or their organisations and a workers' organisation or workers' organisations. Higher collective bargaining rates indicate higher potential for government impact.	ILO
Strictness of employment protections	Indicators of the strictness of regulation on dismissals and the use of temporary contracts. Stricter employment protections imply higher government impact.	OECD

Data sources: Government impact

Indicator	Description	Source
Trade unions	The percentage of workers who are members of industry trade unions that bargain on their behalf. Higher trade union density indicates higher government impact.	Various
Australia		ABS
New Zealand		Centre for Labour, Employment and Work
Singapore		Ministry of Manpower Singapore
Japan		Statistics of Japan
Malaysia		Department of Trade Union Affairs
Philippines		Department of Labor and Employment
China		China National Bureau of Statistics
Korea		Ministry of Employment and Labor
India		ILO
Indonesia		Ministry of Manpower Indonesia
Health expenditure	Total general government expenditure on health, expressed as a percentage of GDP. Higher expenditure implies a higher level of government impact.	World Bank
Social safety nets	A basic set of essential social rights and transfers, in cash and in kind, to provide a minimum income and livelihood security for poor and vulnerable populations and to facilitate access to essential services, such as health care. Higher social safety net coverage implies higher government impact.	ILO
Education expenditure	Total general government expenditure on education, expressed as a percentage of GDP. Higher expenditure implies a higher level of government impact.	UNESCO
Transferability of skills	The degree of skills similarity across occupations. A higher degree of skills similarities is associated with a greater ability to transition to new roles, allowing for higher government impact.	O*NET with Deloitte Access Economics analysis
Willingness to retrain	The percentage of workers who would reskill for a new job by country. A higher level enables greater government impact.	BCG
Active labour market policies	The extent to which labour market policies help unemployed people to reskill and find new employment. A greater number of such policies indicates a higher level of government impact.	Global Competitiveness Index

Data sources: Talent supply

Indicator	Description	Source
Attrition rate	The rate at which employees leave their employer. This is often calculated by taking the number of employees who leave over a given time frame, expressed as a percentage of the total number of employees in an organisation. A higher attrition rate implies lower levels of talent supply.	LinkedIn
Average tenure of employment	The length of time workers have been working with their current employers. A longer tenure signifies higher talent supply.	Various
Australia, New Zealand, Japan, Korea		OECD
Singapore		Singapore Business Review
China		China Internet Watch
Malaysia		Ambition
India		Times of India
Indonesia		Asia Development Bank
Philippines		Asia Development Bank
Skills instability among workforce	The proportion of an employee's core skills required to perform their roles in the next four years which will be different to their existing skills in their current roles. A higher level of skills instability indicates a lower level of talent supply.	World Economic Forum
Job vacancies	The proportion of job vacancies (a paid role that is newly created, unoccupied, or about to become vacant), expressed as a percentage over the total employment plus total number of vacancies. A higher number of job vacancies indicates a lower level of talent supply.	Various
Australia		ABS
New Zealand		Stats NZ
Singapore		Singapore Department of Statistics
Korea		Statista
Malaysia		Department of Statistics Malaysia
Japan, Indonesia		CEIC
China		Trading Economics
Philippines		Philippine Statistics Authority

Data sources: Talent supply

Indicator	Description	Source
Participation rate	The proportion of the total labour force over the total working age population. A higher participation rate signifies higher talent supply.	ILO
Digital skills	The extent to which the active population possesses sufficient digital skills, such as computer skills, basic coding, or digital reading. A higher score indicates a more digitally proficient population.	World Economic Forum
Share of female managers	A higher proportion of female managers indicates greater female representation in leadership positions.	ILO
Sectoral wage growth	Higher wage growth implies higher demand for workers, and thus low talent supply.	Various
Australia		ABS
China		National Bureau of Statistics China
All other countries		ILO
Capacity to attract talent	A country's ability to attract talented workers from abroad, expressed as an index ranging between 1-7. A higher capacity to attract talent indicates higher talent supply.	Global Competitiveness Index
Capacity to retain talent	A country's ability to retain talented workers, expressed as an index ranging between 1-7. A higher capacity to attract talent indicates higher talent supply.	Global Competitiveness Index

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