

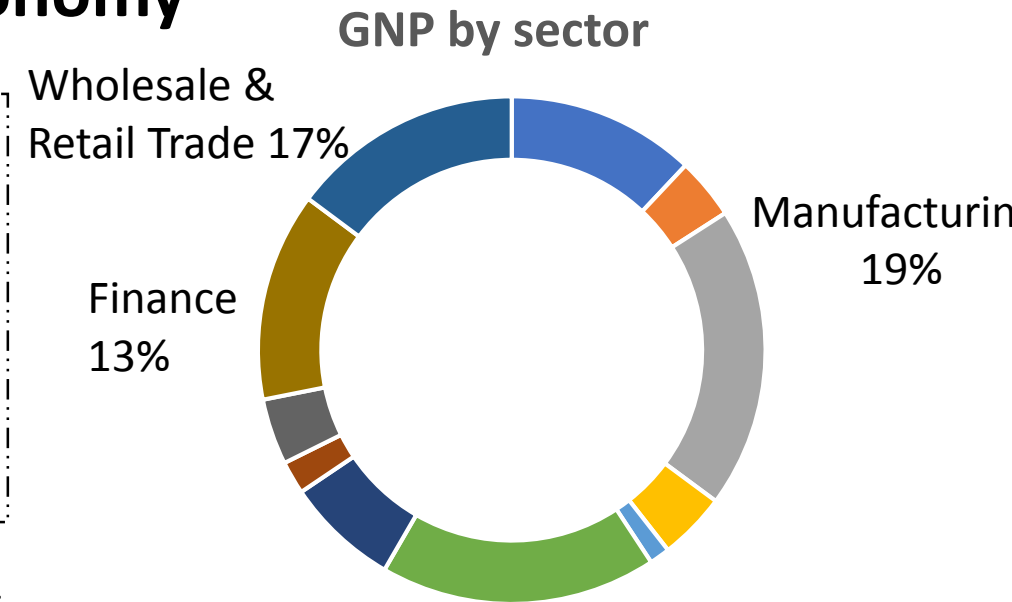
# Singapore's Economy Challenges and Concerns

Presenter: Ng Wei Xuan

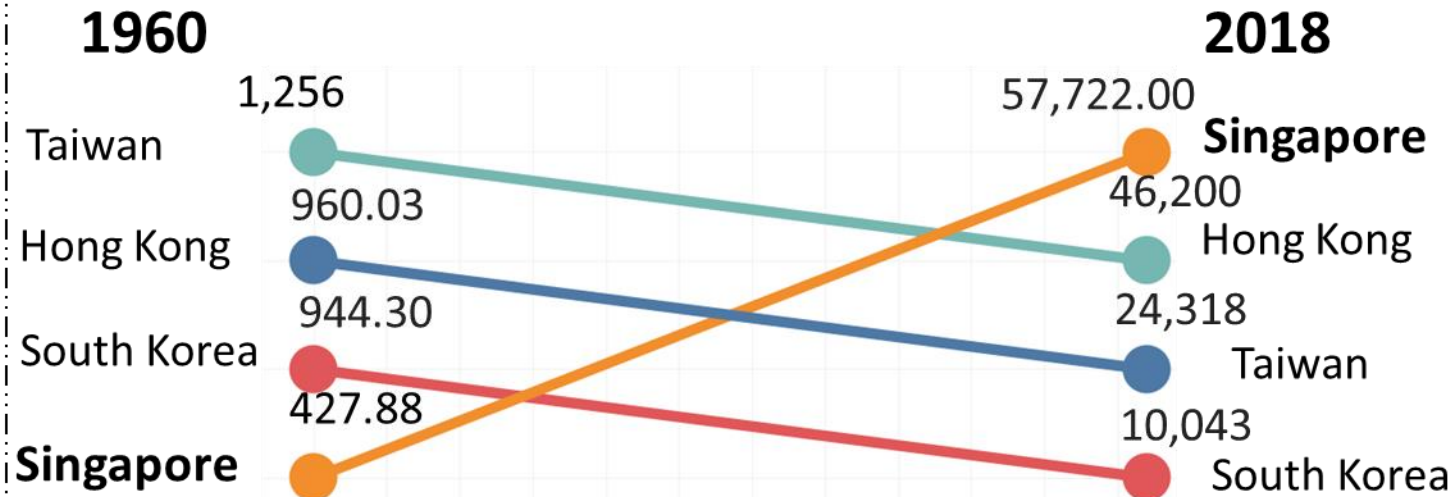


# Introduction: Singapore Economy

- Singapore has evolved from a small fishing village to a modern trading hub
- The economy of Singapore is a highly developed free-market economy.



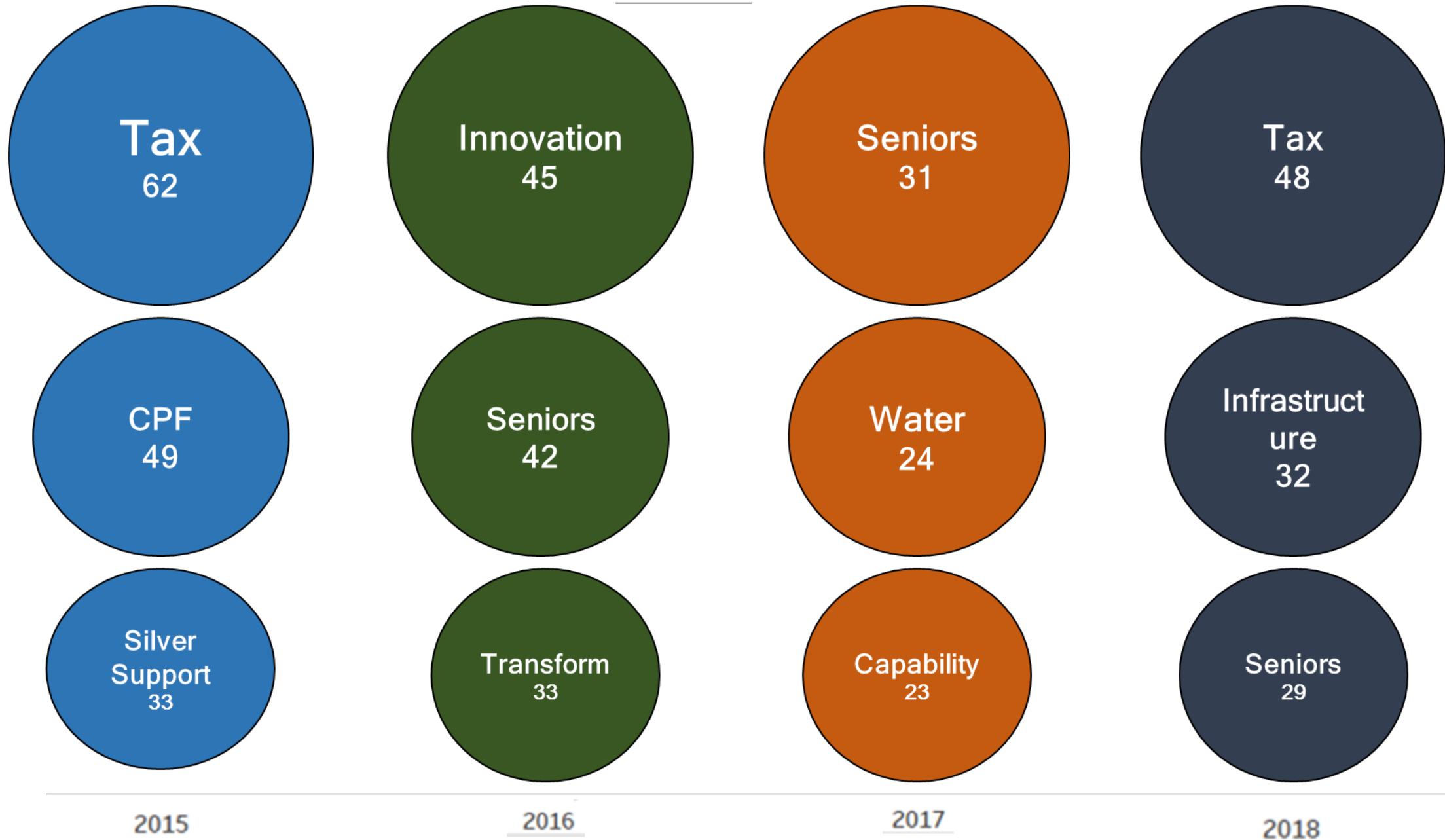
## GDP Per Capita



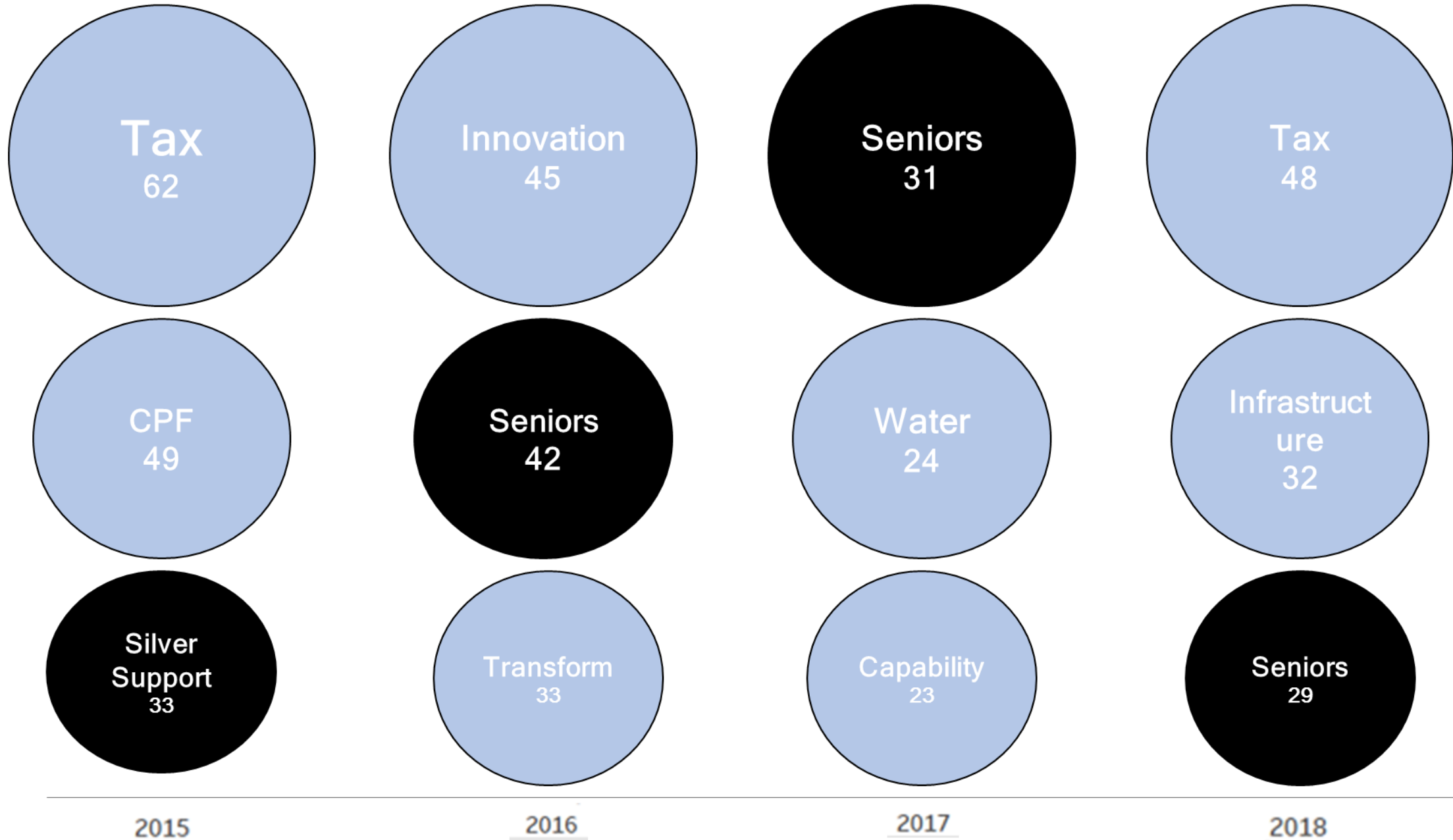
Trade to GDP Ratio  
Highest Worldwide

322%

# Budget Speech: What are our concerns?



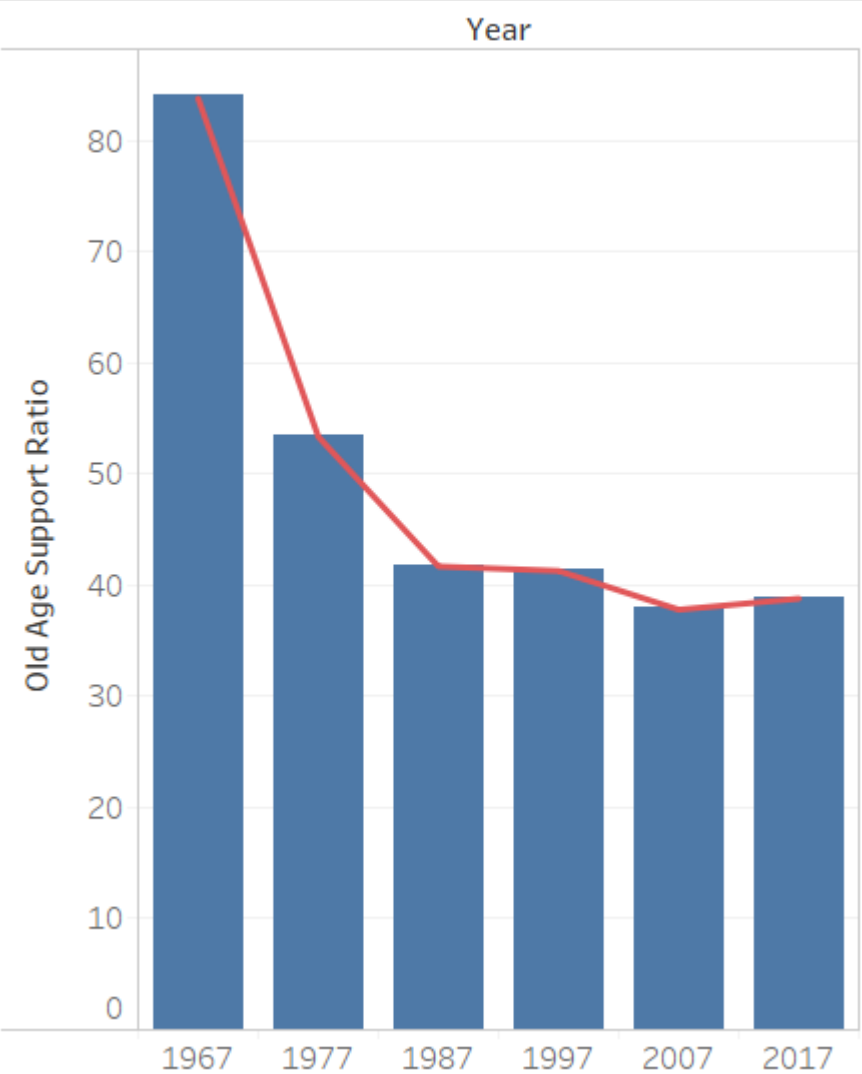
# Ageing Population





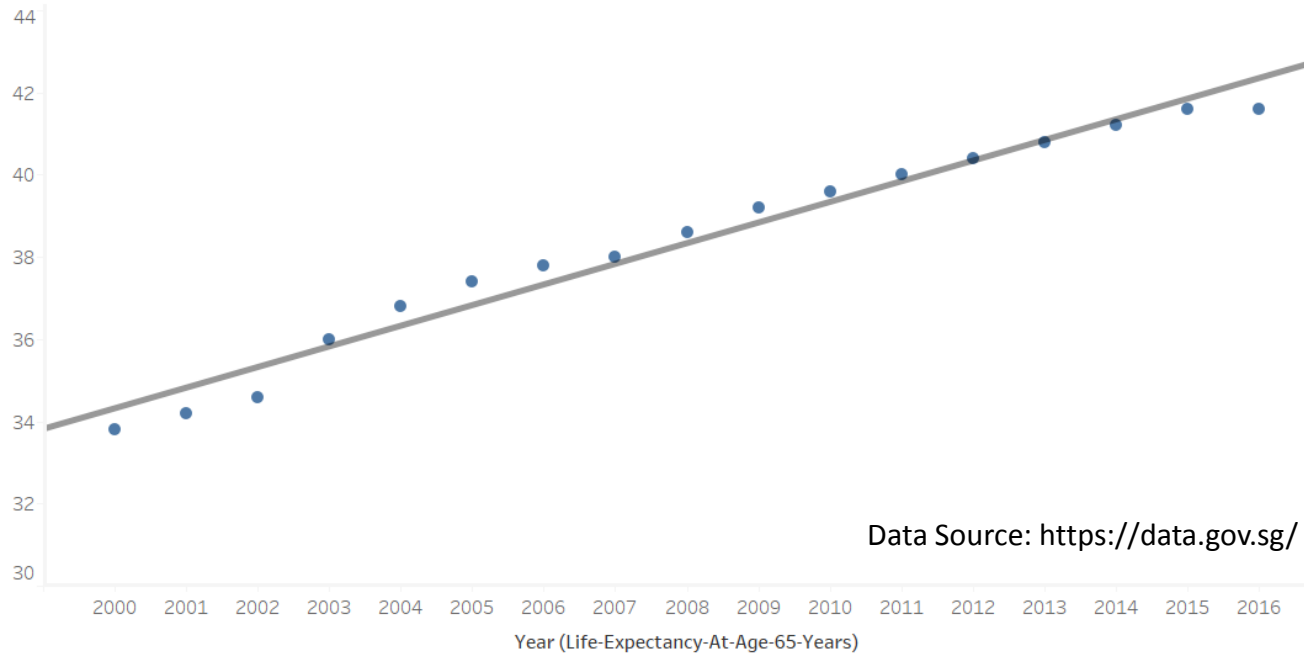
# Ageing Population

Old Age Support Ratio



Data Source: <https://www.singstat.gov.sg/>

Life Expectancy Increases

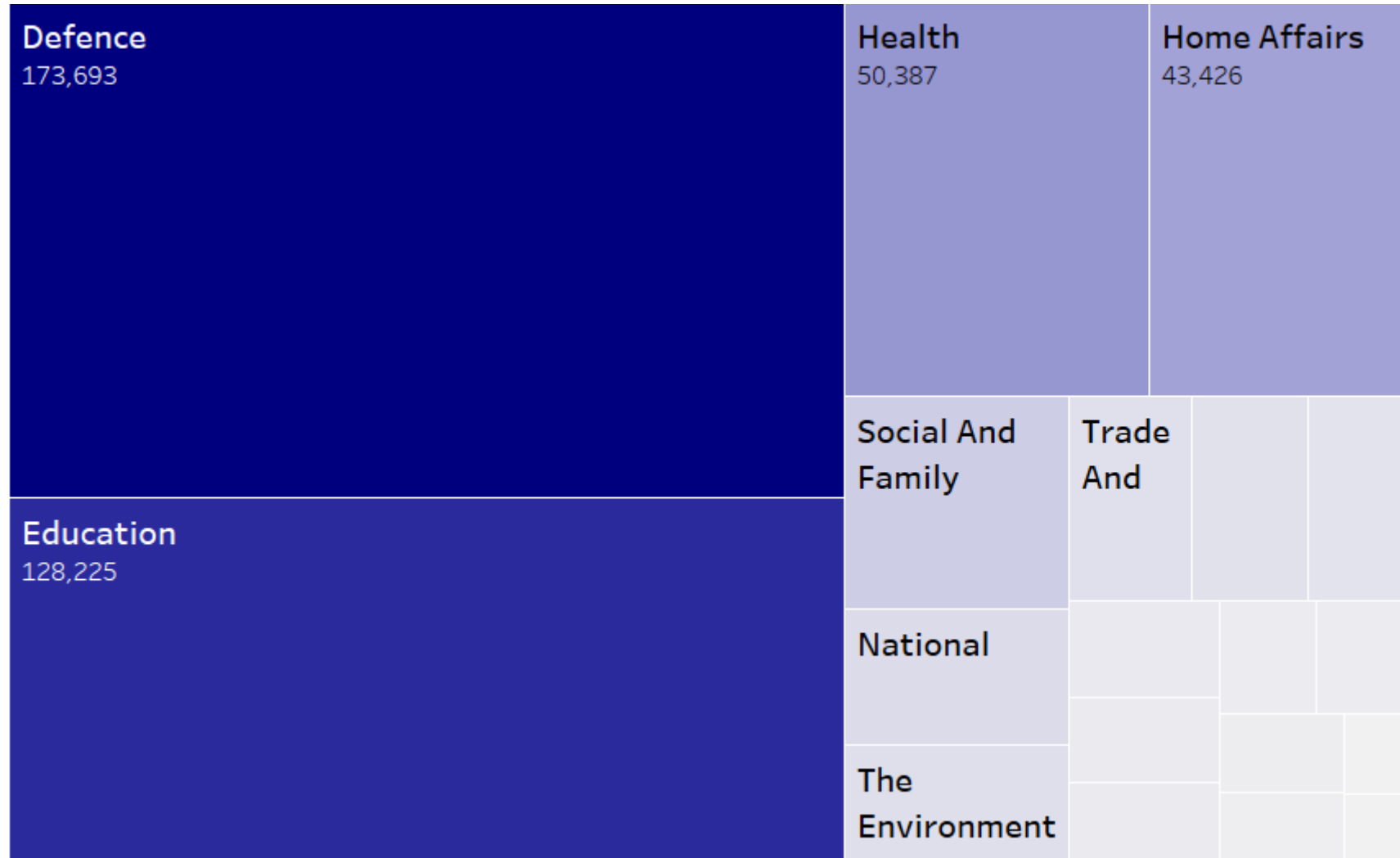


Data Source: <https://data.gov.sg/>

## Implication of Ageing Population

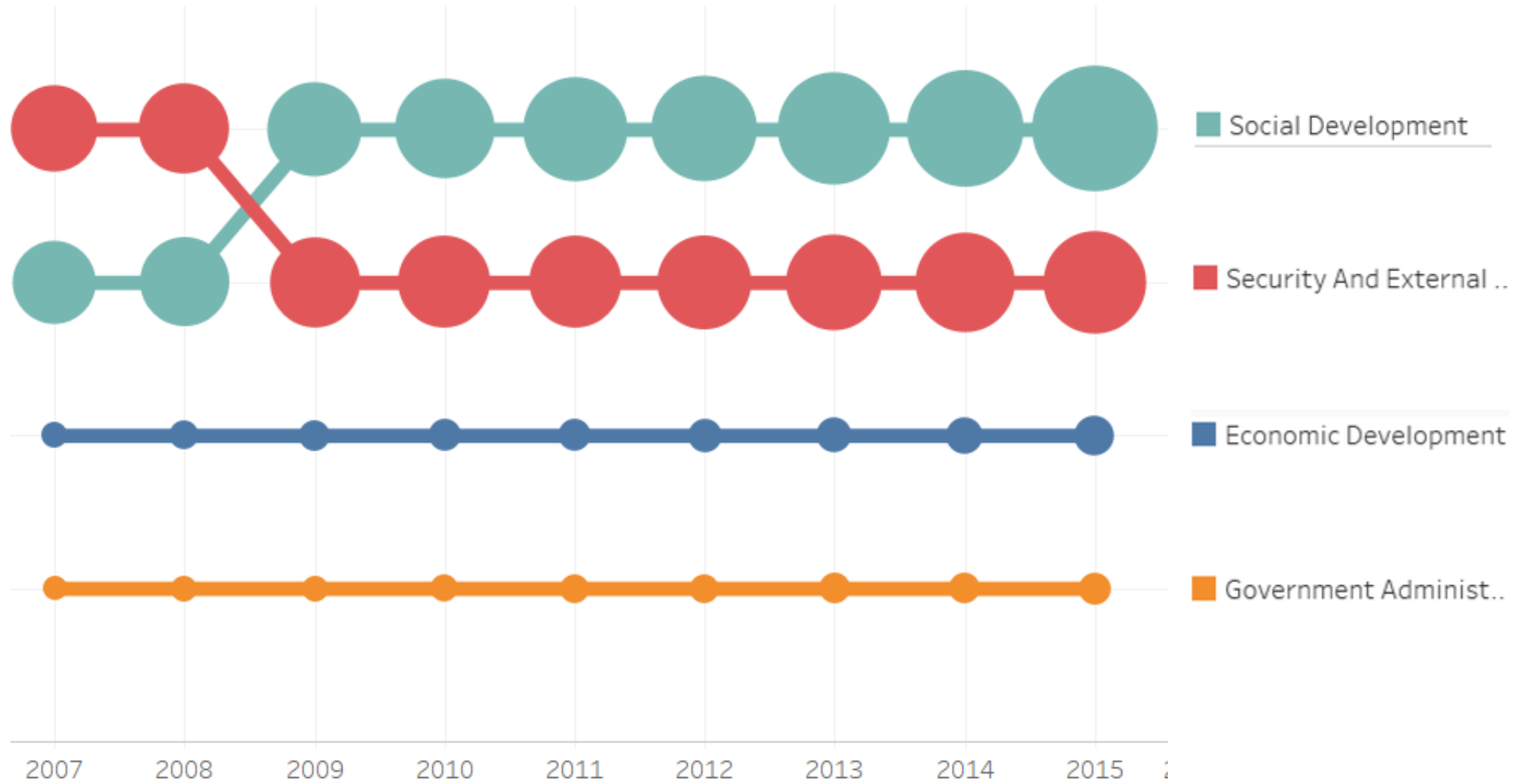
- Increase health care costs
- Greater burden on working adults

# Healthcare the 3<sup>rd</sup> Large Spending



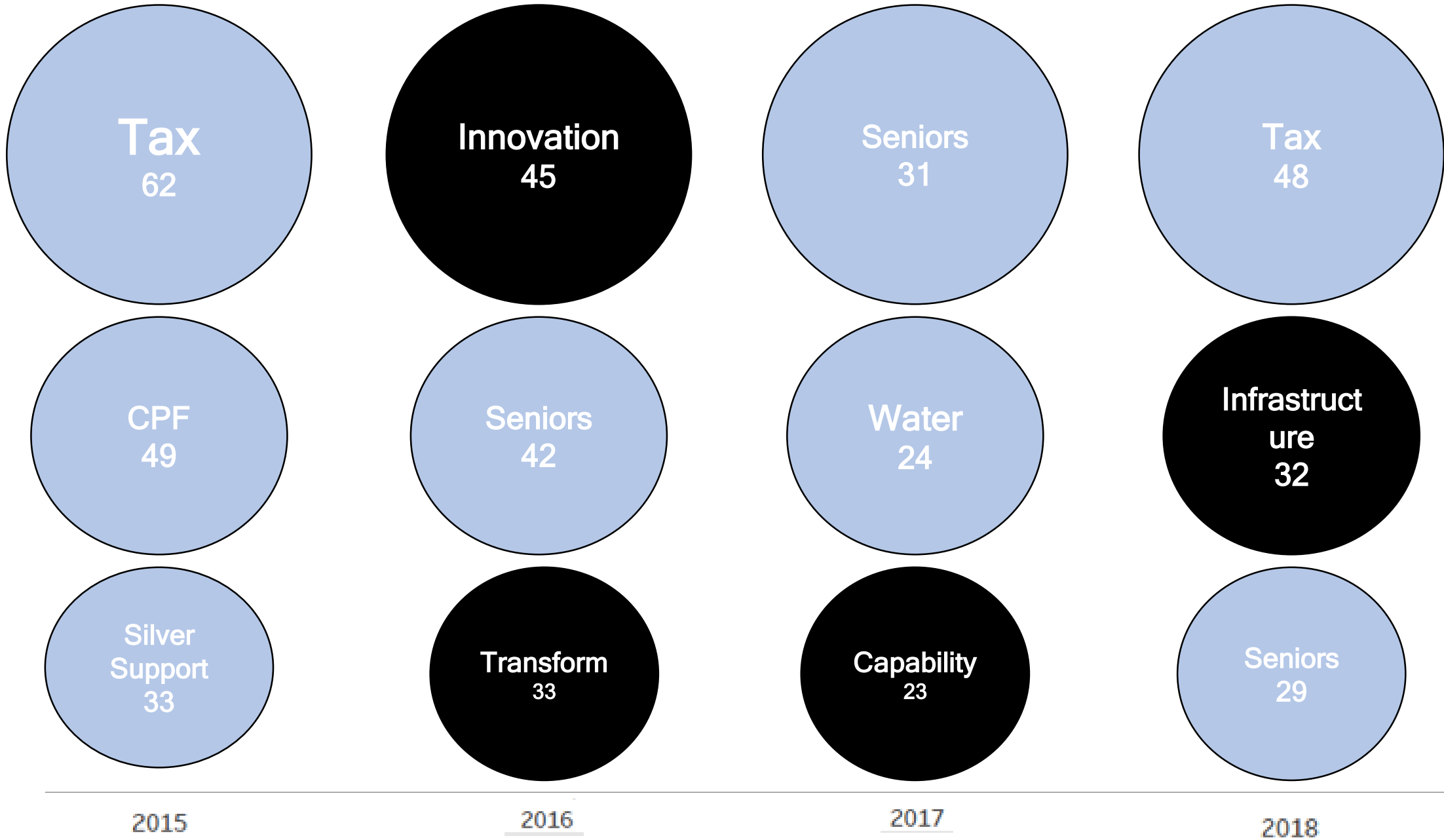
Data Source: <https://www.singstat.gov.sg/>

# Social Development Exceeds Security Spending



Data Source: <https://www.singstat.gov.sg/>

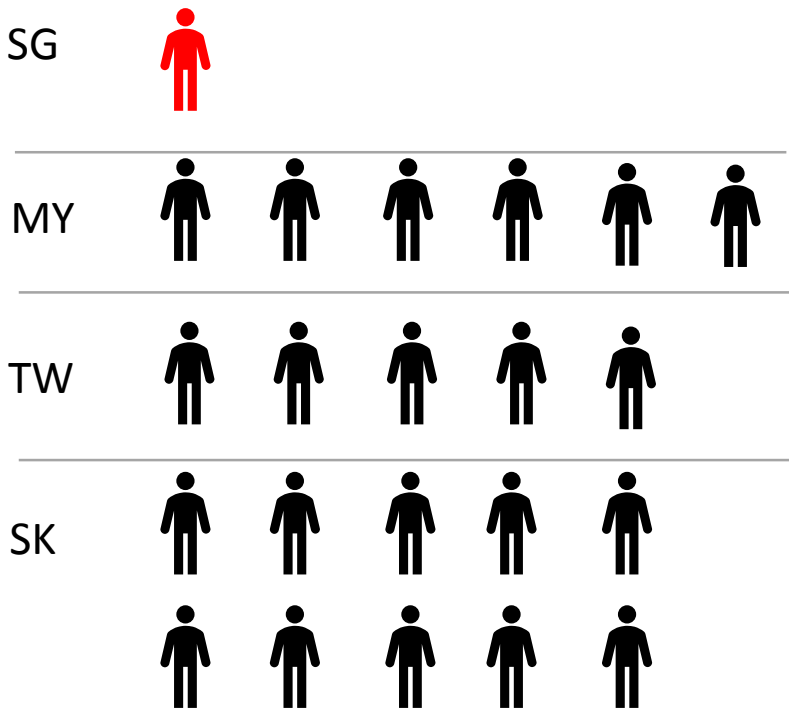
# Capabilities





# Capabilities

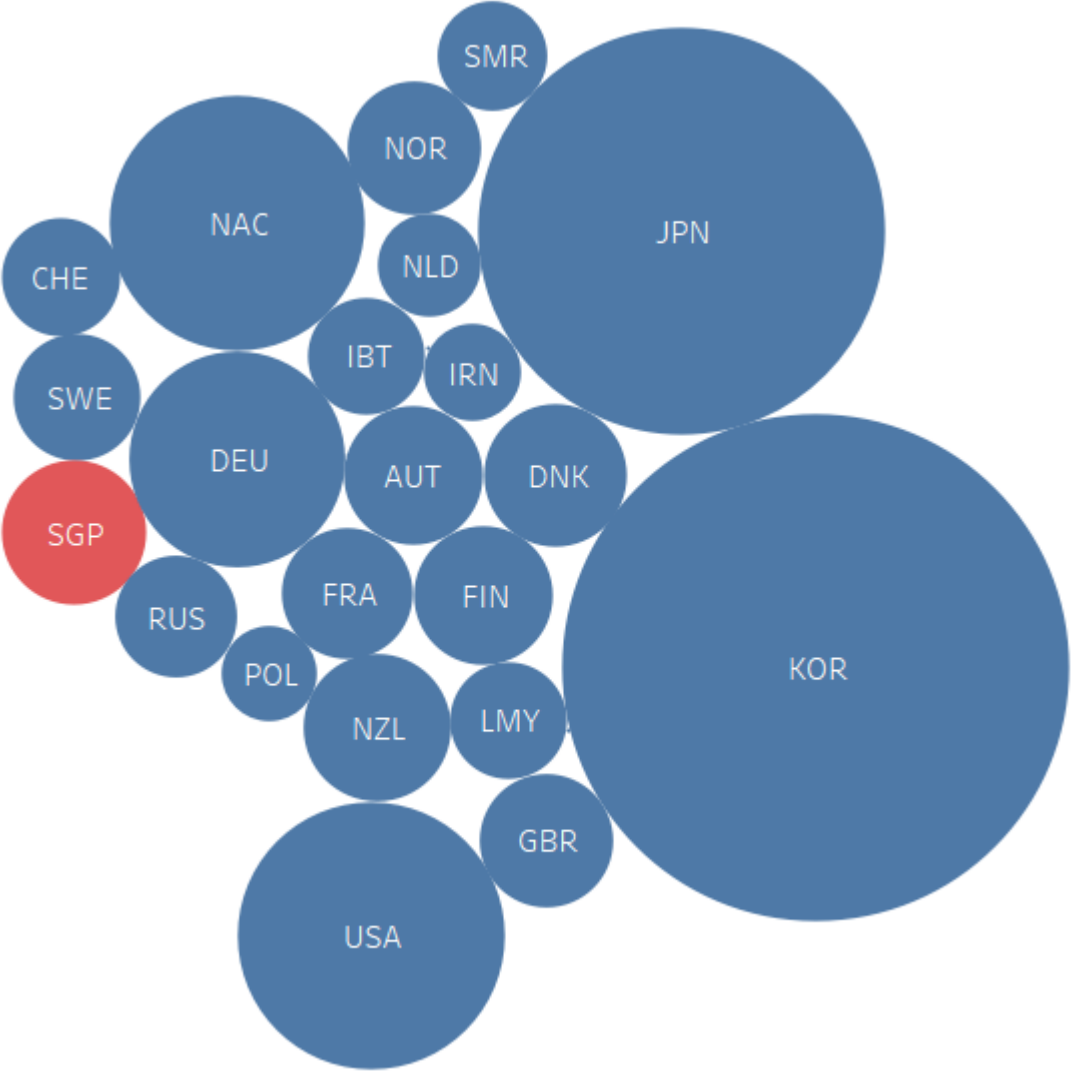
## Population Comparison



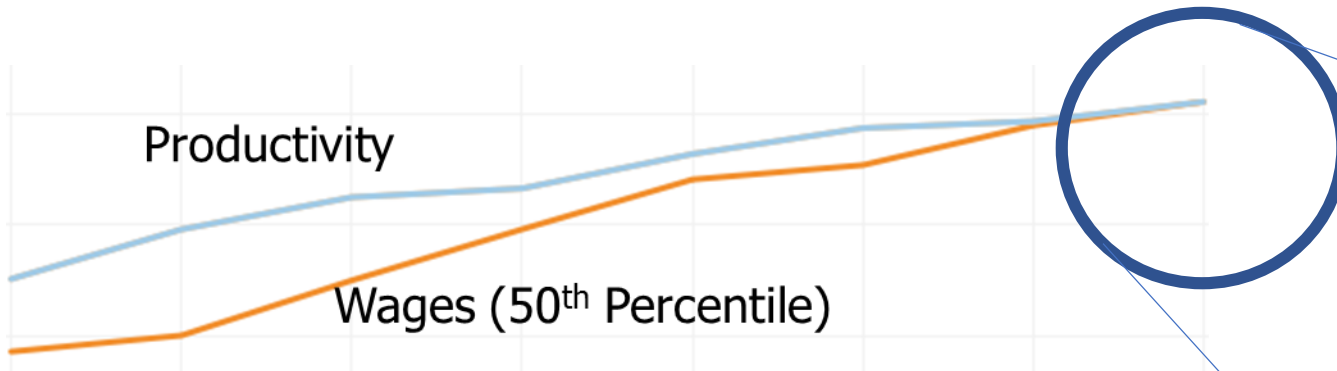
Low  
population  
Count

Great reliance on human resource

## Innovation in Singapore Patents Per Head (Population) 2016



# Capabilities

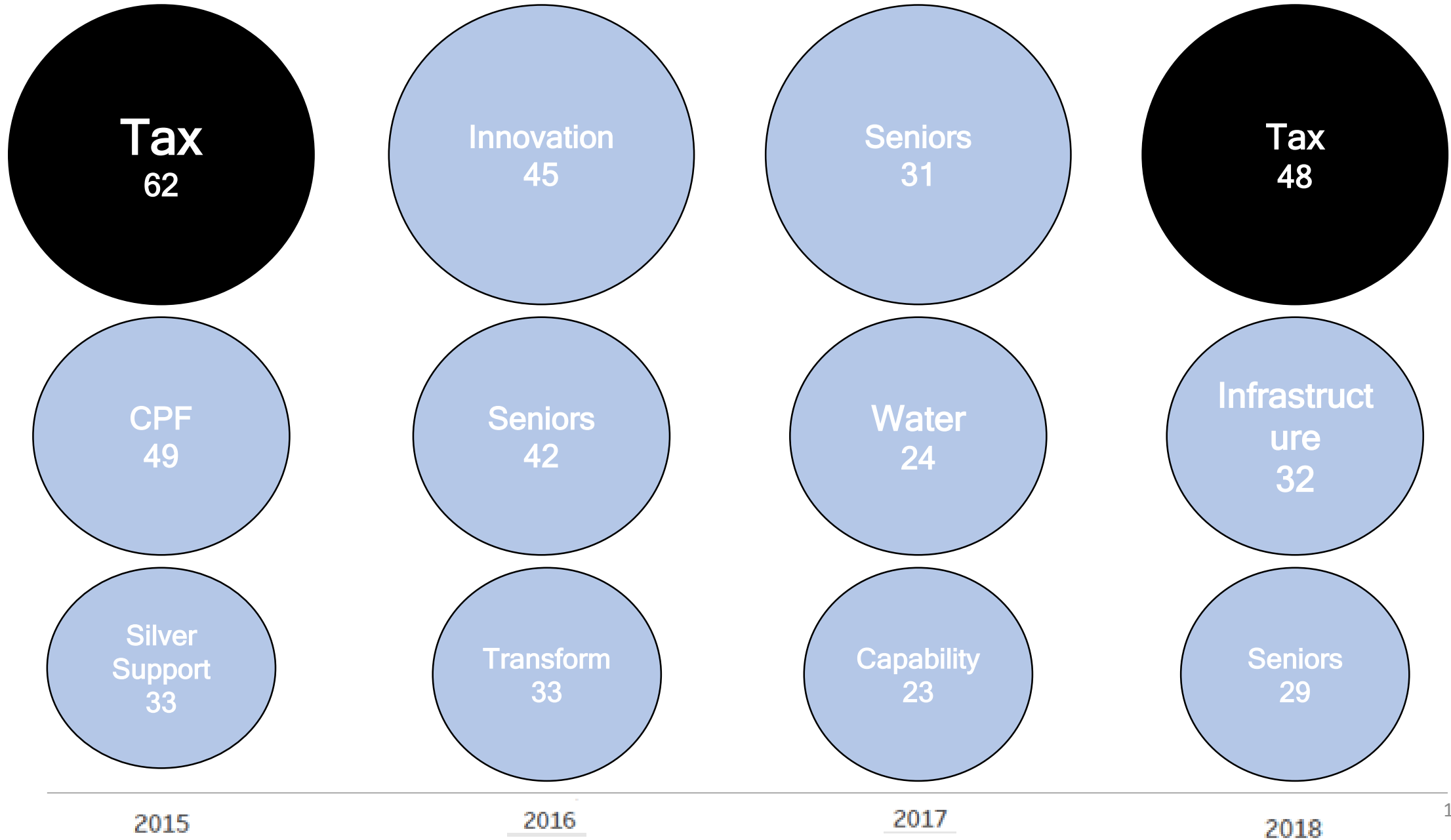


Data Source: <https://www.singstat.gov.sg/>

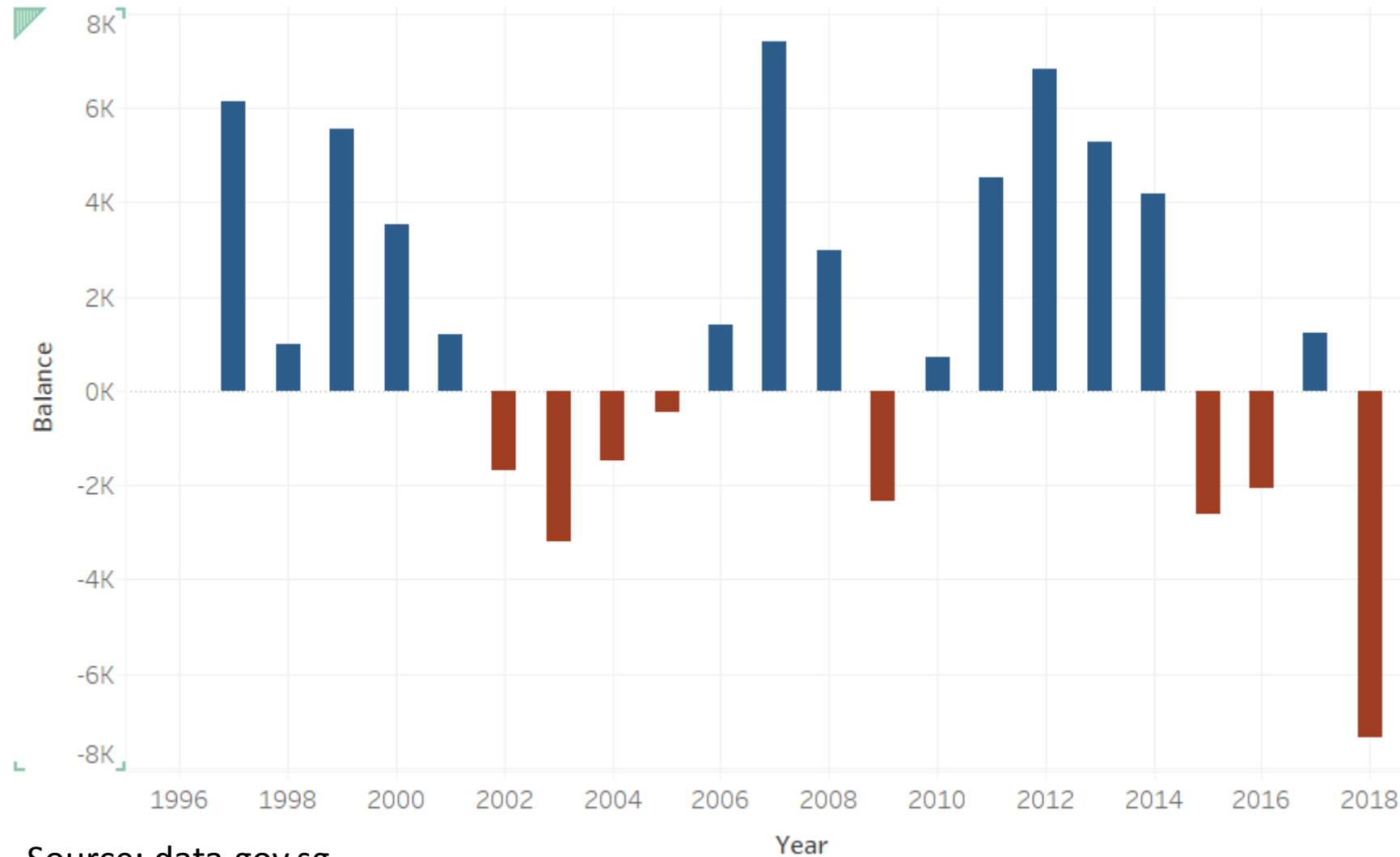
2009 2010 2011 2012 2013 2014 2015 2016

**Productivity lag behind wages in recent years.**

# Taxation



# Government Spending



Source: data.gov.sg

# Taxation: Why is it a concern?

## GST rate (2016)

**7%**

Singapore

**6%**

Malaysia

**10%**

Korea

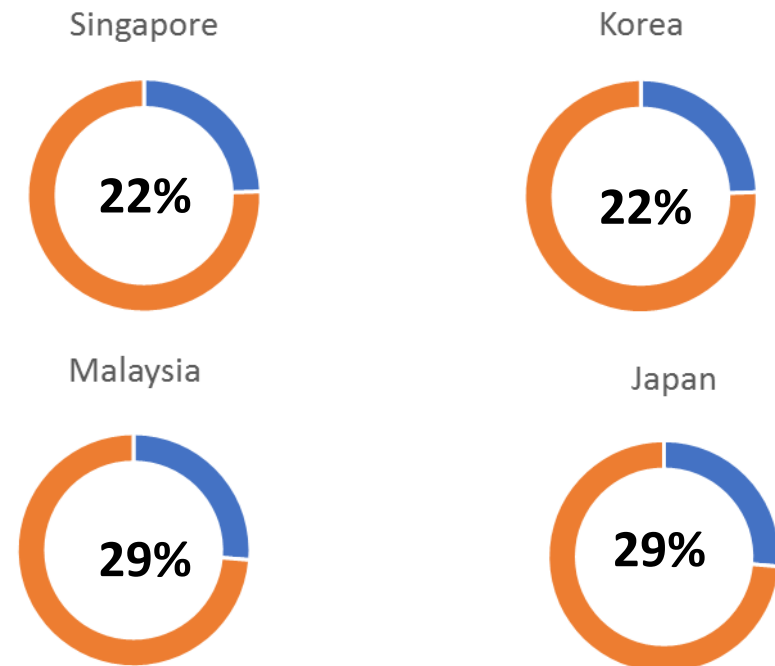
**8%**

Japan

## % VAT of Revenue

Rank (/265)	Country Name	% VAT of Revenue
1	Macao SAR, China	83%
2	Mauritius	56%
3	Albania	56%
4	Lao PDR	55%
⋮		
116	Singapore	23%
117	Germany	22%

Data Source: [datacatalog.worldbank.org](http://datacatalog.worldbank.org) (2017)



# Cost of Living

Indirect Tax are regressive in nature

Cost of living and job security top concerns of Singaporeans: Reach's pre-Budget survey



Office workers at Singapore's Central Business District. An annual government survey has revealed that cost of living and job security are among the top concerns of Singaporeans ahead of Budget 2017. PHOTO: ST FILE



## BRANDED CONTENT



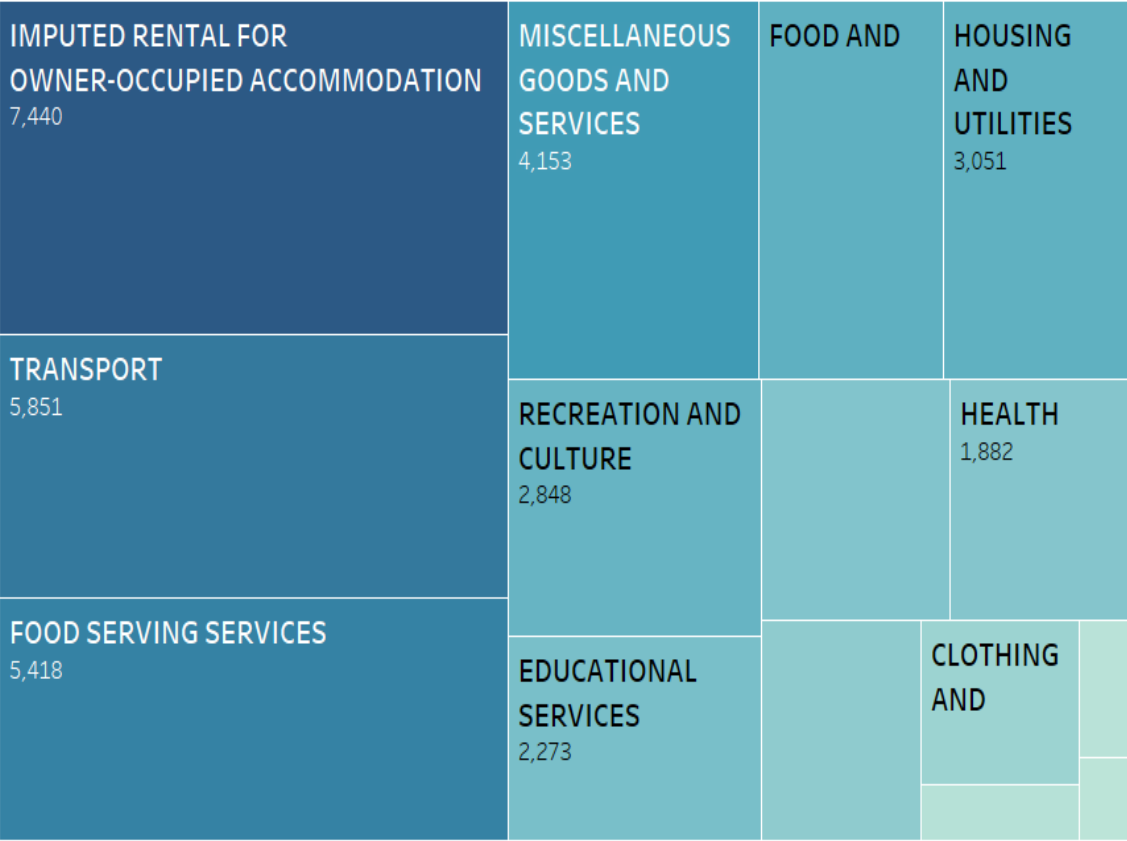
Cost of Living Index

Rank	Country	Cost of Living Index
1	Switzerland	119.98
2	Iceland	112.64
3	Norway	104.09
4	Luxembourg	86.44
5	Denmark	82.65
6	Singapore	80.40

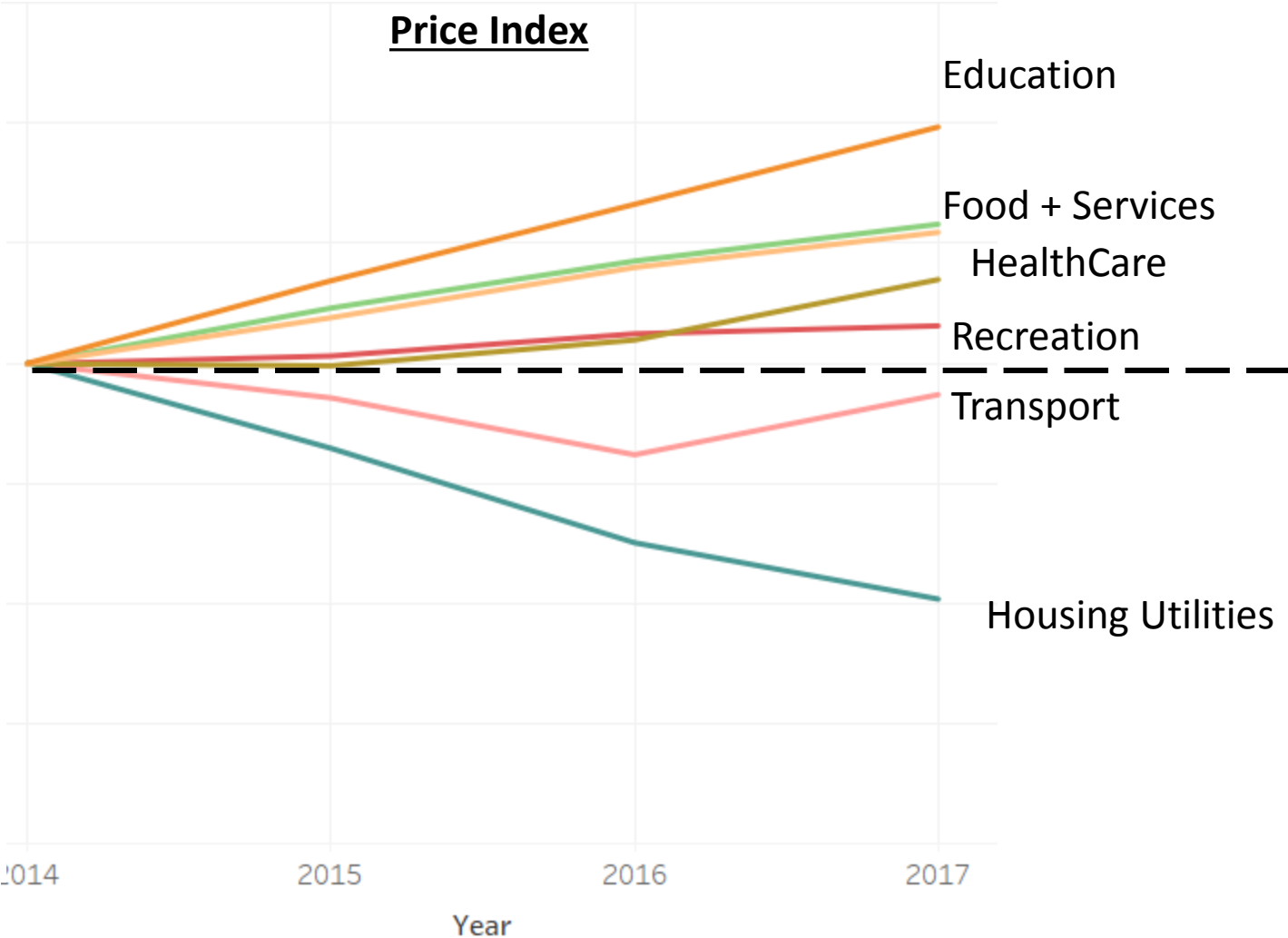
Source: [https://www.numbeo.com/cost-of-living/rankings\\_by\\_country.jsp](https://www.numbeo.com/cost-of-living/rankings_by_country.jsp)



# Cost of Living



Source: data.gov.sg



Source: data.gov.sg

# **Summary**

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**Ageing Population**

**Productivity**

**Cost of living**

# Thank you

Presenter: Ng Wei Xuan



# References

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## Tools

- Tableau Public
- Python

## Data Sources

- <https://www.singstat.gov.sg>
- datacatalog.worldbank.org
- <https://data.gov.sg/>
- <https://www.singaporebudget.gov.sg/>

## Charts and images

- <https://www.straitstimes.com/>
- <https://pixabay.com/>

# Appendix

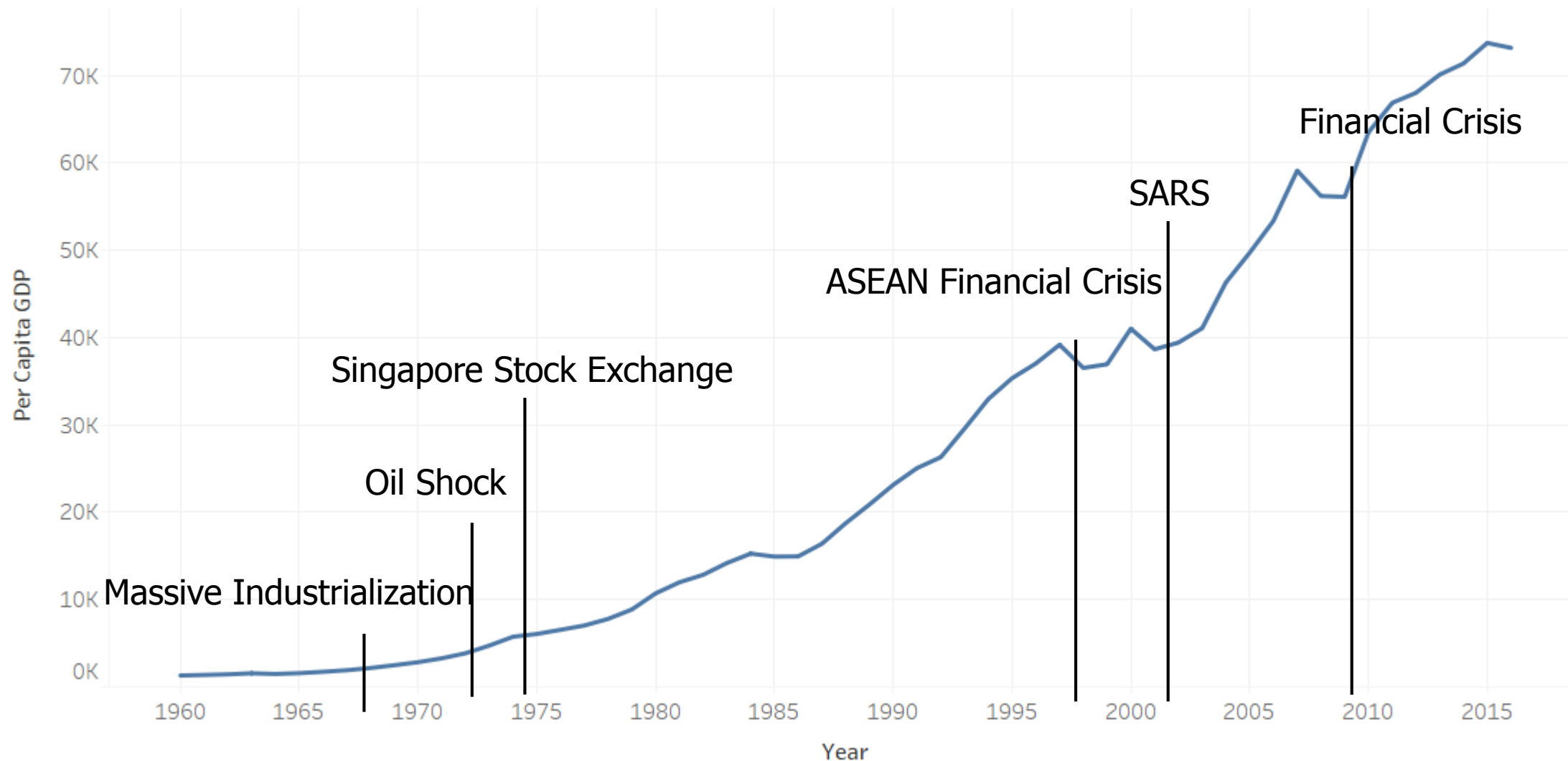
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# Introduction: Singapore Economy

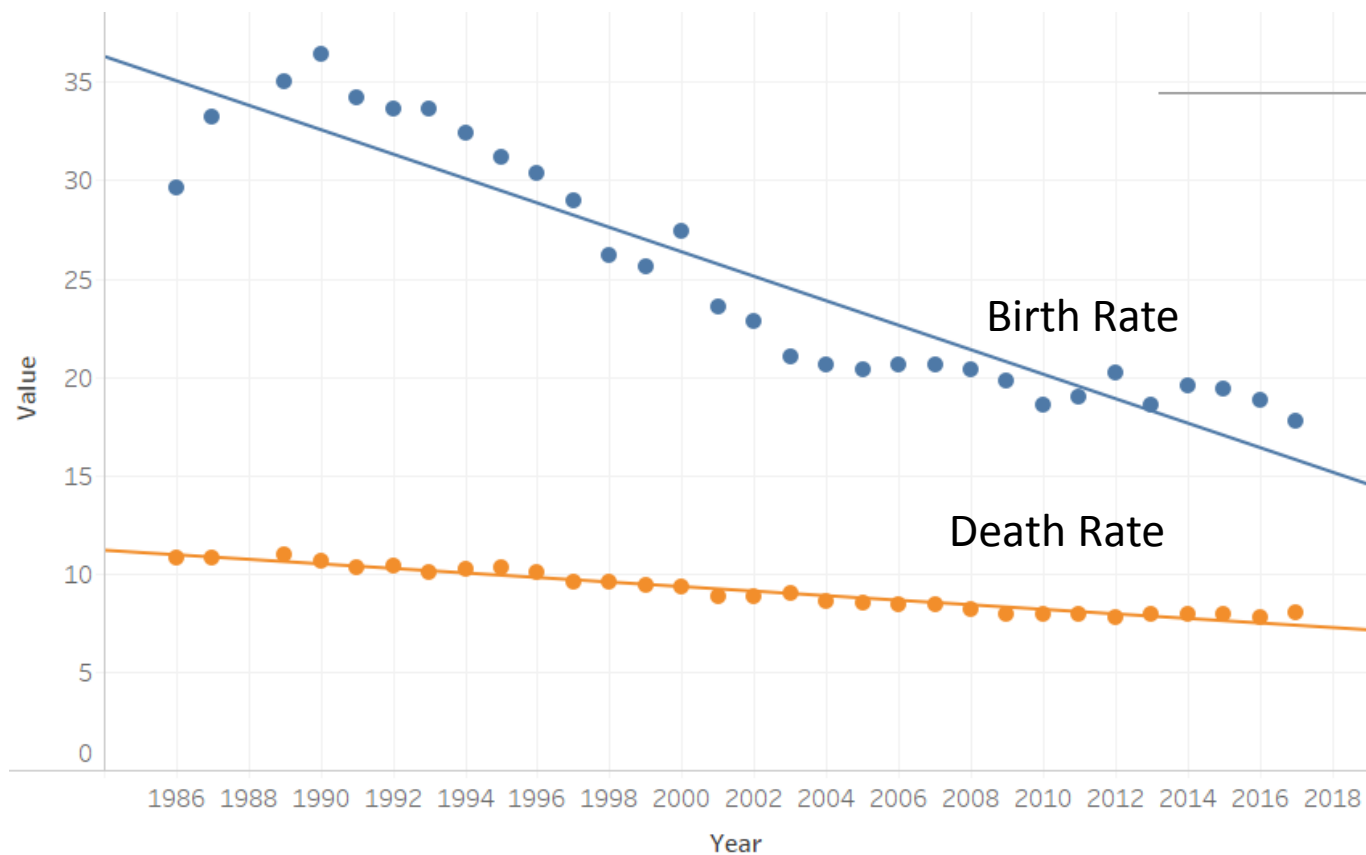
Other Services Industries	12%
Ownership of Dwellings	3.90%
Manufacturing	19.20%
Construction	4.30%
Utilities	1.30%
Wholesale & Retail Trade	17.60%
Transportation & Storage	7.20%
Accommodation & Food Services	2.10%
Information & Communications	4.20%
Finance & Insurance	13.30%
Business Services	14.80%



# Introduction: Singapore Economy



# Ageing Population



Birth rate is falling  
faster than death rate

Data Source: <https://data.gov.sg/>

# Ageing Population

## Old Age Support Ratio

“computed as the ratio of the working-age population (e.g. aged 20-64 years) per person aged 65 years and over in Singapore.”

Source: <https://www.singstat.gov.sg>

## Vs Dependency Ratio

The dependency ratio is a measure showing the ratio of the number of dependents aged zero to 14 and over the age of 65 to the total population aged 15 to 64.

Source: [www.investopedia.com](http://www.investopedia.com)

## Dependency Ratio

1999	41.2
2000	41.1
2001	41
2002	40.8
2003	40.2
2004	39.5
2005	39.1
2006	38.5
2007	37.9
2008	37.2
2009	36.5
2010	35.7
2011	35.3
2012	35.7
2013	36.1
2014	36.7
2015	37.4
2016	38
2017	38.9

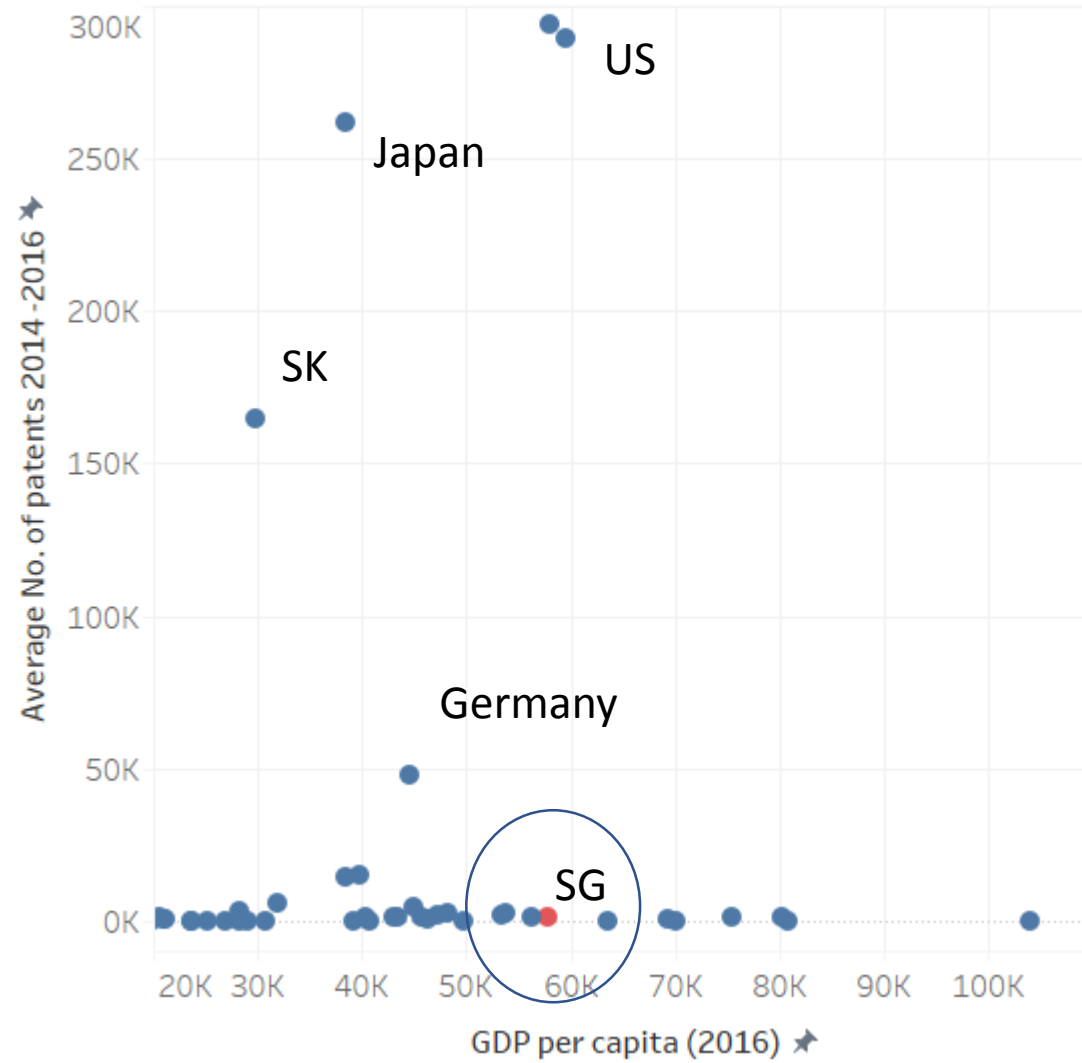
Source: <https://www.singstat.gov.sg>

# Life Expectancy

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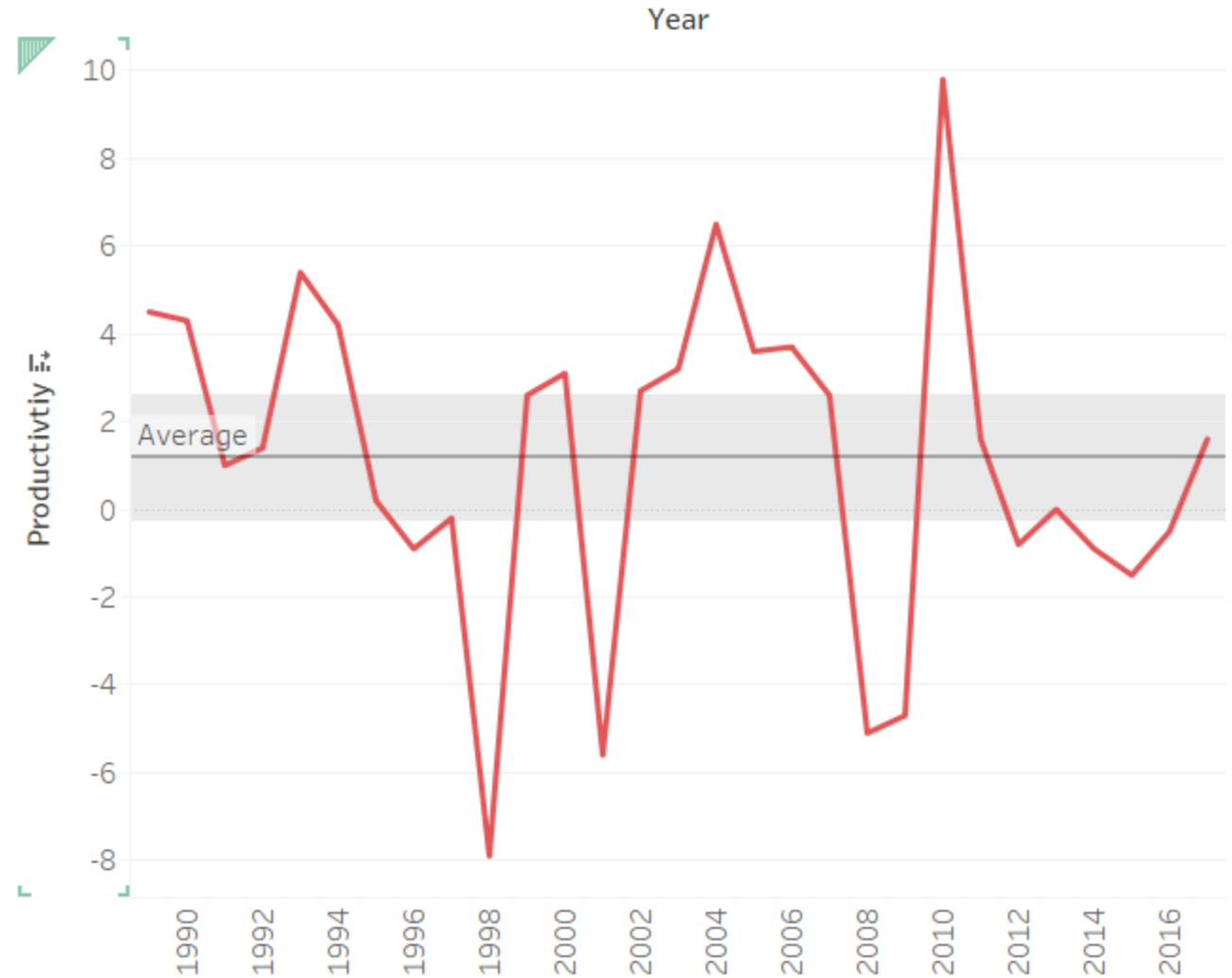
1970	Life Expectancy At Age 65 Years	8.4
1980	Life Expectancy At Age 65 Years	14
1990	Life Expectancy At Age 65 Years	15.7
1995	Life Expectancy At Age 65 Years	16
2000	Life Expectancy At Age 65 Years	16.9
2001	Life Expectancy At Age 65 Years	17.1
2002	Life Expectancy At Age 65 Years	17.3
2003	Life Expectancy At Age 65 Years	18
2004	Life Expectancy At Age 65 Years	18.4
2005	Life Expectancy At Age 65 Years	18.7
2006	Life Expectancy At Age 65 Years	18.9
2007	Life Expectancy At Age 65 Years	19
2008	Life Expectancy At Age 65 Years	19.3
2009	Life Expectancy At Age 65 Years	19.6
2010	Life Expectancy At Age 65 Years	19.8
2011	Life Expectancy At Age 65 Years	20
2012	Life Expectancy At Age 65 Years	20.2
2013	Life Expectancy At Age 65 Years	20.4
2014	Life Expectancy At Age 65 Years	20.6
2015	Life Expectancy At Age 65 Years	20.8
2016	Life Expectancy At Age 65 Years	20.8

# Innovation



# Capabilities

**Labor productivity  
show no signs of  
improvement**

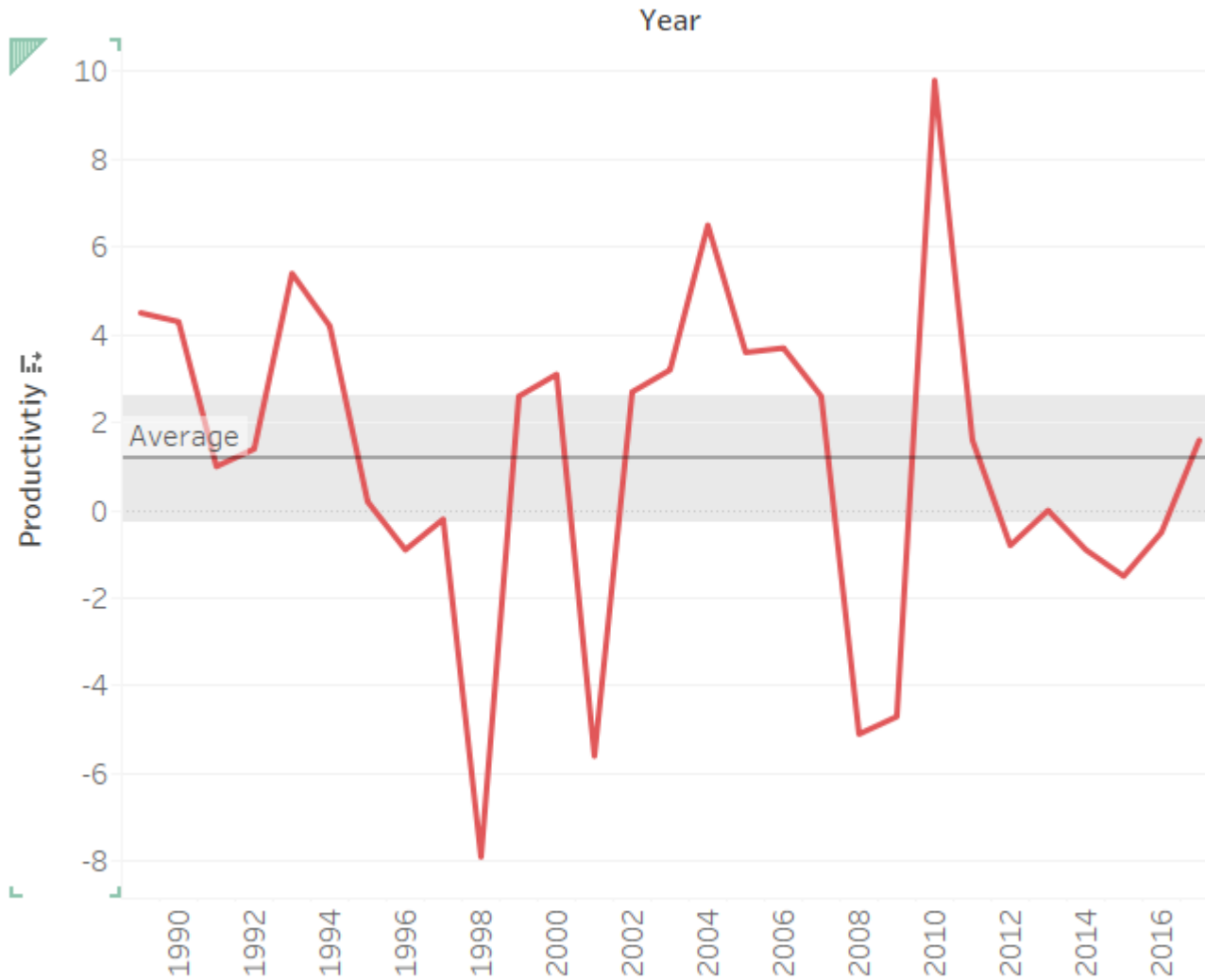


Data Source: <https://www.singstat.gov.sg/>



# Capabilities

## Productivity Calculation



Multifactor Productivity =  
Capital Input  
+ Labor Input  
- Percentage Change in Real GDP

Data Source: <https://www.singstat.gov.sg/>

# Capabilities

Percentage Change In Real GDP	2005	7.2
Percentage Change In Real GDP	2006	8.5
Percentage Change In Real GDP	2007	8.7
Percentage Change In Real GDP	2008	1.8
Percentage Change In Real GDP	2009	-0.6
Percentage Change In Real GDP	2010	14.2
Percentage Change In Real GDP	2011	6.2
Percentage Change In Real GDP	2012	4
Percentage Change In Real GDP	2013	5
Percentage Change In Real GDP	2014	3.8
Percentage Change In Real GDP	2015	2.2
Percentage Change In Real GDP	2016	2.4
Percentage Change In Real GDP	2017	3.6

Capital Input	2005	1.8
Capital Input	2006	2.1
Capital Input	2007	2.6
Capital Input	2008	2.9
Capital Input	2009	2.9
Capital Input	2010	3
Capital Input	2011	3
Capital Input	2012	3.2
Capital Input	2013	3.2
Capital Input	2014	3.1
Capital Input	2015	2.8
Capital Input	2016	2.4
Capital Input	2017	2.1

Labour Input	2005	1.8
Labour Input	2006	2.7
Labour Input	2007	3.5
Labour Input	2008	4
Labour Input	2009	1.2
Labour Input	2010	1.4
Labour Input	2011	1.6
Labour Input	2012	1.7
Labour Input	2013	1.8
Labour Input	2014	1.7
Labour Input	2015	1
Labour Input	2016	0.5
Labour Input	2017	-0.1