

2017 Global Outlook

Singapore's Economic Future In The Midst Of Rising Anti-Globalisation Sentiments

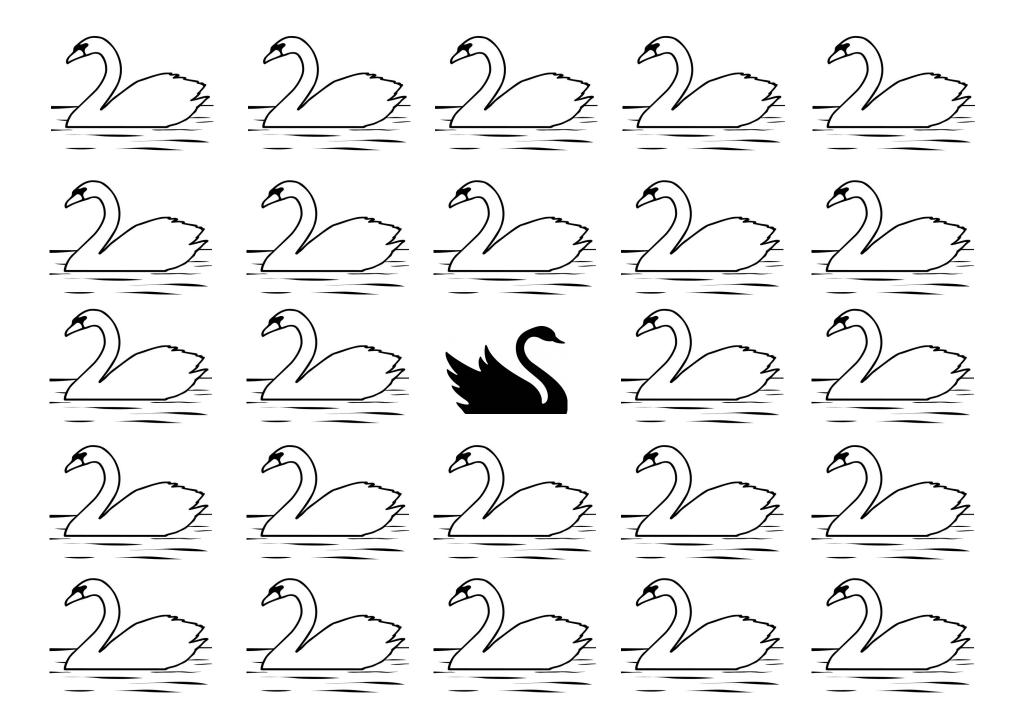
Francis Tan
UOB Global Economics & Markets Research

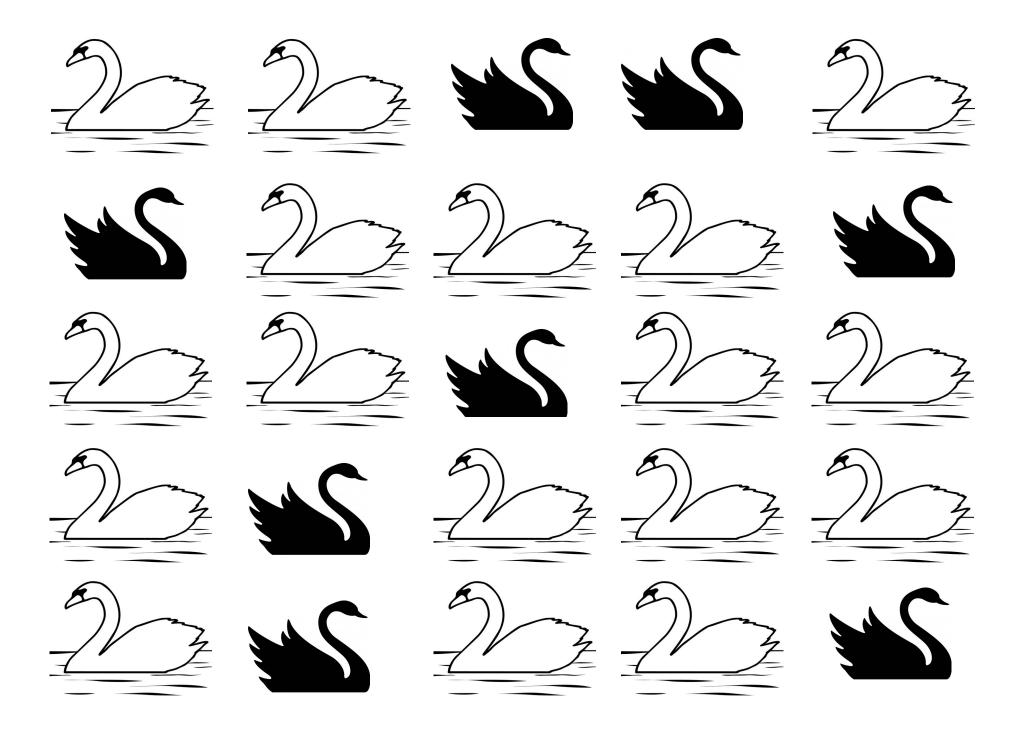
8th March 2017

Disclaimer



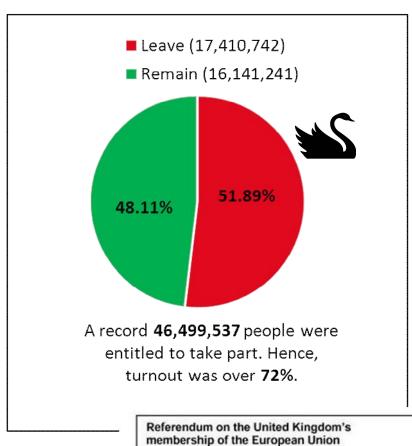
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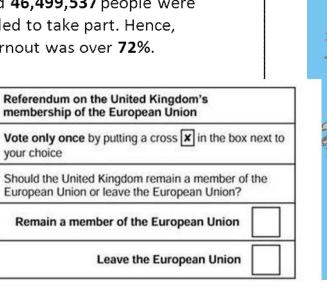


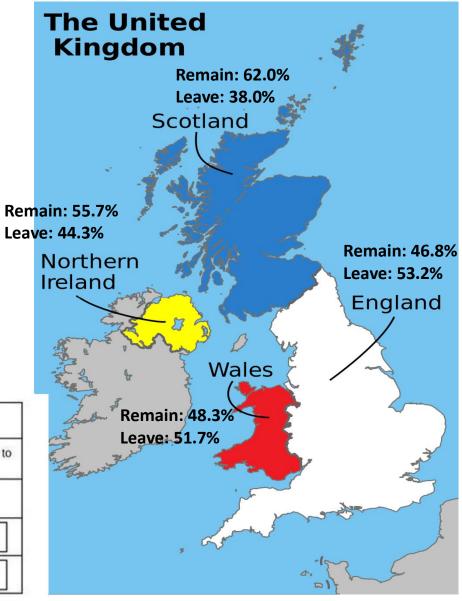


UK Referendum: The Outcome









your choice

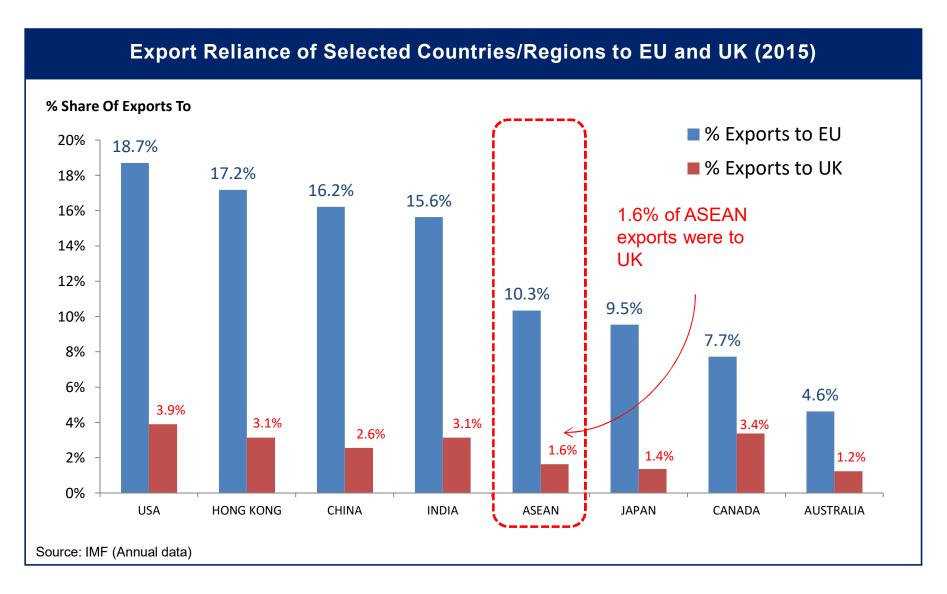
Euro Exposed To Political Risks



2017		
January	19	ECB rate announcement
March	9	ECB rate announcement
	15	Dutch General Election
April	23	French Presidential Election (1st Round)
	27	ECB rate announcement
May	7	French Presidential Election (2 nd Round)
June	8	ECB rate announcement
July	20	ECB rate announcement
September	7	ECB rate announcement
October		Czech Legislative Election
	22*	German Federal Election
	26	ECB rate announcement
December	14	ECB rate announcement

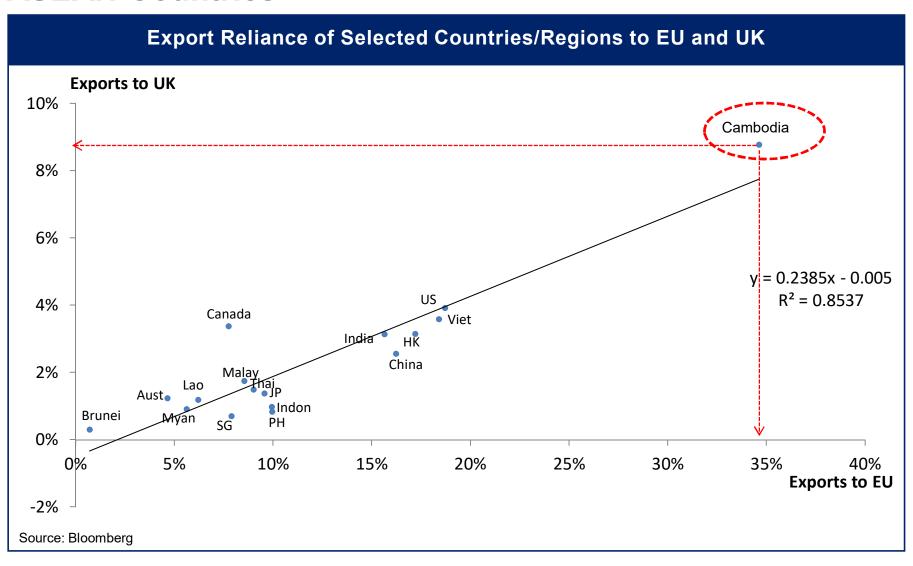
1.6% of ASEAN's Exports Were To The UK; 10.3% to EU







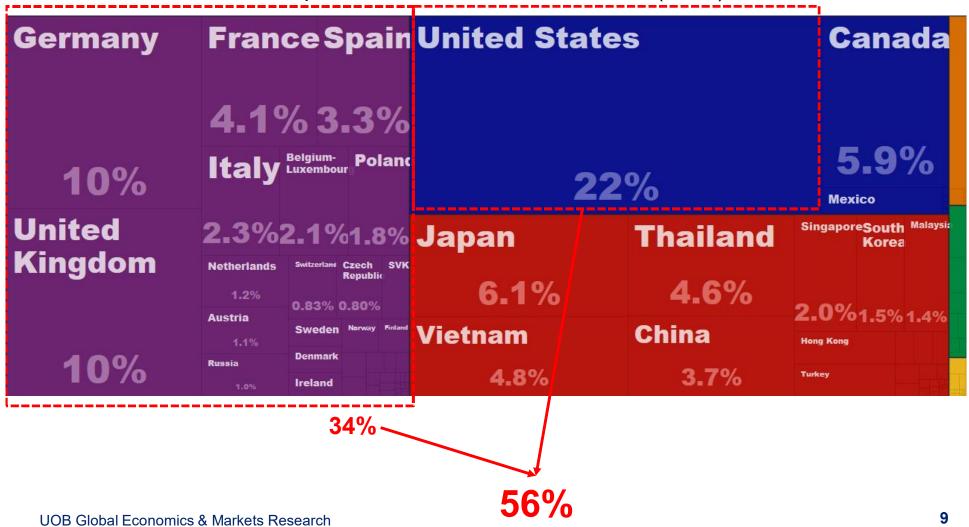
However, The Reliance Is Very Different Across ASEAN Countries



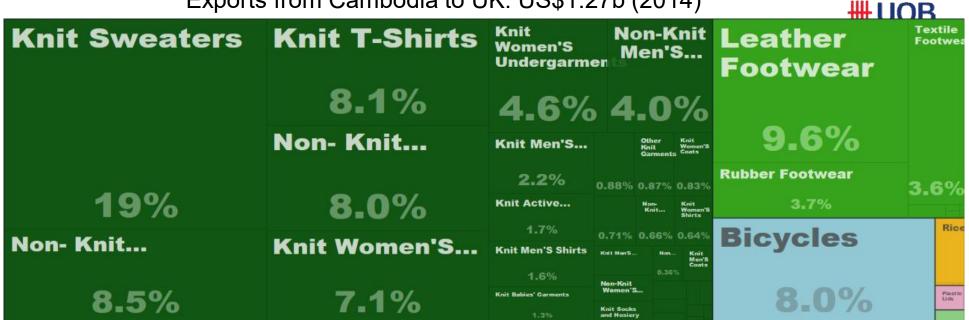
Where Does Cambodia Export To?







Exports from Cambodia to UK: US\$1.27b (2014)



Exports from Cambodia to Germany: US\$1.29b (2014)

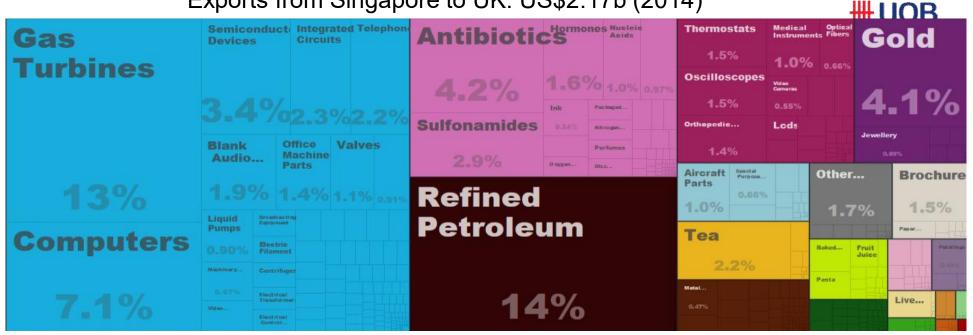




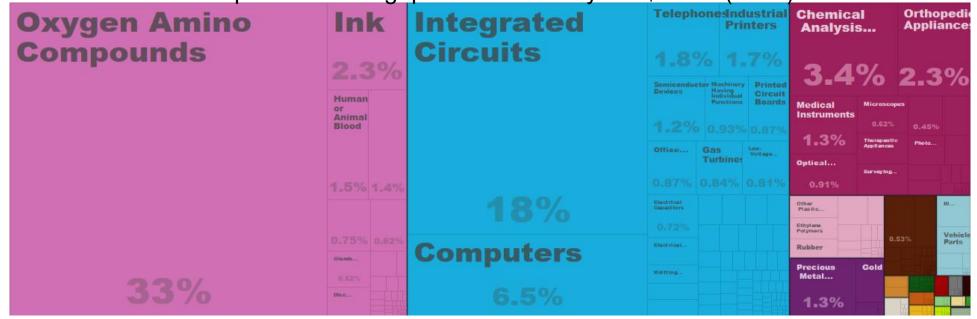
Exports from Cambodia to US: US\$2.82b (2014)



Exports from Singapore to UK: US\$2.17b (2014)



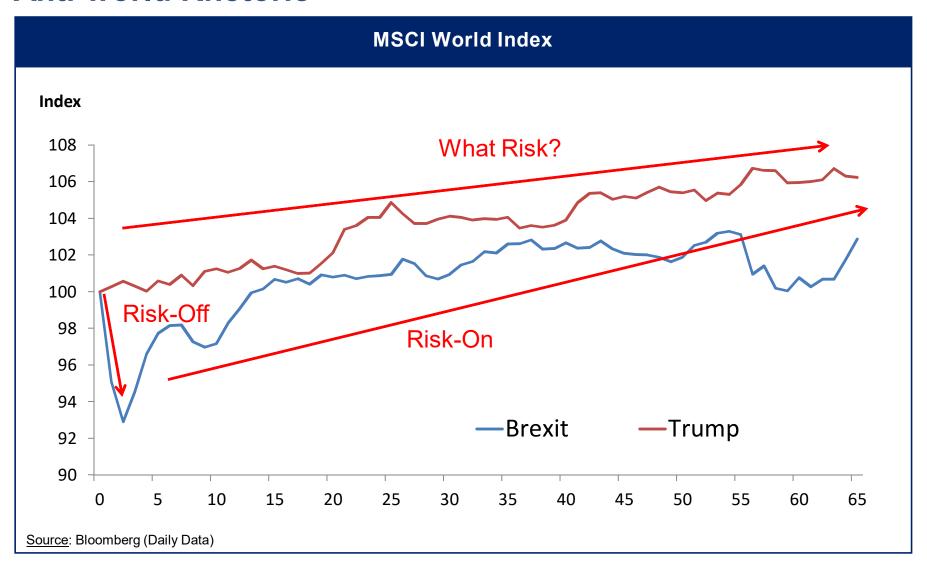
Exports from Singapore to Germany: US\$6.43b (2014)





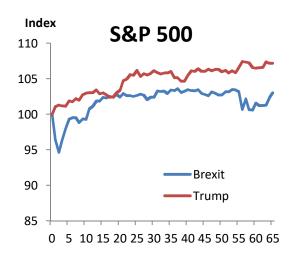


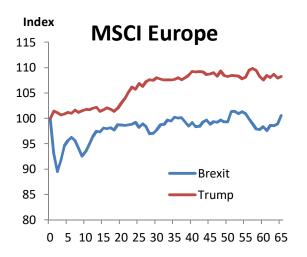
Investors Seem To Shrug Off Trump's Anti-trade, Anti-world Rhetoric

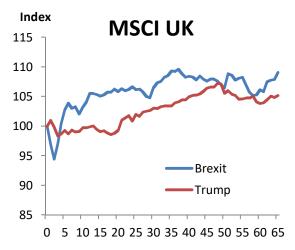


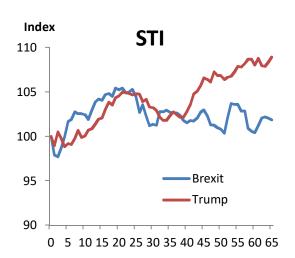
DM Equities Supported After Trump Win

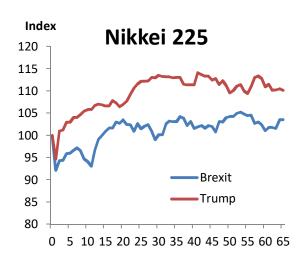


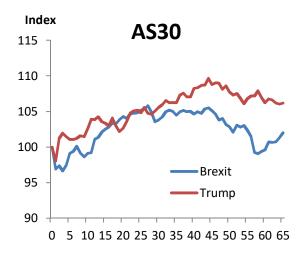








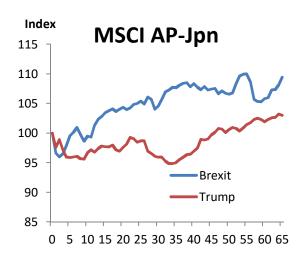


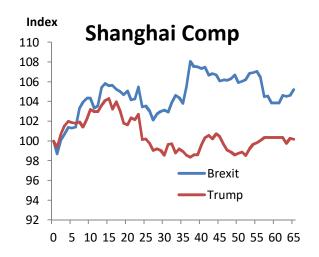


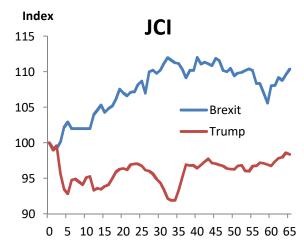
Source: Bloomberg (Daily Data)

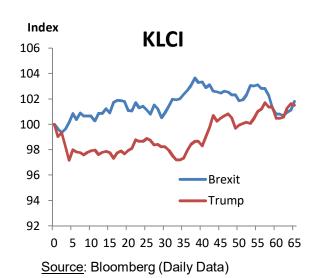
Sell-off of EM Equities Supported After Trump Win

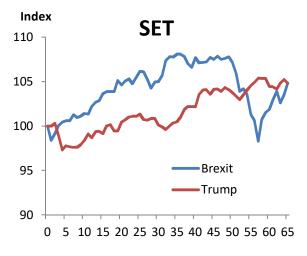


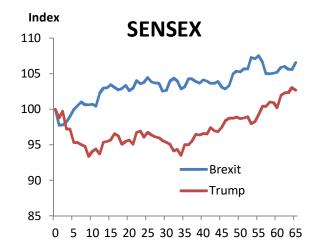






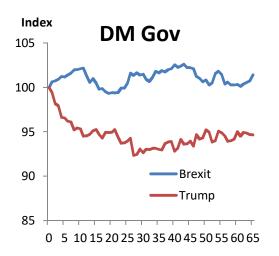


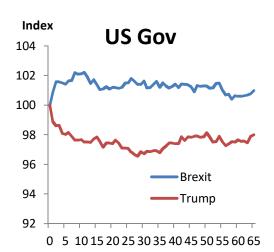


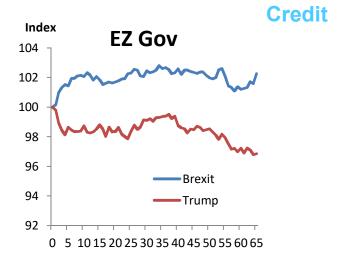


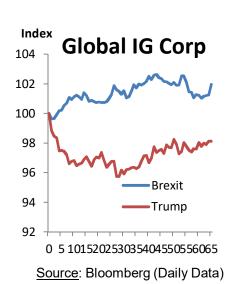
Selling Off Safe Havens

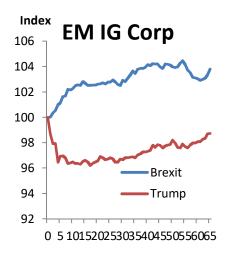


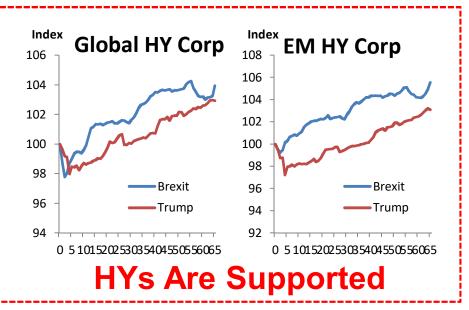






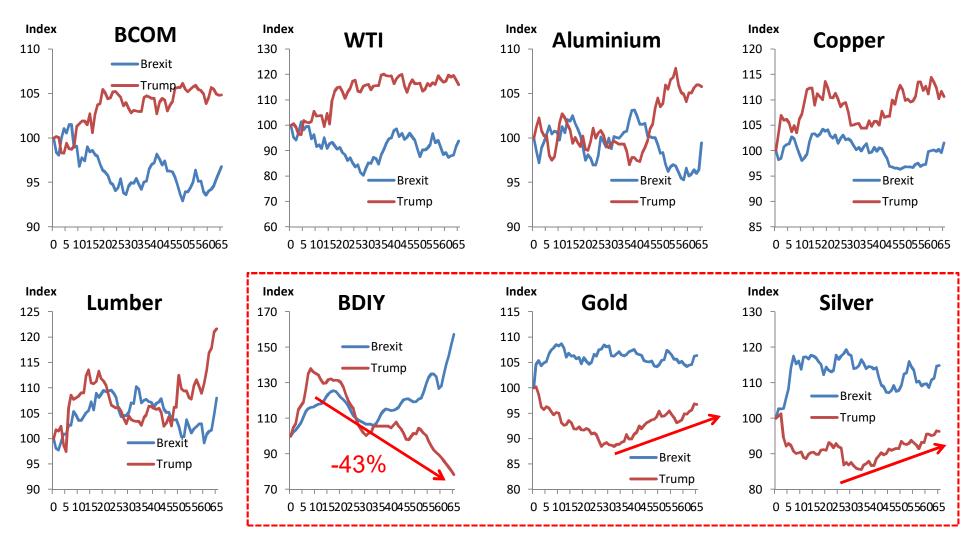






Commodities Prices Run-up Is Not Rational

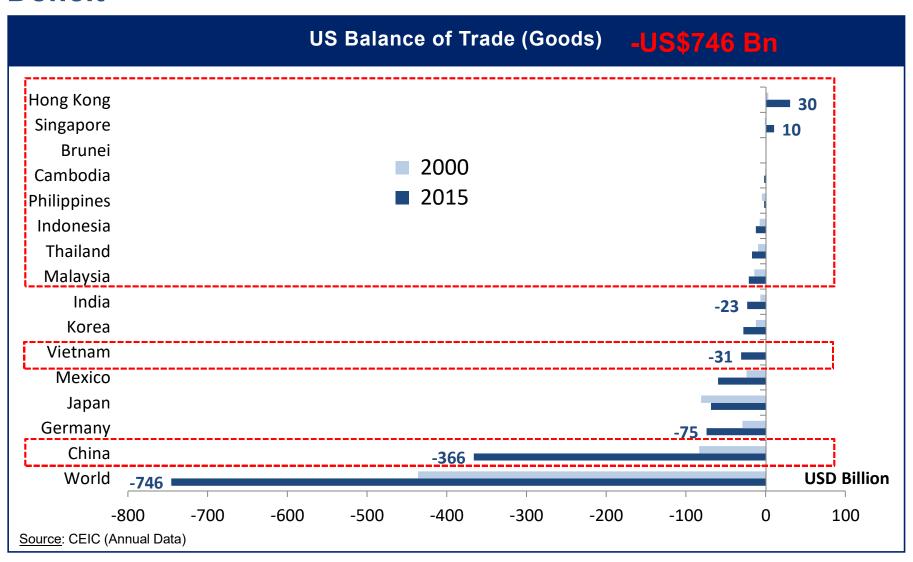




Markets Getting Nervous

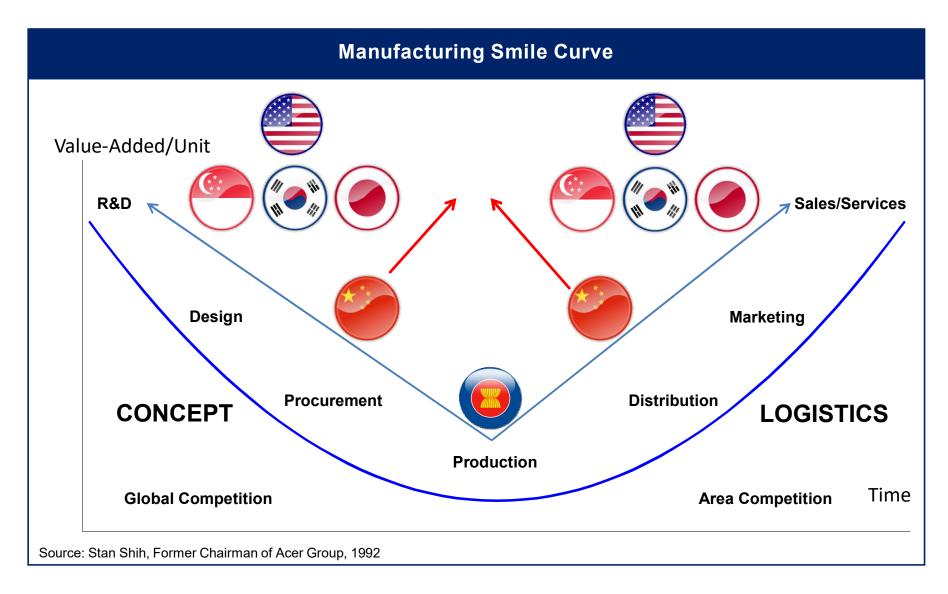


ASEAN Countries Didn't Account Much of US Trade Deficit



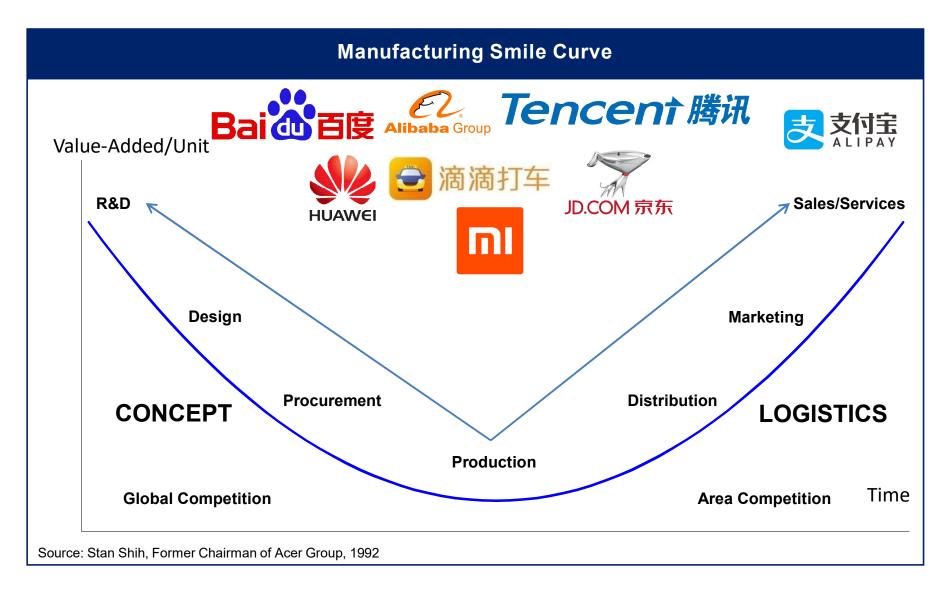
Let's Learn About Manufacturing!





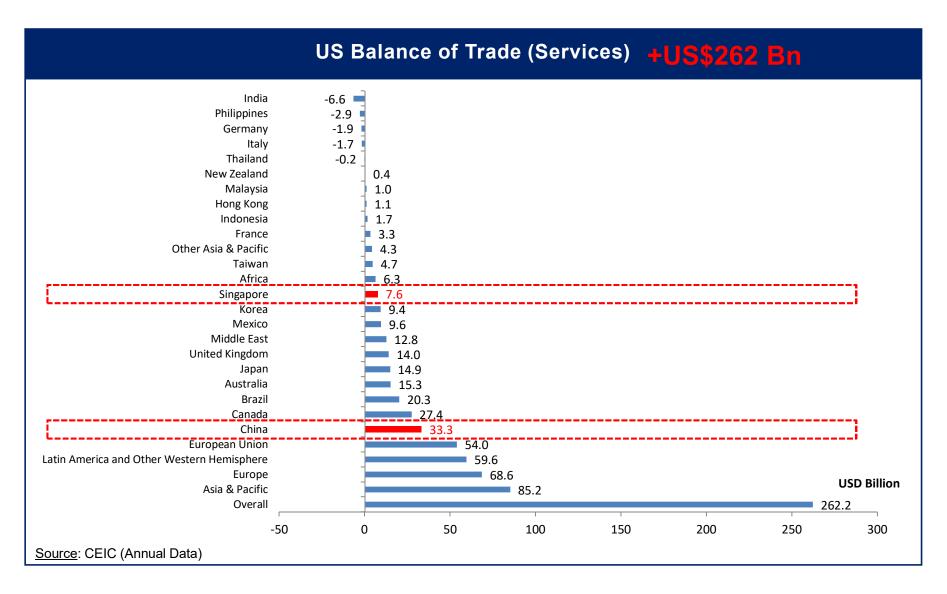
Let's Learn About Manufacturing!





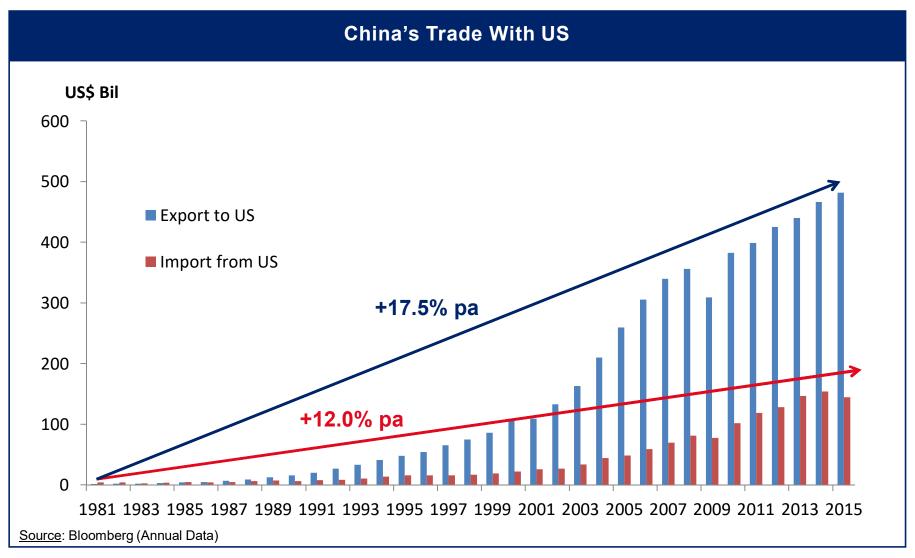


And The US Should NOT Complain Too Much...



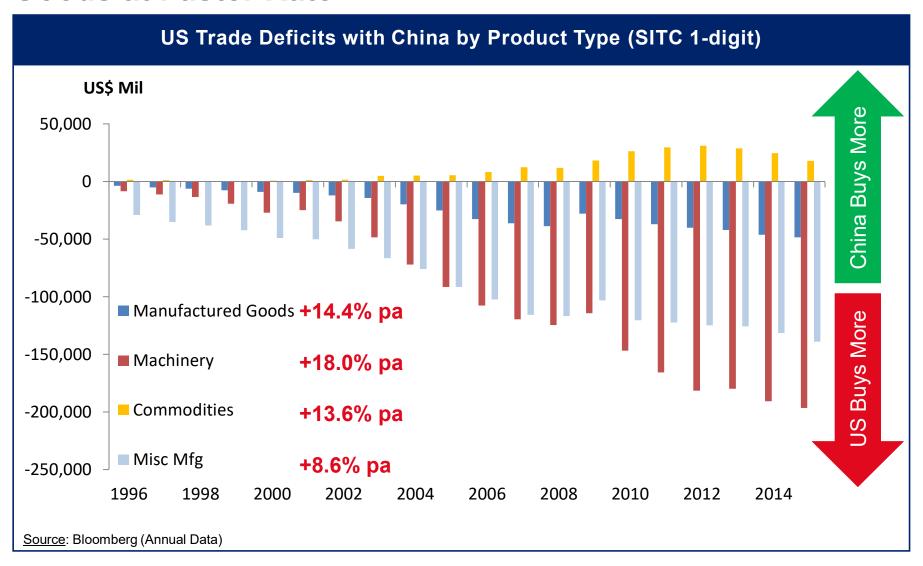


China is America's 3rd Largest Exporting Partner (10%); America is China's Largest Exporting Partner (18%)





US Buying Higher Value-added Items & Capital Goods at Faster Rate





Although US Is Recovering, It May Not Translate To More Global Trade



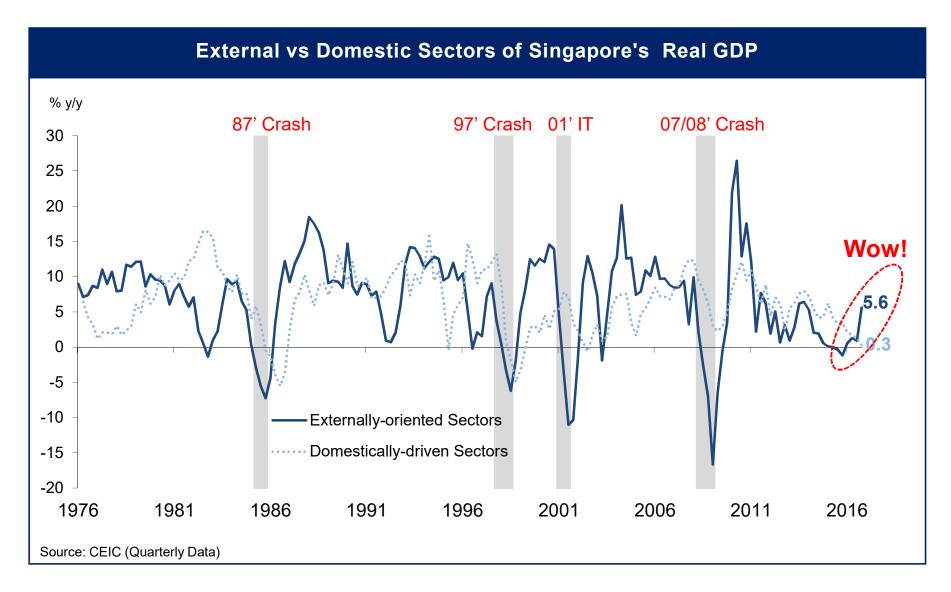


Singapore's Economic Fate

The Good Years of Blind-driving are Over

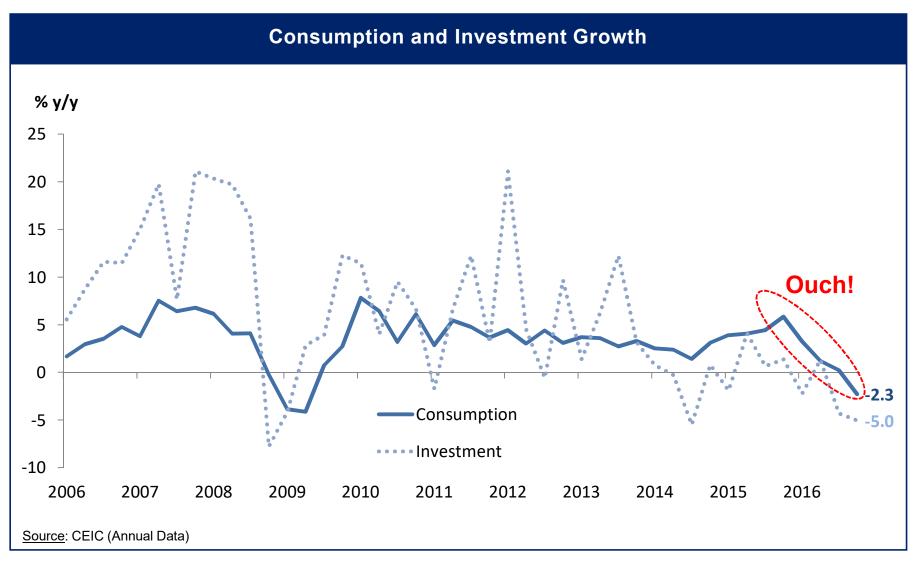
Bright Spots in External Sectors since 2H 2016





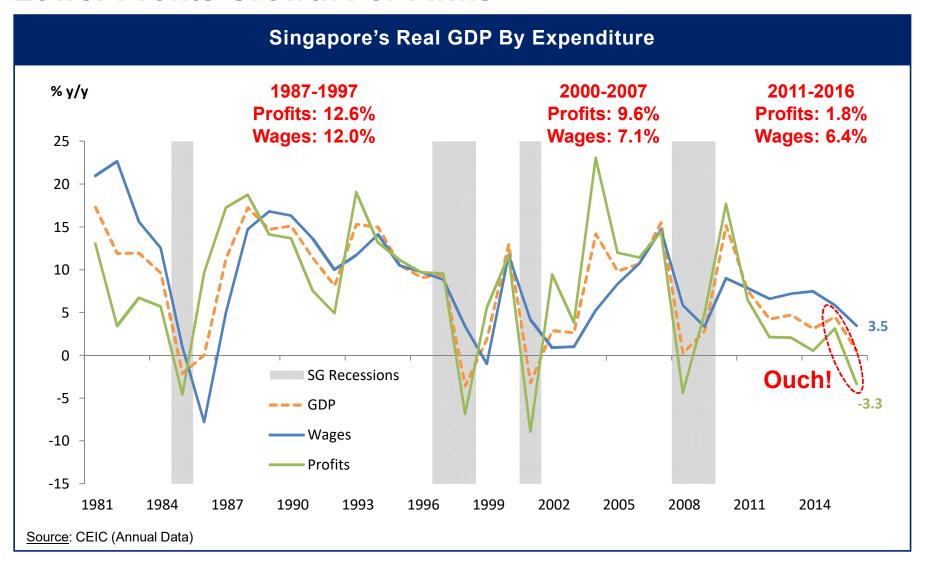


Nevertheless, Weak Consumption and Investment Growth





Labour Market Tightness Since 2011 Resulted In Lower Profits Growth For Firms



A Brief History of Our Economic Strategy









2016 Committee For Future Economy



2010 Economic Strategies Committee



- 3. Growing human and knowledge capital;
- 4. Creating high-value jobs for Singaporeans;
- 5. Maximising finite resources such as land and energy

$$Y = AL^{\beta}K^{\alpha}$$



2016 Committee For Future Economy



<u>Future growth industries and markets</u>. Identify and design growth strategies for priority clusters in Singapore, and to enable companies to seize opportunities in the global marketplace.

<u>Corporate capabilities and innovation</u>. Recommend strategies to enable companies and industry clusters to develop innovative capacities, and use technology as well as new business models and partnerships to create value.

<u>Jobs and skills</u>. Assess the impact of demographics and technology on the labour force, and recommend strategies to create and re-design jobs, and to equip Singaporeans with the skillsets needed for the future.

<u>Urban development and infrastructure</u>. Recommend strategies to enhance our infrastructure and develop sustainable urban spaces, so as to create an outstanding living environment for our people and reinforce economic advantage.

Connectivity. Study modern connectivity and flows in the future global economy and recommend how Singapore can continue to be a hub that brings value to Asia and the world.

Comparing The 2016 Goals With 2010's



2010

2016

- 2. Anchoring global companies in Singapore while nurturing home-grown enterprises;
- 2. Corporate capabilities and innovation.
- 3. Growing human and knowledge capital;
- 3 Jobs and skills.

4. Creating high-value jobs for Singaporeans;

4. Urban development and infrastructure.

5. Maximising finite resources such as land and energy

5.Connectivity.

$$Y = AL^{\beta}K^{\alpha}$$

"Old Song, New Singer"



Tackling 5 Areas

Using 7 Strategies









1. Future growth industries and markets.

Deepen and diversify our international connections

Build strong

capabilities

digital

Acquire and utilise deep skills Strengthen enterprise capabilities to innovate and scale up

2. Corporate capabilities and innovation.

3. Jobs and skills:

4. Urban development and infrastructure.

5.Connectivity.





Develop a vibrant and connected city of opportunity



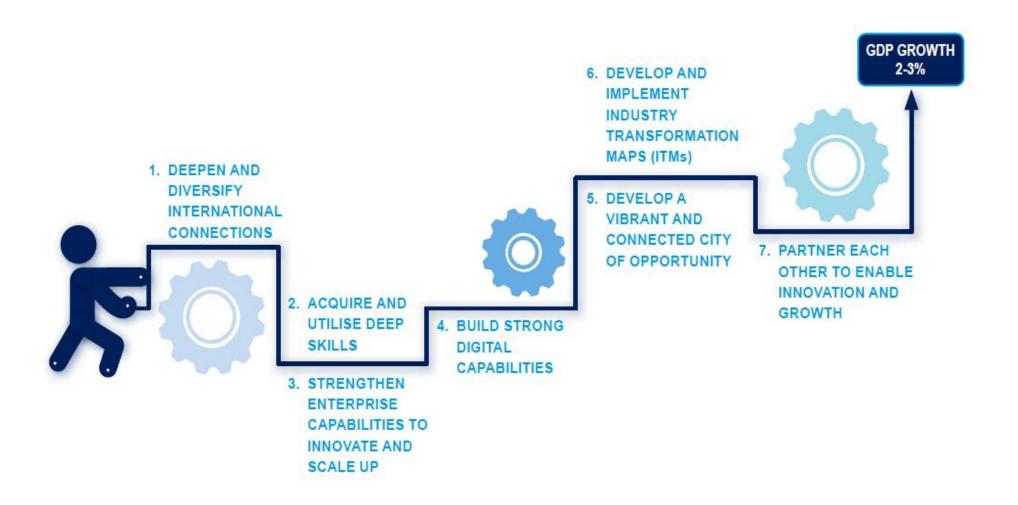
Develop and implement Industry Transformation Maps



Source: COMMITTEE ON THE FUTURE ECONOMY STRAITS TIMES GRAPHICS

The 7 Strategies Identified By The CFE...





... Matched To The Initiatives Announced In Budget 2017



GDP GROWTH

2-3%

Over \$\$100mn to build capabilities under the below initiatives:

Setting up of Global Innovation Alliance for Singaporeans to gain overseas experience, build networks and collaborate abroad.

Consists of 3 programmes:

- 1. Innovators Academy
- 2. Innovation Launchpads
- 3. Welcome Centres
- SkillsFuture Leadership **Development Initiative** will support companies to groom Singaporean leaders.

S\$2.4bn Set Aside Over The Next 4 Years To Implement The **CFE Strategies**

Industry Transformation Maps to bring together various stakeholders to come together to transform each sector. 23 sectors identified, covering 80% of the economy.

To top up the **National Productivity Fund** by S\$1bn to support industry transformation.

> 6. DEVELOP AND IMPLEMENT INDUSTRY TRANSFORMATION MAPS (ITMs)

5. DEVELOP A VIBRANT AND CONNECTED CITY OF OPPORTUNITY

7. PARTNER EACH OTHER TO ENABLE INNOVATION AND

To make significant investments in GROWTH

critical economic infrastructure: **Changi Airport Terminal 5, KL-SG**

High Speed Rail, Tuas Terminal to deepen Singapore's connectivity to global markets.

- . Invest in shared infrastructure for economic clusters so that industry players can network, pool resources and share knowledge.
- . To implement carbon tax on the emission of greenhouse gases from 2019.
- . Restructuring Diesel Taxes
- . Vehicular Emissions Scheme
- . Early Turnover Scheme

. Water Price Changes

. To support firms in their efforts to innovate, A*STAR will embark on the following efforts: Operation & **Technology Road**mapping, Headstart **Programme, Tech Access** Initiative

- SPRING's IP Intermediary
- **New Tech Access** Initiative
- Public Sector Construction **Productivity Fund**

1. DEEPEN AND DIVERSIFY INTERNATIONAL CONNECTIONS 3. STRENGTHEN ENTERDED

- Up to S\$600mn in a new International Partnership Fund that will co-invest with SCALE UP Over S\$80mn will be made Singapore-based firms to help them scaleup and internationalise.
- IE Singapore's Internationalisation Finance Scheme will be enhanced.
- To top up the National Research Fund by S\$500mn to support innovation efforts.

Increasing Accessibility of Training for all Singaporeans.

Strengthening On-the-Job Skills Utilisation.

2. ACQUIRE AND UTILISE DEEP SKILLS

> CAPABILITIES TO INNOVATE AND

available for these programmes:

- Introduce the SMEs Go **Digital Programme** to help SMEs build digital capabilities.
- data and cybersecurity.



4. BUILD STRONG

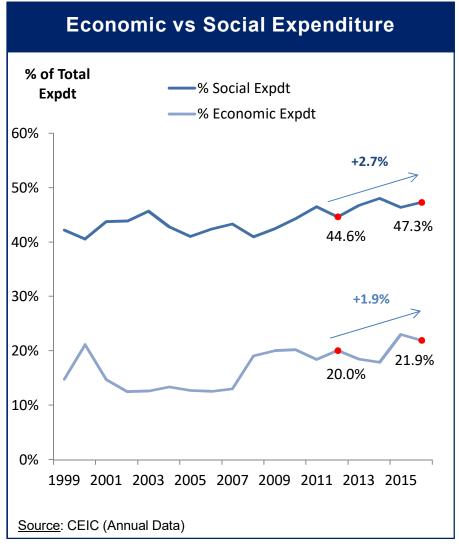
CAPABILITIES

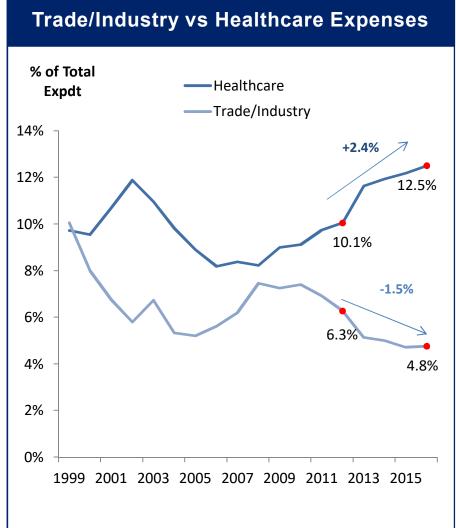
DIGITAL





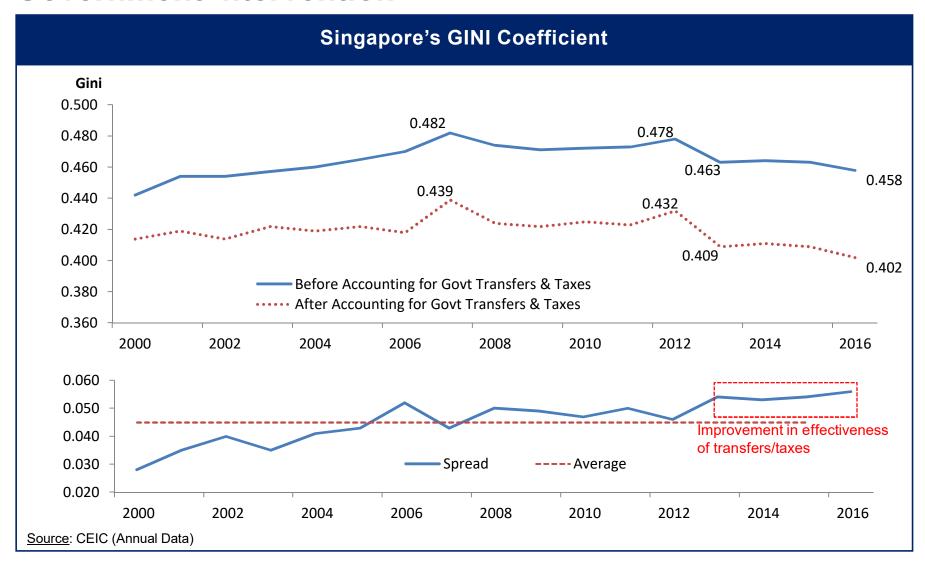
Lots More Emphasis on Social Expenditure Since 2011







Improvement in GINI Coefficient, Especially after Government Intervention



We Face New Challenges

The Future Beyond SG50: New World, New Challenges

im said: "Whilst independence has...



A.1. Madam Speaker, I beg to financial policy of the Gove 2016 to 31st March 2017.

A.20. Core for us to succeed is the spirit of partnership, where 1 of action ..., we also acquire new Singaporeans work together in new ways to transform our economy and strengthen our society.

B.3.

hese

racial conflict and pro-communism. Today, we have to guard ourselves against a more complex and diverse array of threats,

We Have Come a Long V

- A.2. Last year, we celebrated a This year, we sta
- A.3. ur first 5 rercor grea pione

investr

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- The r Comm
- Few in this ba
 - A.17. I
 - must remain prudent in our expenditures, and ensure ev additional dollar spent is spent responsibly. We must encourage every Singaporean to contribute towards caring for our fellow citizens and building for the future.

A Spirit of Partnership for our New Chapter

A.21. We have inherited a

Conver

collectiv

Going

Singap

challen

A.23. Everyone has a role, and

A.24. We must come toge

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resources, to innovate

economic transformation

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resilient society. Over the last decade, the

kampong days. Over th

new vitality, from the

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A.19. Much work lies ahead. I am confident that if we have the will, we will find the way.

- B. Transfor With a ti and Inno median i Growing Sing 2.9% De ductiv Whi in vear B.z. Over the pa due to th focused on I
 - growth h Weti years9. V b. We Economic Challen
 - He **cycl** the B.4. insurance did w Progress ha and offshore se-More

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SME

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from

- B.5. I am aware th uncertain. Man ing manpowe renchmen In the coming y mal demar pose strong hea
 - For our intelligenc

- B.7. The pace of global economic recovery is uneven, with the US being the most advanced, while Europe and Japan will only see modest growth aided by monetary stimulus. Closer to home. China is going through a transition towards a more sustainable growth path. It is a complex transition and any short-term
- B.8. We therefore expect externally-oriented sectors such as manufacturing to continue to face subdued demand. The extended downturn in oil and other commodity prices is affecting commodity-related activities, particularly the marine and offshore sector. Weak global demand in electronics will spill over to related sectors such as precision engineering.

setbacks may create volatility in the financial markets.

- But ile overall growth is subdued, our business landscape is There are pockets of growth and resilience. Even within the medtech and chemicals sectors are growing. of services, including tourism, financial services, Exports Information and Communications Technology (or ICT) and consultancy are benefiting from regional demand. Domesticsectors such as retail, healthcare and e ation have stable. been truction o, will be exp ion pub infra ucture and supp hous proj s, ev is pri enuai demani nas ebbed.
- more competitive and gaining market share, while others are seeking to relocate to cheaper destinations.
- B.11. Similarly, prospects in the labour market are mixed. Overall, redundancies increased in 2015 as global demand slowed and systems to keep our nome sare and secure.
- .15. All these translate into higher spending needs. Our expenditures have grown to almost two and a half times of what



Budget 2017



Moving Forward Together

_	Budget 2017	Pages	Number		
Social	A Caring and Inclusive Society	32 to 42	11		
S			(26%)	2016=34%	
	An Innovative and Connected Econ	nomy			
>	Managing the Transition	6 to 10	5		
Economy	The Future Economy	11	1	18 (43%) 2016=66%	
	*Strengthening Enterprises Capabilities	12 to 15	4		
	*Deepening People's Capabilities	16 to 19	4	2010 0070	
	*Partnerships for Shared Success	20 to 23	4		
City	A Quality Living Environment	24 to 31	8	(19%)	
Prudence A Sustainable Fiscal System UOB Global Ecol		43 to 47	5	(12%)	



Budget 2017



Moving Forward Together

_	Budget 2017	Pages	Number			
ocia	A Caring and Inclusive Society	32 to 42	11			
S			(26%)			
	An Innovative and Connected Ecor	nomy				
Short-Term	Managing the Transition	6 to 10	5	(28%)		
0	The Future Economy	11	1	2016=16%		
Long-Term	*Strengthening Enterprises Capabilities	12 to 15	4	13 (72%) 2016=84%		
	*Deepening People's Capabilities	16 to 19	4			
	*Partnerships for Shared Success	20 to 23	4			
City	A Quality Living Environment	24 to 31	8	(19%)		
Prudence UOB Global Eco	A Sustainable Fiscal System			(12%)		





Building Our Future, Strengthening Social Security







Partnering for the Future







Moving Forward Together





Doing It The Hard Way: Measuring Word by Word

Top Words Mentioned In 2016

Words	2016	2017	2017-16
support	147	71	-76
transform	66	9	-57
industries	58	26	-32
innovate	54	38	-16
work	52	24	-28
develop	51	35	-16
sector	47	40	-7
build	44	32	-12
firm	44	30	-14
senior	43	1	-42
help	42	51	9
together	42	23	-19
people	40	20	-20
business	39	24	-15
first	38	16	-22
provide	37	29	-8
need	36	37	1
worker	35	26	-9
receive	35	14	-21
scheme	34	29	-5
budget	33	29	-4

Top Words Mentioned In 2017

Words	2016	2017	2017-16
support	147	71	-76
increase	27	58	31
help	42	51	9
tax	24	50	26
fund	27	41	14
sector	47	40	-7
innovate	54	38	-16
need	36	37	1
develop	51	35	-16
measure	28	34	6
capable	12	33	21
build	44	32	-12
water	0	31	31
firm	44	30	-14
enhance	18	30	12
communities	18	30	12
rebate	12	30	18
provide	37	29	-8
scheme	34	29	-5
budget	33	29	-4
economies	33	29	-4

Source: MOF, UOB Data Management Office



As % of All Words

Top Words Mentioned In 2016

Words	2016	2017	2017-16
support	2.06%	1.26%	-38.9%
transform	0.93%	0.16%	-82.8%
industries	0.81%	0.46%	-43.3%
innovate	0.76%	0.67%	-11.0%
work	0.73%	0.43%	-41.6%
develop	0.72%	0.62%	-13.2%
sector	0.66%	0.71%	7.6%
build	0.62%	0.57%	-8.0%
firm	0.62%	0.53%	-13.8%
senior	0.60%	0.02%	-97.1%
help	0.59%	0.90%	53.6%
together	0.59%	0.41%	-30.7%
people	0.56%	0.35%	-36.8%
business	0.55%	0.43%	-22.2%
first	0.53%	0.28%	-46.7%
provide	0.52%	0.51%	-0.9%
need	0.50%	0.66%	30.0%
worker	0.49%	0.46%	-6.0%
receive	0.49%	0.25%	-49.4%
scheme	0.48%	0.51%	7.9%
budget	0.46%	0.51%	11.1%

Top Words Mentioned In 2017

Words	2016	2017	2017-16
support	2.06%	1.26%	-38.9%
increase	0.38%	1.03%	171.7%
help	0.59%	0.90%	53.6%
tax	0.34%	0.89%	163.5%
fund	0.38%	0.73%	92.1%
sector	0.66%	0.71%	7.6%
innovate	0.76%	0.67%	-11.0%
need	0.50%	0.66%	30.0%
develop	0.72%	0.62%	-13.2%
measure	0.39%	0.60%	53.6%
capable	0.17%	0.59%	247.8%
build	0.62%	0.57%	-8.0%
water	0.00%	0.55%	∞
firm	0.62%	0.53%	-13.8%
enhance	0.25%	0.53%	110.8%
communities	0.25%	0.53%	110.8%
rebate	0.17%	0.53%	216.2%
provide	0.52%	0.51%	-0.9%
scheme	0.48%	0.51%	7.9%
budget	0.46%	0.51%	11.1%
economies	0.46%	0.51%	11.1%

Source: MOF, UOB Data Management Office

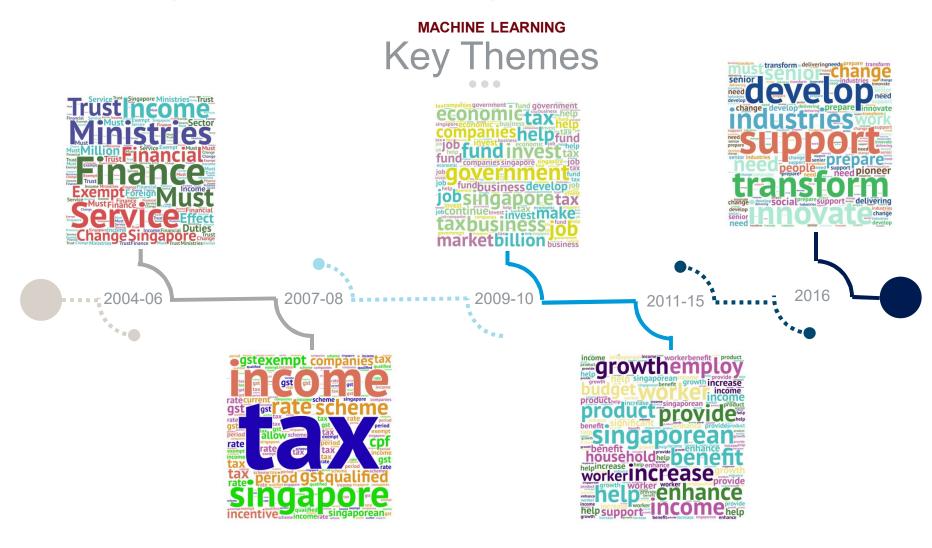


Topic Modelling Past Budgets Using Latent Dirichlet Allocation Technique

Governance 2004-05	Taxation 2006-08	Economy 2009-10	Citizens 2011-15	Innovation 2016-17
Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Finance	Tax	Govern	Singaporean	Support
Ministries	Income	Businesses	Worker	Innovation
Service	Qualify	Tax	Increase	Transform
Trust	Scheme	Invest	Provide	Firm
Tax	Companies	Help	Help	Industries
Exempt	Rate	Job	Income	Develop
Worker	Finance	Economic	Employment	Work
Opportunities	Allow	Companies	Enhance	Programme
Operate	Period	Fund	Benefit	Prepare
Income	Exempt	Economies	Product	Build
Change	CPF	Market	Scheme	Sector
Effect	GST	Sector	Growth	People
Individuals	Treatment	Well	Budget	Together
Attract	Employ	Grow	Foreign	Deliveries
Competitors	Incentives	Develop	Support	Technology



Utilising Machine Learning To Sieve Out Key Themes-From Singapore's Annual Budgets





Topic Modelling on Previous Budgets Using The Latent Dirichlet Allocation Method

- QUESTION
 - "Can we uncover key themes from past budget statements?"
- 2 CHALLENGE
 Understand and organize large collections of unstructured text bodies in a short time



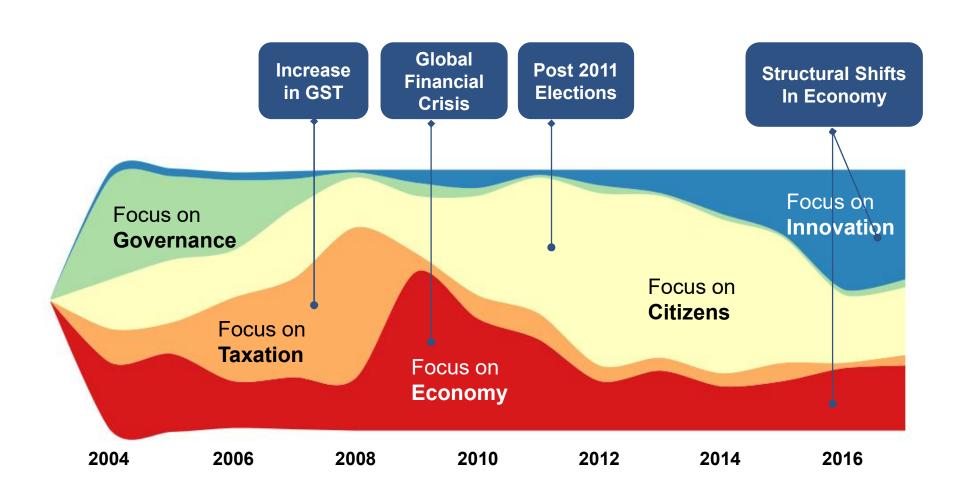






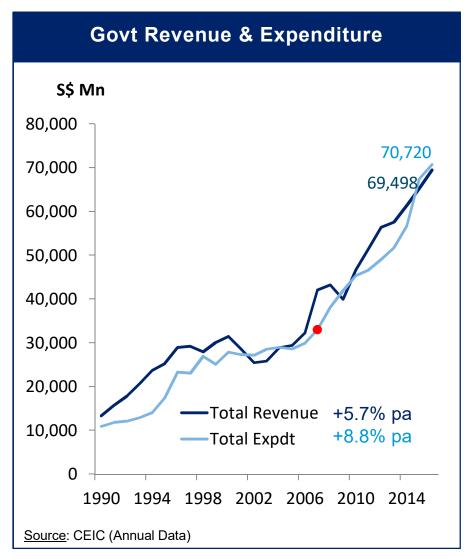
Results

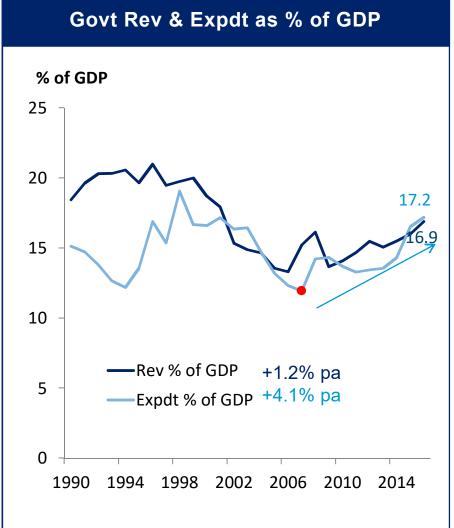




Expenditure Is Really Rising Very Quickly









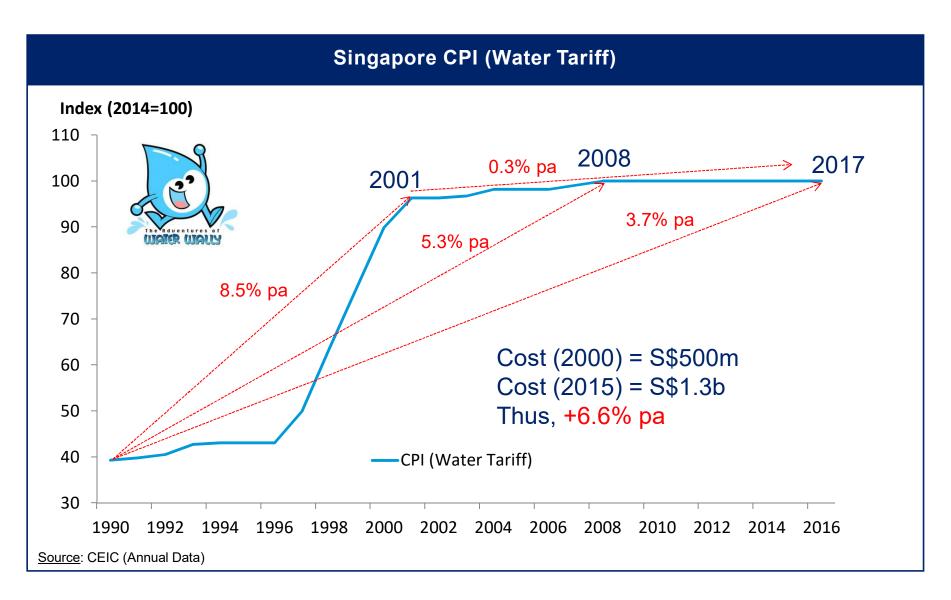
Balancing The Budget

	Govt Est	Actual	Govt Est	UOB Est		
S\$ mn	FY2016	FY2016	FY2017	FY2017	% chg	
Operating Revenue	68,440	68,670	69,450	70,926	1.1%	
Total Expenditure	73,430	71,390	75,070	74,095	5.2%	
Operating Expenditure	54,430	52,680	56,300	54,473	6.9%	
Development Expenditure	19,000	18,710	18,770	19,622	0.3%	
Primary Budget Balance**	-4,990	-2,720	-5,620	-3,169	106.6%	
Less: Special Transfers	6,270	6,470	6,580	5,362	1.7%	
Add: NIR Contribution	14,700	14,370	14,110	15,696	-1.8%	
Overall Budget Balance	3,440	5,180	1,910	7,164	-63.1%	
% of GDP	0.85	1.30	0.40	1.70		
Source: Ministry of Finance						
* Figures may not add up due to rounding						
** Surplus (Deficit) before Special Transfers and N	et Investment Income	(NII) Contribu	tion			

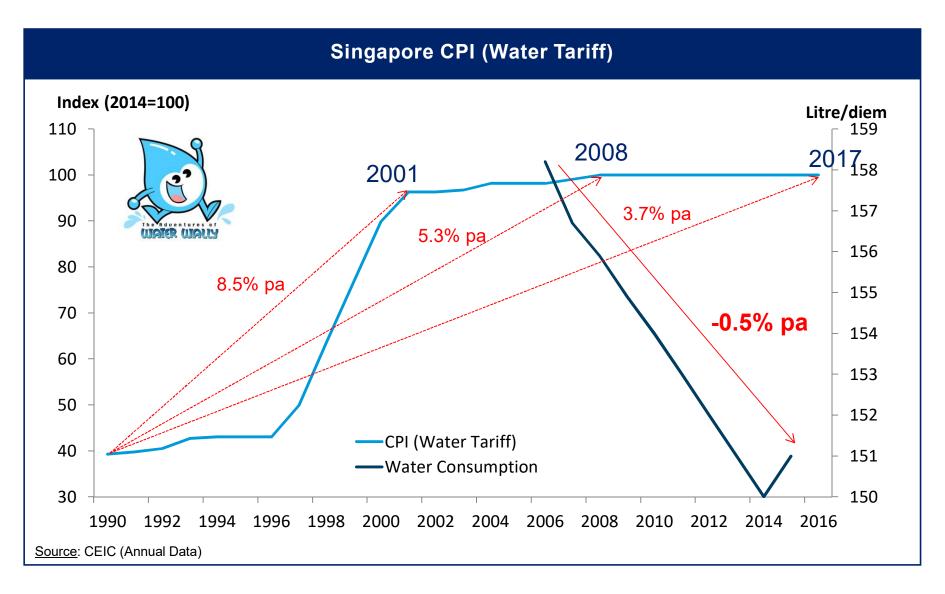
⁵³

Lastly...









₩UOB

In Summary

- Rising trade protectionism is a net negative for the global economy. The
 problem is not about free trade; It's about the more equal distribution of
 wealth/income amongst the population. Rather than looking at their internal
 allocation process, charismatic leaders are hitting out at the wrong issue and
 conveniently putting the blame to other countries ("easy targets").
- Should the US erect a full wall of trade protectionism against China, the
 effect will be equally bad for themselves. China may suffer from an initial
 trade shock, but will overcome it eventually, due to the various reasons
 discussed. It's other emerging economies that will be more at risk, since
 they urgently need to get into manufacturing to avoid the poverty trap.
 Without trade, current account and fiscal deficits will the key problems facing
 them and emerging market currencies will thus experience more
 depreciation pressures.
- Singapore urgently needs to find new reasons for our existence. Our
 population is ageing at quite a quick rate and creates an ever-pressing need
 to restructure the supply side of the economy.



Question & Answer Session

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About The Speaker

Francis is an Asian economist with United Overseas Bank's Global Economics & Markets Research team with special focus on research on ASEAN economies. He provides regular economics commentary on TV and is frequently quoted in the media. Before joining UOB in 2012, Francis was an investment strategist at Phillip Capital where he used macroeconomics, business cycle theories, market timing and technical analyses to develop a systematic top-down investment approach for discretionary portfolios. Prior to that, Francis served as an Investment Manager in the wealth management arm of the Royal Bank of Scotland. His career also included stints as an economist at the Ministry of Trade and Industry and the Singapore Tourism Board, where he specialised in Tourism Economics.

Francis obtained the Bachelor of Social Science (Honours) in Economics in 2002 and the Master of Social Science in Applied Economics in 2003 from the National University of Singapore. Continuing his academic interests in the field of applied economics, Francis most recently contributed a chapter titled "Tourism Demand in Singapore: Estimating Neighbourhood Effects" in the Handbook of Tourism Economics published in 2013, and had published a paper titled "Growth and Environmental Quality in Singapore: Is There Any Trade-off?" in the "Ecological Indicators" journal in 2014.

Thank You

