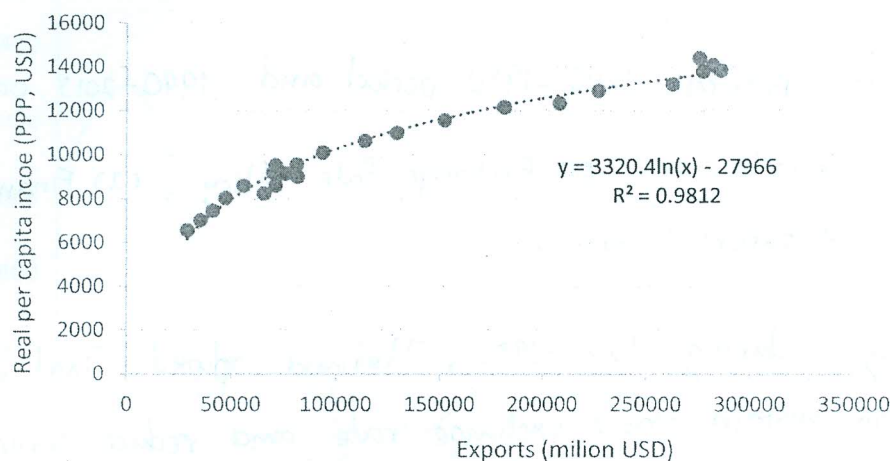


1. Explain how international trade has contributed to Thailand's economic development (Figure 1) Furthermore, compare and contrast patterns of trade and trade consequences between these two periods: 1850-1950 and 1990-2015.

Figure 1. Income and exports: 1990-2015



Before coping how international trade affects Thailand, I would like to mention how international trade contribute to economic growth first. According to Bela Balassa: "Export-led Growth Hypothesis", the export-oriented policies provide 5 merits; (1) better resource allocation due to comparative advantage. (2) greater capacity utilization due to larger market (3) permission of exploitation of economies of scale (4) technological improvements due to competitiveness in international market and (5) increase in employment (in labor-surplus countries).

And according to Dani Rodrick's Theory of growth; one factor which could affect country's income is the trade. Since trade creates an integration of market. Hence, in general sense. International trade contributed a lot in economic growth of a country.

Now applied the above statements with Thailand economic development. Since 1850s, Thailand has opened for world trade in both exports and imports. At first, Thailand main exports are agricultural products (e.g. rice). Which helps Thai economy a lot in term of Economic growth. And even developed faster in year 1950s-1990s.

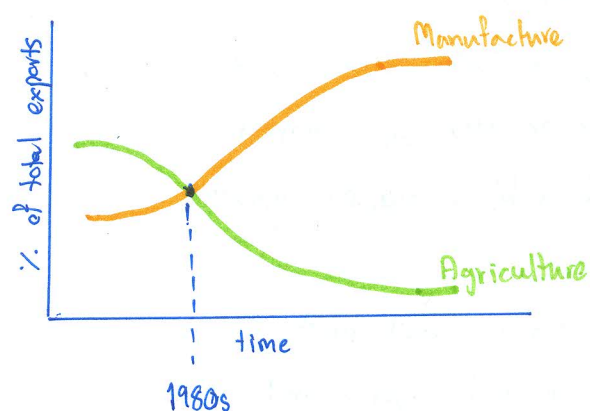
This export-led economy of Thailand contributes stable and high growth as long as world economy expands. But export-led economy also consists of risk in foreign currency exposure. As happened in 1997 during AFC and 2009 during GFC. When world economy collapsed, Thailand falls too. But thanks to the resilience of Thai economy which has an ability to recover in short time due to (1) Flexible wage adjustment and (2) FDI from abroad.

To mention the differences between 1850-1950 period and 1990-2015 period. The 3 important points of contrasts are (1) Exchange Rate Policy, (2) Financial Sector regulations and (3) Export Structure.

(1) Exchange Rate Policy: during 1850-1950, Thailand adopted Fixed exchange rate regime. Which is good to sustain stable exchange rate and reduce foreign currency exposure risk. But it might result in disaster when the government tried to capture all 3 impossibilities at the same time like in 1997. From 1997 - today, we changed to flexible rate of exchange. Letting THB float due to market forces.

(2) Financial sector regulations in Thailand have been improved since 1997 to prevent overlending / borrowing due to irrational exuberance.

(3) Structure of Thailand's exports has shifted from agriculture to manufacture.



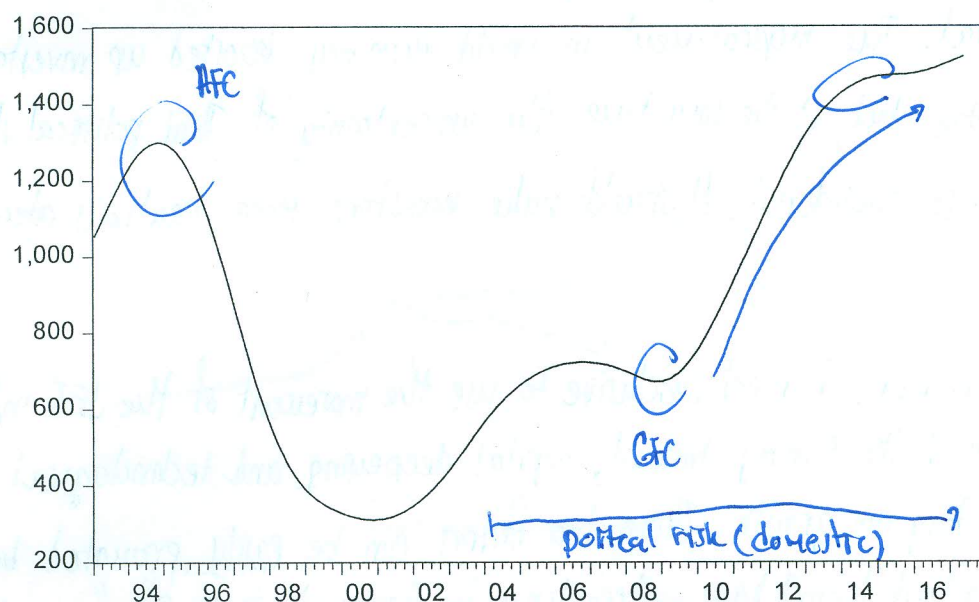
(Source: Lecture 10, Page 16)

Concluding remarks; international trade contributes a lot to Thai's economic development. But also exposed us to world economic risks at the same time.

Key: Export-led growth, Theory of Growth, change in exchange rate policy, change in export structure
Foreign currency exposure

2. The Stock Exchange of Thailand index (SET) has already hit the twenty-four years high in October 2017 and it is climbing toward 1,700 points. Does the rise reflect rational exuberance? Does the rising trend of the SET index (Figure 2) indicate higher long-term growth path of the economy?

Figure 2: SET on the rising trend



From the given figure, it can be clearly seen that the SET index has significantly improved from the early 2000. ~~Regardless~~ Regardless of the GFC and the political turmoil in Thailand, the SET index has managed to reach its 24-year high in October as stated. It is important to determine the fundamental factors that contribute to the rise in order to determine the sustainability of this increasing trend.

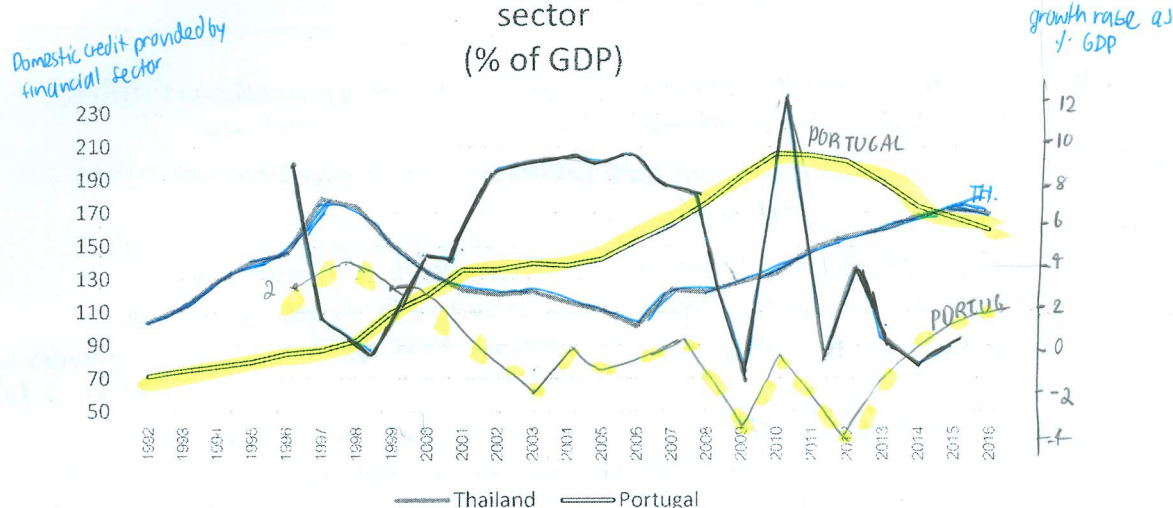
This rising trend of SET index doesn't seem to be a ^{complete} reflection of rational exuberance. The major reason lies in the political instability of Thailand. Even though the rise of the index is persistent, the political instability should directly impact the consumer confidence and the business sentiment in Thailand. As shown in the lecture 9, the business sentiment index in terms of output prices, foreign order books, & domestic order books are all below 90. This represents a worsen business sentiment in Thailand as previously mentioned. None

-the less, a rise in the index may be a result from the improvement of the global economy. A ~~rise~~ decision to rise the fed fund rate helps boosting the confidence among the investors in such way that they believe the global recession / economic slowdown has finally come to its very end. This may be one of the factor that ~~drive~~ drove the index to rise. Keynes' animal spirit may be the reason that directed the investment trend in Thailand. Hence, it can be seen that the rise ~~is~~ was not entirely an outcome from irrational exuberance nor is it completely rational. The improvement in world economy boosted up investor's confidence around the globe, but, at the same time, the uncertainty of Thai political stability and policies should be also considered. It should make investors more cautious about the current situation.

In relatively similar manner, it is not conclusive to use the movement of the SET index to justify the long term growth of the economy. Instead, capital deepening and technological progress can lead the economy to the long run growth. These two factors can be easily promoted by good ~~institutions~~ institution, which Thailand doesn't have. According to Acemoglu and Robinson, it might be possible to categorized Thai government as extractive institution. As a military-led government, it doesn't seem possible that Thailand's fiscal budget can be allocated to maximised its efficiency. A decline in budget allocation to education and healthcare will damage the economic growth in the long run. According to T. Schultz, investment in education can and will lead to technological and agricultural development. ~~At the same time~~ Similarly, health capital ~~is also a contribution~~ can also contribute to economic growth as Grossman purposed. Hence, it can be seen that without these proper development, Thai economy cannot sustain its growth. This means a rise in SET index alone which show high improvement among business and financial sector cannot completely ~~not~~ indicate Thai improvement in its long term growth path.

3. Examine the role of domestic credit in shaping business cycles in Thailand and Portugal (Figure 3).
Discuss how Thailand's capital flows interacted with credit expansion, interest rates, and exchange rates.

Figure 3. Domestic credit provided by financial sector (% of GDP)



✓ According to Hayek, the growth in output is correlate with the credit supply. If we can control credit supply we can manipulate output in both upturn and downturn business cycle. But it is not always true since when the investor made decision, they also concern the economic environment in that country. Moreover, there are more determinant of growth instead of credit such as FDI, the expansion of world economy, external shock that influence the economy.

Like in Thailand, ~~we~~ ~~we~~ we could see the negative correlation between ^{domestic} credit supply by financial sector and GDP growth. Focusing on year 1996 to 2005, the credit provided decrease as a result of fall in business sentiment from several shock such as Asian Influenza in 2004, tsunami in 2005 and oil price shock in 2006 with ruin Thai export, so much. These uncertain ~~can~~ cannot ensure investor expected income to increase therefore they borrow less. Moreover, the bank of Thailand cannot manipulate the ~~interest~~ yield curve to boost up economy that effectively, so, when lender price in the risk, the ~~the~~ minimum lending rate still high. However, the GDP ^{growth} could rise ^(to hit 6-10%) as a result of high FDI inflow since after 1996 ~~due to Thailand cheap asset and Thai worker competency in meticulous work like composing hard disk drive, induce more investor.~~

from 1996-2008, we see the negative relationship of credit and GDP growth. However after 2009, the credit boom as the government Abhisit could stabilise the political turmoil and bring back democracy that made investor ~~we~~ have a good view to Thailand. Still the credit expansion is fluctuated comparing to GDP growth.

NPL and consumer loan

Comparing to Portugal, we see a clear negative relationship ~~not~~ between credit and GDP growth.
 I suspect that because in ~~developed~~ Portugal may use portfolio investment as a main tool of credit expansion rather than the credit provided by financial sector.

relationship between capital inflow and exchange rate
 interest rate
 credit expansion

$$\text{from } K_f = \alpha + \beta (r - r_f) + \delta \frac{\Delta y}{y} - \phi (\text{risk}) - \eta \left(\frac{\Delta e}{e} \right)^F + \epsilon$$

For interest rate, Thailand ~~is~~ has independent monetary policy from outside world, so the different of domestic interest rate and world interest rate like ~~the~~ interest rate in US may create capital inflow.
 For example ~~the~~ before Asian financial crisis, Thai interest rate is greater than US, so people borrow cheap and invest in Thailand create ~~up~~ large capital inflow.

This also link to exchange rate. ~~It~~ can influence inflow for example if baht appreciate, it is cheaper to import goods ~~or~~ or induce more capital inflow because it is cheaper in this time.
 However, in fixed exchange rate regime, if exchange rate is too ~~appreciate~~ ^{depreciate} than real term, it may be speculate by ^{liberalization of} more buy of dollars.

The capital inflow can unlock the credit ~~expa~~ constraint like in 1990, that Thailand have less saving than credit demand so we borrow from abroad, create higher credit expansion.
 And this link with interest rate that if interest rate is high and exchange rate is fixed, people will inflow more money from abroad.