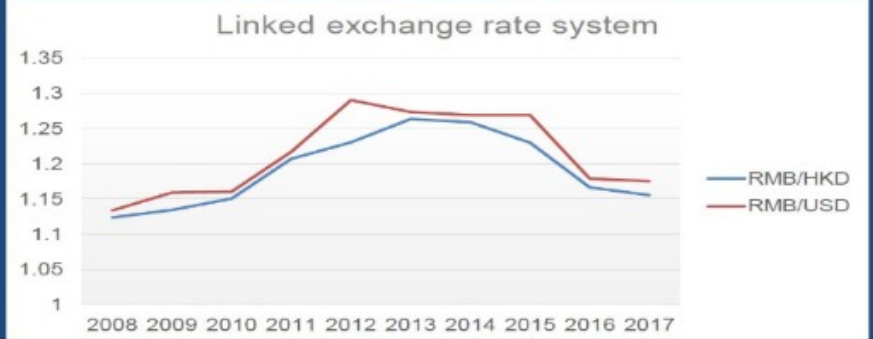
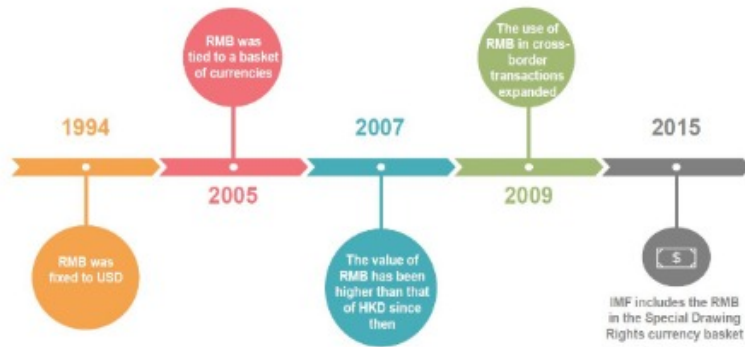


# The impact of inflation in Hong Kong if the renminbi appreciates against the US dollar ?

## Several stages of development of RMB



When the US dollar depreciates (appreciates) against RMB, the HK dollar will depreciate (appreciate) against RMB

## Imported inflation

- If the USD depreciates against the RMB, this has forced the HKD to depreciate
- The price in terms HKD of imported goods from the mainland become more expensive
- Given that Hong Kong is a small open economy, we import most of our food (like vegetables, pork) and other daily necessities from the mainland, the depreciation of the USD raises our cost of living

## Literature review

- HKMA has conducted a research (2008) about a renminbi appreciation for inflation in Hong Kong
- HKMA suggests that the effect of appreciation of the renminbi on Hong Kong's inflation through change in import prices is likely to be modest
- A 10% appreciation of the renminbi against the Hong Kong dollar raises Hong Kong's consumer price inflation by 0.4 percentage points

Does this conclusion still apply to Hong Kong today?

## What is CPI?

	Expenditure range	Approximate percentage of household covered
CPI (A)	\$5,500-\$24,499	50%
CPI (B)	\$24,500-\$44,499	30%
CPI (C)	\$44,550-\$9,999	10%

Consumer Price Index (CPI) provides a measure to reflect the cost of living of how changes in price level of consumer goods and services generally purchased by households

## CPI(A)

Expenditure section	CPI (A)	CPI (B)	CPI (C)
Food	33.68	27.16	20.87
Housing	32.19	31.43	31.36
Miscellaneous services	11.44	16.31	20.25
Electricity, gas and water	4.36	2.84	2.03
Alcoholic drinks and tobacco	0.91	0.56	0.29
Clothing and footwear	2.60	3.45	4.39
Durable goods	3.73	5.73	6.39
Miscellaneous goods	3.87	4.17	4.49
Transport	7.22	8.35	9.93
Total	100	100	100

Since the category of food takes a greater weighting in CPI(A), the increase in the prices of food will lead to a greatest increase in CPI (A)

## Regression model

$$\Delta \ln(PM_t) = \beta_1 + \sum_{i=0}^n \beta_{2i} \Delta \ln(NEER_t) + \sum_{i=0}^n \beta_{3i} \Delta \ln(FPC_t) + \varepsilon_{1,t}$$

where  $PM_t$  = Import prices  
 $NEER_t$  = Hong Kong dollar nominal effective exchange rate  
 $FPC_t$  = Foreign production costs of Hong Kong's key trading partners

$$\Delta \ln(P_t) = \alpha_1 + \alpha_2 MA_n \Delta \ln(ULC_t) + \alpha_3 MA_n \Delta \ln(PM_t) + \varepsilon_{1,t}$$

where  $P_t$  = CPI(A)  
 $ULC_t$  = The unit labour cost  
 $PM_t$  = Import prices

## Conclusion

- A 10% depreciation of the Hong Kong NEER would lead to a 0.23% ( $= 0.32047 \times 0.07389 \times 10$ ) increase in CPI (A)
- Imported inflation is not as much as may be perceived
- Results matched with HKMA's research

1984-1991	1992-2007	2008-2017
1.03%*	0.67%*	0.23%

## Results

Source	SS	df	MS	Number of obs	=	42
Model	.033121157	2	.016560578	F(2, 39)	=	46.22
Residual	.013972536	39	.00035827	Prob > F	=	0.0000
Total	.047093693	41	.001148627	R-squared	=	0.7033
				Adj R-squared	=	0.6881
				Root MSE	=	.01893

	log_PM	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
log_NEER		-.3204686	.1750519	-1.83	0.075	-.6745446 .0336073
log_FPC		.9336133	.0971946	9.61	0.000	.7370187 1.130208
_cons		2.578012	.3497541	7.37	0.000	1.870568 3.285457

1% depreciation of NEER would lead to an increase import price by 0.3%

Source	SS	df	MS	Number of obs	=	40
Model	4212.15406	2	2106.07703	F(2, 37)	=	456.28
Residual	170.783688	37	4.61577536	Prob > F	=	0.0000
Total	4382.93775	39	112.383019	R-squared	=	0.9610
				Adj R-squared	=	0.9589
				Root MSE	=	2.1484

	CPI	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ULC		.2241933	.0164975	13.59	0.000	.1907662 .2576204
PM		.0738887	.03872	1.91	0.064	-.0045654 .1523429
_cons		18.6437	4.232274	4.41	0.000	10.0683 27.2191

1% increase in PM would lead to an increase CPI by 0.07%

## ANS: Online shopping

The percentage of people that had shopped online in the last 12 months rose from 7% in 2004 to 16% in 2009 to 23% in 2014

## Substitution effect

The impact of an appreciation of the RMB on inflation through price increases in food is limited

## QUESTIONS

Why exchange rate does not contribute much in CPI?

Why the exchange rate pass through declines?