

▶ Chapter 2 ◀

Transitional and Medium-Term Designs of the Reform

In view of the risk and limitations of the various proposed reforms outlined in Section 1.2 of Chapter 1, the author had written a series of reform proposals¹ that could be classified into the following three areas of reforms: (a) the appropriate transitional arrangements; (b) the medium-term arrangements; and (c) the supplementary package of policies that could increase the chance of a successful reform as well as China's immunity and resilience against financial crises in the future. As we will see, the reforms implemented by the Chinese authority resembled closely to these proposals, which had far more sophisticated dimensions than previous proposals in the debate.

2.1 The Proposed Transitional Reform

This section will outline the proposed transitional reform which contains the following three important parts:

2.1.1 *Gradual Appreciation, No Major or Medium Jump in Exchange Rate and No Widening of Band*

The first part of the proposals highlighted that any widening of the exchange rate band at the initial stage was not advisable. Given the market's

¹ The proposals were sent to the appropriate authorities in China. They were also published in major Chinese newspapers in Hong Kong (*Hong Kong Economic Journal*) and Singapore (*Lianhe Zaobao*) between November 2004 and July 2005, followed by further post-reform comments and follow-up proposals. Yip (2005) also wrote a chapter that provided a summary discussion of the proposals.

belief of a substantial under-valuation of the renminbi (see Footnote 9 of Chapter 1), a widening of the band would only result in an immediate appreciation of the renminbi to the upper edge of the band, which would in turn induce more inflows of speculative funds, thus creating greater pressure for appreciation. Neither should there be any major or medium jump in the exchange rate. Instead, the Chinese government should at the initial stage engineer a very gradual appreciation of, say, 1–2% per annum with the pre-condition that speculative funds could not profit after the deduction of the transaction costs and risk premium of the (illegal) inflows.² If necessary, the Chinese government could raise the effort of inspection and penalty so as to increase the transaction costs and risk premium of this type of speculation.

Once the above gradual appreciation was sustained for a few years, the Chinese government could further refine its exchange rate policy based on the changing economic conditions. For example, it could raise the appreciation rate to, say, 2–3% if there was a rise in global inflation. It could also resort to depreciation in the case of extreme economic adversity. If there was no major change in the economic conditions, it could maintain the 1–2% appreciation target. These actions would gradually convince the market that the renminbi is no longer fixed *vis-à-vis* the US dollar, and could appreciate or depreciate. This in turn would lay the foundation for China to move towards its preferred exchange rate system in the longer term.

The benefit of a very gradual appreciation is that it can maintain a relatively low exchange value of renminbi for a reasonably long period, thus ensuring a strong economic growth and employment in the medium future.³

² Because of the capital control, the transaction costs and risk of speculating for an appreciation of the renminbi at that time were reasonably high (i.e., higher than 2%). Thus, the 1–2% target was just a tentative suggestion which had also taken care of the psychological effect. The Chinese government could make its judgment in striking a balance between the psychological effect and its estimation of the speculators' transaction costs and risk premium. Nevertheless, it should also be highlighted that, even when there was no appreciation of the renminbi, the speculators' gain in property and share price could be more than the transaction costs and risk premium. Thus, curbing of asset inflation would also play an important role in discouraging speculative inflows of funds (see Chapter 3 for more details).

³ As explained in Box 1.2, the employment situation in China was not as good as that implied by the high economic growth rates of 8–10%. A major revaluation or appreciation could push the unemployment rate to politically and socially unbearable levels.

The cost is of course a less favorable term of trade. But given Chinese policy makers' strong preference for the former to the latter, the gradual appreciation would be the obvious choice. [In Chapter 7, we will highlight another powerful justification to avoid a sharp appreciation of the renminbi, i.e., China's private holdings of foreign assets was extremely low. Thus, it was dynamically more sensible to maintain a persistent trade surplus until China's public and private holdings of foreign assets reached their desired level. In other words, the proposal of a once-and-for-all major revaluation of renminbi was not optimal in the dynamic sense. As highlighted in Section 1.2, it was likely that such major revaluation would cause coordination failure in the economic system, severe recession and hence political and social instability in China. Thus, the proposal was not even optimal in the static sense.]

2.1.2 A Basket of Currencies with Special Care to the Exchange Rate Against the US Dollar at the Early Stage

The next part of the proposals was on whether the gradual appreciation should be monitored against a basket of currencies or against the US dollar during the transitional reform. While it recommended the Chinese government to declare a shift of the monitoring target towards a basket of currencies, it also highlighted the importance of maintaining at most a moderate appreciation against the US dollar at the early stage (e.g., the first 1–2 years) of the transitional period. This was because the renminbi was fixed against the US dollar before the reform. To avoid any profit from speculation, proper control on the appreciation of the renminbi against the US dollar was necessary. However, at the second stage (e.g., the later years) of the transitional arrangements, China should gradually bring market attention from just the rate against the US dollar back to that against a basket of currencies through speeches by officials. By then, the economy would be better equipped to deal with nominal swings in individual currencies.⁴

⁴ For example, suppose there is a 10% depreciation of Euro against all other currencies, and the weight of Euro in China's basket of currencies is 25%. If China keeps her nominal effective exchange rate unchanged, the renminbi will appreciate against the Euro by 7.5% and

Again, Singapore's successful experience in this aspect was also used to support the argument.

2.1.3 *A Narrow Exchange Rate Band at the Early Stage*

The proposals also highlighted that any exchange rate band at the early stage should be as narrow as possible, mainly because market confidence at this stage would be of utmost importance. A widening of the band without any specific purpose would only weaken confidence and invite unnecessary speculation. However, once the gradual appreciation has been in practice for a few years, the Chinese government could consider a gradual expansion of the adjustable exchange rate band, and prepare itself for the next stage of the reform.

2.2 The Proposed Medium-Term Arrangements

2.2.1 *The Debating Process Before the Medium-Term Recommendation*

For the medium-term and long-term, the related part of the proposals first noted that a fixed exchange rate system might not be the best choice for China.⁵ It also highlighted that the phenomena of herding behavior and exchange rate overshooting could result in undesirable outcomes if China adopted a pure floating regime.⁶ Instead, it recommended more detailed studies of some interesting and desirable features in

depreciate against other currencies by 2.5%. The effect of the latter two will offset each other, leaving China's relative price competitiveness unchanged with the nominal swing of Euro. By automatically offsetting the effect of nominal swings in individual currency with a basket of currencies, the monetary authority's task will be greatly simplified, as the authority will only have to adjust her nominal effective exchange rate with changes in the real sector and the difference between domestic and global inflation rates.

⁵ See Williamson (2007) and Yip (2005) for a summary of the disadvantages of the fixed exchange rate system.

⁶ Frankel and Froot (1986, 1987) explained that herding behavior in the foreign exchange market could lead to huge cycles in foreign exchange rate. The development of exchange rate overshooting models (e.g., Dornbusch, 1976; Kouri, 1976; Calvo and Rodriguez, 1977; Dornbusch and Fischer, 1980; Rodriguez, 1980; Buiters and Miller, 1981 and 1982; and

- (a) the monitoring band system in Singapore; and
- (b) a floating exchange rate system with occasional interventions similar to, but more frequent than that of the US system.⁷

2.2.1.1 *A Spur of China's Interest in Singapore's Exchange Rate System*

The recommendation had resulted in a spur of official interest in Singapore's exchange rate system, and senior officials were sent to Singapore for further understandings of the system in March 2005. In May 2005, there was news reporting that the Chinese authority might adopt an exchange rate system similar to that of Singapore. Under this system, the renminbi would be monitored against a basket of currencies, with an exchange rate band within which the renminbi would be allowed to fluctuate. However, the exact band width and the weight of each currency in the basket would not be disclosed. The aim was to maintain a certain degree of confidentiality so as to increase speculators' difficulties in betting against the monetary authority. Along with this, the Chinese government could adjust the exchange rate band with changes in China's internal economic conditions and global trade environments.

In response to the above proposed design, the author wrote an article expressing his appreciation and concern on the design.⁸ In particular, he emphasized that there were significant differences between Singapore and China. A mere adoption of Singapore's exchange rate system without due regard to these differences could be disastrous. More importantly, long-term arrangements should not dilute or distract the importance of the transitional arrangements. Even if the design was perfect in the long term, problems or mistakes in the transitional arrangements could result in failure of the whole reform.

Mussa (1982) also revealed that exchange rate had turned out to be far more volatile than that assumed by proponents of flexible exchange rate system in the late 1960s or early 1970s (e.g., Johnson, 1969 and Friedman, 1969).

⁷ As explained in Yip (2005), the main purpose of the occasional interventions was to discourage herding behavior when deemed necessary.

⁸ The article was sent to the related authorities. It was also published in major Chinese newspapers in Hong Kong (i.e., *Hong Kong Economic Journal* on 19 May 2005) and Singapore (i.e., *Lianhe Zaobao* on 7 June 2005).

The article first elaborated the advantages of the proposed design, and then discussed its relative importance in the whole reform. It elaborated that the non-disclosure of the currency basket weights and band width had increased the market's information costs and uncertainty in going against the Monetary Authority of Singapore (MAS). Although institutional investors and speculators could roughly estimate the basket weights from Singapore's trade statistics so that the information cost was rather small for them, this information cost was large and even insurmountable for the general public. Meanwhile, MAS's non-disclosure of the band width and flexibility of revising the internal band target would increase the public's uncertainty in joining the speculation during normal circumstances. Even if institutional speculators attempted to mobilize the general public through market reports or rumors, the above information costs and risks to the general public would make it difficult to mobilize the general public under normal circumstances (see Yip, 2005 for more details on the advantages of Singapore's exchange rate system).

2.2.1.2 The Risk of an Immediate Adoption of the Singapore System

However, the situation would be different if the Singapore dollar or the renminbi was believed to be substantially under-valued or over-valued. Under this scenario, the general public's expected return from joining the speculation would easily overcome the hurdle due to the above information costs and uncertainty. Worse still, as long as the general public believed that the return would be greater, they would join the speculation without any need to pay for the information costs. Thus, the information costs and uncertainty for joining the speculation would fall substantially under this extreme condition.

In fact, this is the major difference between Singapore and China that needs to be addressed. As Singapore has adopted the adjustable band system for many years, her current exchange rate is unlikely to be far away from the equilibrium level. As a result, the above mentioned information costs and uncertainty for the general public would be sufficient to discourage speculators from mobilizing the general public to speculate against the monetary authority. However, China had adopted the fixed exchange rate system for many years. Market participants widely believed that its exchange rate

was substantially under-valued. As a result, the expected gain from betting for the renminbi appreciation would be substantial, thus implying the above mentioned information costs and uncertainty would not be able to exert its influence under this extreme condition.

In other words, as the starting levels of exchange rate were different, the mere adoption of Singapore's exchange rate system in China would not be able to stop the renminbi from making substantial appreciation. Once there is a substantial appreciation, the Chinese government's credibility in this aspect will disappear. Under this circumstance, the proposed exchange rate band system would not be able to function properly. Worse still, because of herding behavior and the inclination of extrapolating past trend in the foreign exchange market, the renminbi could eventually over-appreciate, thus laying the seed for economic contraction or even a financial crisis in the future.

Thus, the advantages of the long-term design would not be sufficient to guarantee a successful reform. Appropriate transitional arrangements could sometimes be more important than long-term arrangements. It would also be dangerous for China to let the long-term design dilute the focus of the transitional arrangements and the whole reform.

After expressing the above concern, the article reiterated that the focus of the transitional arrangements should be a target of 1–2% annual appreciation of the renminbi during the early stage of the transitional period. In particular, China should not accept any appreciation that is greater than the transaction costs and risk premium of speculation so as to avoid increased inflows of speculative funds. Neither should China allow any wide or medium exchange rate band, whether disclosed or undisclosed. Otherwise, market force would push the exchange rate to the upper edge of the band, and hence attract enormous speculative inflows. In other words, during the transitional period, the one that could help the exit from a fixed exchange rate system would still be a variant of a fixed exchange rate system. The only difference is that the former would permanently stay at a fixed level of exchange rate (i.e., 8.28 renminbi per US dollar), while the latter would set the appreciation target to 1–2% per annum (with moderate variations along the appreciating path). Nevertheless, this small step would change the market expectation of a permanently fixed exchange rate. The small change would in fact be a big step in the whole exchange rate system reform.

Finally, the article clarified that the author's previous proposals did not recommend the mere adoption of Singapore's exchange rate system even in the long run. In fact, the difference in the degree of openness might imply a very different choice in the long run. For example, as a small open economy with high capital mobility, Singapore has found it more suitable to have an exchange rate targeting while giving up her independent control on money supply (see Teh and Shangmugaratnam, 1992; MAS, 1982/1983 and Yip, 2003). On the other hand, China is a large economy where internal demand can be more important than external demand. As a result, there are advantages for China to have independent control of her money supply. Thus, it is still debatable which long term exchange rate arrangement is most suitable to China.

2.2.1.3 *A Safe and Reversible Roadmap of Reform*

After the above warnings, the proposed design was shelved, or at least held up, for a while. In early July 2005, the author proposed the following roadmap of reform with particular emphasis on the *safety* and *reversibility* of the reform:

- Step 1:* Implement the transitional arrangement discussed in Section 2.1. If everything works well for some years, proceed to Step 2. In case of unexpected adverse developments, stay unchanged or go back to the fixed exchange rate system;
- Step 2:* Gradually widen the exchange rate band to achieve an exchange rate band system similar to that in Singapore.⁹ If everything works well for some years, consider the advantages and disadvantages of proceeding to Step 3. In case of unexpected adverse developments, stay unchanged with the new arrangement or go back to the system in Step 1;
- Step 3:* Gradually widen the exchange rate band in Step 2 towards infinity and proceed towards a floating system with more occasional interventions than that in the US. If everything works well, stay

⁹ As explained in Chapters 4 and 6, there should be a shift towards a NEER monitoring band before a gradual widening of the renminbi-US dollar band.

with this new system. In case of unexpected adverse developments, go back to the system in Step 2.

The transitional arrangement was chosen as the first step because it was the alternative that was most similar to the original fixed exchange rate system. It was the *safest choice* because the only recommended change was a shift from a horizontal path of exchange rate against time to an upward sloping path (i.e., it did not recommend a major or medium jump in exchange rate or widening of exchange rate band at the early stage). On the other hand, as explained earlier, a reasonably large or medium jump in exchange rate or widening of band would attract more speculative inflows, thus creating substantial upward pressure on the renminbi and raising the chance of a reform failure. Because of its similarities with the original fixed exchange rate system, the transitional arrangement was also the *most easily reversible choice*. For example, in case of unexpected adverse developments, it would be easier and less costly for the Chinese authority to retreat to a viable system (i.e., the original fixed exchange rate system) by announcing a change in the expected upward path of exchange rate back to a horizontal one.

The exchange rate band system in Step 2 was recommended because it is a viable system (i.e., exists in Singapore) with crucial features somewhere between the systems in Step 1 and Step 3 (i.e., its similarities with the system in Step 1 is much greater than that between the systems in Step 1 and Step 3). If the system in Step 1 works well for some years, the only major change towards Step 2 would be a gradual widening of the exchange rate band. Compared with the system in Step 3, it is also much more reversible to the system in Step 1 (which would be a viable system if the authority had chosen to move from Step 1 to Step 2). For example, in case of unexpected adverse developments, the Chinese authority could easily retreat to a viable system by narrowing the exchange rate band back to that in Step 1.

In view of external political pressure¹⁰ for some changes away from the fixed exchange rate system at that time, the paper noted that the

¹⁰ Senior officials had reflected that they were not that constrained by external political pressure if they believed that a certain change was risky or undesirable. However, as China might have made implicit agreements in the first half of 2005 for some exchange rate system reform later in the year, there seemed to be a pressure for some changes at that time.

implementation of Step 1 and then Step 2 would take at least a few years. This will give researchers sufficient time to sort out the appropriate long term direction of the exchange rate system reform (see the recommendation discussed in Section 2.2.2). If it is found that the system in Step 3 is the appropriate one for the long run, the Chinese authority can proceed to Step 3 by gradually widening the exchange rate band in Step 2 towards infinity. On the other hand, if it is found that the system in Step 3 will not be the appropriate system for China in the long run, the Chinese authority can stick with the system in Step 2 or move towards a modified system that will be most appropriate for China in the long run.

To further convince the Chinese authority to adopt the above view and proposal, the article drew an analogy between the proposal and the Chinese traditional wisdom of military strategy. According to the traditional military wisdom, moving an army forward or retreating an army is never a simple forward or backward movement of the army. Detailed plans on how to move the army forward or backward step by step, and group by group, are important. This analogy seemed to have raised the authority's trust on the viability of the proposal. On 21 July 2005, a first stage reform package was announced although the long run choice of China's exchange rate system was yet to be sorted out.

2.2.2 *The Medium-Term Recommendation*

To address the above question on the longer term direction of the reform, the author finally solved the problem by publishing a recommendation on 12 September 2005 (i.e., almost two months after the reform on 21 July 2005).¹¹ The article first used the doctrine of Impossible Trinity (e.g., see Krugman and Obstfeld, 2009) to highlight that an economy could only achieve any two goals of the following three: (a) free mobility of capital; (b) stability in exchange rate; and (c) independence in monetary policy. It also used examples of Hong Kong, Singapore and the US to illustrate the issue. For example, with free capital mobility and a fixed exchange rate implicit in its currency board system, Hong Kong has given up the choice of using independent

¹¹ The recommendation was published in the *Hong Kong Economic Journal* on 12 September 2005 and the *Lianhe Zaobao* (Singapore) on 20 October 2005.

monetary policy to fine tune her output (i.e., her quantity of money supply is determined by market demand,¹² and her interest rate has to follow the US rate under normal circumstance, no matter she likes it or not). Another example is Singapore. As capital is also freely mobile, Singapore has to choose between an independent exchange rate policy and an independent monetary policy. As a small open economy, Singapore has chosen to target her exchange rate.¹³ For the US, capital mobility is also high. Meanwhile, the importance of her huge domestic market has dictated the use of independent monetary (or interest rate) policy for the fine tuning of her internal balance.¹⁴ As a result, the US government has chosen to let her exchange rate be determined by market force (i.e., a flexible exchange rate system).

After the elaboration of the doctrine of Impossible Trinity, the article recommended China to opt for an independent monetary policy and independent control of the renminbi along a gradually appreciating path, while maintaining her current level of capital control. This is so because China, similar to the US, is a large economy in which a huge domestic market is crucial to her output determination. Thus, an independent monetary policy is important. Meanwhile, as the renminbi has been widely believed by market participants to be substantially under-valued, a release of the current control on the exchange value of the renminbi can result in substantial appreciation, which can result in severe recession in the Chinese and neighborhood economies.¹⁵ In the worst scenario, this can in turn affect the

¹² With a currency board system, Hong Kong's money supply is demand determined.

¹³ As highlighted in Yip (2005), Singapore has opted for the use of exchange rate policy to influence her internal balance while leaving the external balance as a residual balance. It first explained that the net Central Provident Fund (CPF) contribution in Singapore had resulted in persistent and huge current account (and balance of payment) surplus by ensuring Singapore residents spending less than what they earn. It then noted that the Singapore government was not particularly concerned with the variations in the external balance because the variation was only between a bigger and a smaller surplus.

¹⁴ As a large economy, the US's interest rate decision also influences the world interest rate. This implies an additional advantage for the US to opt for an independent interest rate policy.

¹⁵ If the renminbi were substantially under-valued, it could be dangerous to lift the control and let the market force to search for the equilibrium value of exchange rate. In particular, the economic outcomes of a gradual appreciation to the equilibrium value could be very

political status of the leaders and hence the stability of China. Once the political stability is endangered, it can result in endless turmoil. Thus, avoiding the sharp appreciation of the renminbi and the possibility of political instability are of utmost importance.

If China prefers maintaining an independent monetary policy and avoiding sharp appreciation of the renminbi, she has no choice but to maintain the degree of capital control at that time. Failure to do so will destroy or weaken her ability in achieving the first two objectives.¹⁶ The capital control will of course imply costs such as efficiency loss. However, as there were substantial problems in China's financial system, such as the huge amount of non-performing bank loans and extensive moral hazard activities at that time, further liberalization of the capital control would provide a more lax environment for more extensive moral hazard activities. Furthermore, capital control could be the last defense against the outbreak of financial crises in China in the longer future.¹⁷ Removing the control before a proper clearing of the non-performing bank loans and proper establishment of internal control against the extensive moral hazard activities might not be a wise choice. On the other hand, if China could

different from a substantial appreciation towards the "equilibrium". In the former case, the economic structure and market behavior will have sufficient time to make the required adjustments. On the other hand, a large appreciation in a short period can on one hand cause immediate destructions (say, on exports), and on another hand fail to achieve the substituting expansion (say, on import-substituting production or high value-added exports). In addition, a pre-condition for market force to work is the absence of coordination failure so that market (e.g., price and demand) signals can be transmitted through each sub-market of the economic chains. If agents in one particular part of a chain fail because of a sharp appreciation, agents in the subsequent part of the chain will not receive the right market signals. In such case, the market will not work in the way it is hoped for. In fact, failure of the shock therapy in the Russian economic reform is one good example of the coordination failure.

¹⁶ As there are capital flows through the illegal channels or the abuse of legal channels, China normally needs the help of sterilization to achieve the two objectives. As long as there are sufficient controls on these capital flows so that they lie within the central bank's sterilization capacity, China will be able to monitor her exchange rate and money supply.

¹⁷ Even if there is a plunge in asset price, an effective control will ensure that funds getting out of the related asset will still stay in the economy, thus alleviating the impacts of the plunge in the asset price.

maintain the degree of capital control at that time, she could still continue to develop at the fast growth rate at that time.

In short, if China cannot clear the problems of huge non-performing bank loans and extensive moral hazard activities, she is not qualified to enjoy the benefit of free capital mobility. Rushing for liberalization without the right environment only destroys the growth prospect of China. On the other hand, with a reasonable degree of capital control, China can still grow at relatively fast and stable pace.

Although China has not officially announced the medium- to long-term direction of reform, feedback from senior officials suggests that the Chinese authority has found the above arguments convincing. Baring out unexpected developments in the future, China will probably opt for an independent control of her money supply and good monitoring of her exchange rate along a gradually appreciating path in the medium future (say, next ten years). By then, if the problems of huge non-performing bank loans and extensive moral hazard activities are cleared, China can consider the costs and benefits of moving towards a flexible exchange rate system with occasional interventions.