



ELSEVIER

www.elsevier.com/locate/worlddev

<http://dx.doi.org/10.1016/j.worlddev.2012.03.013>

Is there a Beijing Consensus on International Macroeconomic Policy?

GRAHAM BIRD

Claremont McKenna College, CA, USA
Claremont Graduate University, CA, USA
University of Surrey, UK

ALEX MANDILARAS

University of Surrey, UK

and

HELEN POPPER*

Santa Clara University, CA, USA

Summary.— Some commentators have claimed that there is a growing Beijing Consensus among emerging and developing economies concerning the merits of China's economic policies. Within an analytical framework provided by the well known international policy trilemma, this paper investigates the empirical evidence concerning this claim with specific reference to the adoption of international macroeconomic policies. We find that there are substantial differences between what China does and what is done in other emerging and developing economies. While we discover some regional and inter-temporal variations, there seems to be little or no support for the existence of a Beijing Consensus.

© 2012 Elsevier Ltd. All rights reserved.

Key words — trilemma, China

1. INTRODUCTION

In his 2004 paper, Joshua Cooper Ramo suggested that there was a “Beijing Consensus” throughout the developing world. He argued that the consensus was forming around certain basic guidelines for encouraging economic development modeled on experience in China (Ramo, 2004). However, although the term has been fairly widely used, it has remained ill-defined. Certainly it lacks the greater precision that was used by John Williamson when he introduced the concept of the Washington Consensus. Indeed, Williamson has commented that the Beijing Consensus is in essence simply a perception by those outside China of “what China does” (Williamson, 2010).

With such imprecision it is difficult to reach any rigorous and meaningful evaluation of whether there is or is not a consensus among developing economies about an appropriate development strategy based on the path adopted by China. To test the validity of the implementation of a Beijing Consensus in these terms would require a detailed and specific definition of China's economic policies as well as its political regime, the identification of metrics by which these characteristics can be objectively measured, the collection of data across the developing world relating to these metrics, and the selection of a methodology that captures the proximity of other countries' policies to those adopted in China. We do not undertake such a mammoth exercise in this paper. Instead our ambitions are more limited and modest.

Our focus is on the combination of international macroeconomic policies adopted by emerging and developing countries. Our analytical framework is provided by the well known trilemma or impossible triad, that argues that countries cannot simultaneously have pegged exchange rates, monetary independence, and free capital mobility.¹ The trilemma forces countries to adopt a combination of these characteristics that

is consistent with the constraints it imposes. They will emerge with an outcome which lies somewhere within what is, in effect, a three-dimensional policy space. Thus, one outcome may encompass, for example, only a small degree of exchange rate flexibility, a substantial degree of monetary independence and the use of some capital controls, while another may involve much greater exchange rate flexibility and the free mobility of capital. The detailed possibilities are, in principle, infinite.

The methodology we use in the paper allows us to identify the location of economies within the three-dimensional policy space just described. We first summarize the observed outcome in China. Having established China's outcome, we then estimate the proximity of other emerging and developing economies to this. Do developing countries tend to cluster around what China does or do they deviate from it? Beyond this, do any patterns emerge, with some specific types of developing countries (in terms of regional location or level of development) showing a greater proximity to China than others, and has the degree of proximity changed over time? Our objective in the paper is therefore to test an element of the Beijing Consensus in terms of the realized combinations of international macroeconomic policies adopted by developing and emerging economies.

The paper is organized in the following way. Section 2 provides a further broad but brief discussion of the Beijing Consensus and summarizes the particular interpretation of it that we use for the purposes of our analysis. Section 3 presents, again briefly, our analytical approach, informed by the impossible triad. Section 4 explains our empirical methodology and

* We gratefully acknowledge financial support from the British Academy. Final revision accepted: March 12, 2012.

reports our findings. Robustness checks are reported in Section 5, and a relevant discussion on the role of international reserves and financial liberalization is in Section 6. Finally Section 7, provides a succinct summary and makes a few concluding remarks about the possible evolution of trilemma outcomes for China, in the light of experience in more advanced economies.

2. FROM WASHINGTON TO BEIJING

In the early 1990s, John Williamson claimed that there was a Washington Consensus concerning the design of economic policy. His particular focus was on Latin America and the policies that were being advocated there by the Washington-based international financial institutions; the IMF and the World Bank. Although the phrase has come to be used in different ways by different people, and often in a way that is at odds with Williamson's initial presentation of it, the Washington Consensus is seen as encompassing macroeconomic policies relating to fiscal deficits, monetary expansion and exchange rate policy, microeconomic policy relating to competition policy and the regulation of markets, and policies relating to trade and capital market openness. Key elements involve monetary discipline, tax reform to widen the tax base and increase tax revenue, tight control of public expenditure, with a redirection of it toward areas such as health and education, financial liberalization designed to encourage domestic saving and to raise the marginal efficiency of investment, the elimination of overvalued exchange rates in order to strengthen the current account of the balance of payments and discourage capital flight, trade liberalization designed with the objective of raising domestic economic efficiency and exploiting comparative advantage, encouragement of foreign direct investment as a means of facilitating technology transfer, privatization and deregulation as ways of overcoming the inefficiencies of state monopolies and increasing competition, and the establishment of systems of property rights in order to facilitate the better operation of markets.

In the period since its inception, many claims and counter-claims have been made about the extent to which the Washington Consensus has survived, with assessments often depending on the particular definition favored. A key emerging claim is that in the developing world the Washington Consensus has been replaced by a so-called Beijing Consensus. However, if there were ambiguities in the interpretation of the Washington Consensus, there have been even greater degrees of imprecision about the components of the Beijing Consensus. At the broadest and most inclusive level the Beijing Consensus has been used to describe a situation in which emerging and developing economies have sought to imitate the economic policies pursued in China. At this level, the Beijing Consensus covers the complete array of economic policy and is therefore very comprehensive. More narrowly, the Beijing Consensus is taken to describe the adoption of a development strategy that is built around a gradual move to market liberalization. In this context, it relates more to a "process" than to a particular combination of policies, and a belief that the gradualist approach to economic reform adopted in China is superior to the "big bang" or "shock therapy" approach that has been followed in some other countries in transition.

The "content" and "process" of the Beijing Consensus can, however, be combined. For example, part of the content may be to move toward a flexible exchange rate, but the process may be to do this only very gradually by incrementally or occasionally incorporating a greater degree of flexibility. Sim-

ilarly, part of the content may be to move toward capital account liberalization but with a process that sets out to achieve this in a rather slow and piecemeal fashion. The same observations could be made about the adoption of free markets in general, and even about the democratization of the political system. At any one time, the content of policy may not reflect the final objective that has been set by those in authority since the process may be incomplete. However, with a sufficiently slow acting process of reform, it may appear that the existing status quo is fairly firmly entrenched.

Whatever the claims made by policy makers in China about their intentions, there may be sufficiently little policy action in this direction to allow the dynamics of policy change to be detected. This allows the particular configuration of policy at any one point in time to be presented as "what China does". The idea behind the Beijing Consensus is that a similar policy configuration is to be found across emerging and developing countries.

The existing policy mix in China is certainly inconsistent with key facets of the Washington Consensus. While there might be legitimate debate about whether the design of China's domestic monetary policy and fiscal policy is consistent with the Washington Consensus, there would be considerably less disagreement about China's exchange rate policy and the openness of China's capital account. Even though the Washington Consensus does not directly opt for the superiority of flexible exchange rates, it does advocate avoiding currency misalignment, implying that some degree of exchange rate adjustment may be needed to correct currency overvaluation or undervaluation. Similarly, while not eschewing the use of capital controls in some circumstances, the Washington Consensus favors a move toward capital account liberalization. There is significant evidence to support the claim that China has strongly intervened in the foreign exchange market to maintain a low value for the renminbi (RMB), with the motivation for this being to stimulate export led economic growth. Correspondingly, China has made extensive use of capital controls, with these allowing the Chinese authorities to exercise control over the value of the RMB.

If there is a Beijing Consensus, it would be expected that other emerging economies and developing countries would be found to have adopted similar policies. The empirical section of this paper explores the extent to which they have. Before moving on to this, however, we first characterize the aspects of what China does. Specifically, in the next section, we briefly characterize China's extant policies in the context of the impossible trinity that underlies international macroeconomic policy.

3. AN ANALYTICAL FRAMEWORK

The impossible triad or trilemma claims that countries cannot simultaneously have fixed exchange rates, monetary independence, and free capital mobility. If a country's authorities opt to peg the value of the currency, then either domestic monetary policy needs to be designed to ensure that the domestic rate of interest is close to the global rate in order to remove the incentive for capital to move internationally, or capital controls will be needed to directly prevent or moderate the inflow and outflow of international capital. If a high priority is placed on monetary independence but also on capital mobility, then the message of the trilemma is that a pegged exchange rate will be unsustainable. The trilemma thereby imposes constraints on the design of international macroeconomic policy, and delineates an area of three-dimensional policy space incor-

porating exchange rate stability, financial openness, and monetary independence. Of course, countries may not opt for the extremities within this space, and it is perhaps likely that they will not. There are degrees of currency flexibility. Capital controls can be extensive or minimal. And the domestic rate of interest may deviate a lot or only a little from the global rate. If, as the above discussion suggests, China has opted for a pegged exchange rate with respect to the US dollar, as well as for monetary independence, then it also follows from the trilemma that capital controls would have been in place.

The trilemma further implies a particular pattern of change in terms of the design of international macroeconomic policy. For example, a move toward capital account liberalization will coincide with either the introduction of a greater degree of exchange rate flexibility or a less strong commitment to monetary independence.

In the context of the trilemma, a number of “archetypes” have been suggested to represent the extremes in the feasible policy space. In this framework, the “US” archetype represents the point where monetary autonomy and capital market openness are complete. A “Hong Kong” archetype represents a point with complete exchange rate stability and capital market openness; while the “China” archetype represents complete exchange rate stability, a closed financial system, and monetary independence. Our first empirical challenge is to assess the accuracy of the China archetype by identifying China’s actual location in the three-dimensional policy space delineated by the trilemma. Having established the trilemma outcome for China, we then seek to test the extent to which a Beijing Consensus exists on international macroeconomic policy by examining the proximity of other emerging and developing economies to China. Does the developing world mimic China?

4. A COMPARISON OF INTERNATIONAL MACROECONOMIC POLICY OUTCOMES

(a) *Data and methodology*

In this section we set out to provide a description of the international macroeconomic policies implemented by China in the last 25 years and examine whether other developing and emerging economies have implemented international macroeconomic policies in a similar way. In the context of the trilemma, outlined in the previous section, our focus is on policies related to exchange rate stability (s), financial account openness (f), and monetary sovereignty (m).

Our exchange rate stability measure is that used in Aizenman, Chinn, and Ito (2010). It takes values between zero and one, with higher values indicating higher stability against the currency of the base country. The formula used is

$$s = \frac{0.01}{0.01 + \sigma_{\Delta \log(e)}},$$

where σ is the annual standard deviation of the monthly change in the exchange rate $\Delta \log(e)$. If the monthly exchange rate change is less than ± 0.33 , then a value of one is imposed. (This prevents overstating flexibility when exchange rate policy targets a narrow band.) For more details see Aizenman *et al.* (2010).

As our financial account openness variable, we use the updated financial openness measure of Chinn and Ito (2006). The construction of the measure, which they call *KAOPEN*, takes into account four binary variables reported in the IMF’s *Annual Report on Exchange Arrangements and Exchange Restrictions*. These are: the presence of multiple exchange

rates, restrictions on current account transactions, restrictions on capital account transactions, and the treatment of export proceeds. Higher values of this index indicate greater financial account openness. We normalize their measure to fall between zero and one. For more details see Chinn and Ito (2006).

To derive a measure of monetary policy sovereignty we conjecture that the trilemma constraint holds and that the trade-offs among the policies are linear.² With the exchange rate stability and financial openness measures being constrained in $[0, 1]$ and with countries being unable to pursue all three policies simultaneously, a linear trade-off implies that $m = 2 - s - f$.³ We use this residual measure that derives directly from the trilemma because of its theoretical grounding and its simplicity although we also check for robustness by using another measure of monetary independence.⁴

These three variables form the basis of our analysis. In what follows we look at and compare the international macroeconomic policy outcomes in China, and in developing and emerging economies.⁵ We do this by examining the evolution of the three variables in the trilemma space: exchange rate stability, financial account openness, and monetary sovereignty. In addition, we are interested in the stability of the *combination* of these outcomes. A policy combination is a point in the three-dimensional space defined by s , f , and m . We observe these combinations over time and, hence, we are able to calculate the distance (vector) between subsequent points. This is a measure of stability of the mix of international macroeconomic policies.⁶

As in Popper, Mandilaras, and Bird (2011) we use the Euclidean norm as a way to reduce the dimensionality of the data and encapsulate stability in a single metric. The norm is simply

$$n_{i,t} = \sqrt{(s_{i,t} - s_{i,t-1})^2 + (f_{i,t} - f_{i,t-1})^2 + (m_{i,t} - m_{i,t-1})^2},$$

which we then divide by $\sqrt{2}$ to ensure that the maximum possible value is unity.⁷ Higher values of the norm point to an increase in instability (a greater distance between two subsequent points).

Finally, in addition to the time dimension (stability) of policy combinations we explore the cross country dimension. In other words, we measure the distance between China’s policy combination and the policy combinations in developing and emerging economies. We call this “policy distance” (pd) and use it as a manifestation of how similar or different the mix of exchange rate stability, financial account openness, and monetary sovereignty is between China and its peers. The Euclidean norm is used here too:

$$pd_{i,t} = \sqrt{(s_{\text{china},t} - s_{i,t})^2 + (f_{\text{china},t} - f_{i,t})^2 + (m_{\text{china},t} - m_{i,t})^2},$$

where i is the developing countries group, a regional aggregate or the emerging economies group. Again, we normalize the variable to be between zero and one.

(b) *Policy outcomes in China*

Figure 1 shows the average policy configurations for China, and for developing and emerging countries over the sample. As the figure illustrates, China indeed has been close to its “archetype” of exchange rate stability, monetary sovereignty, and limited financial openness. Over the period 1984–2008, for which we have data, the average values of exchange rate stability, financial openness, and monetary sovereignty are 0.8, 0.12, and 0.93, respectively. In fact, there have been periods when China was perfectly aligned to its archetype with

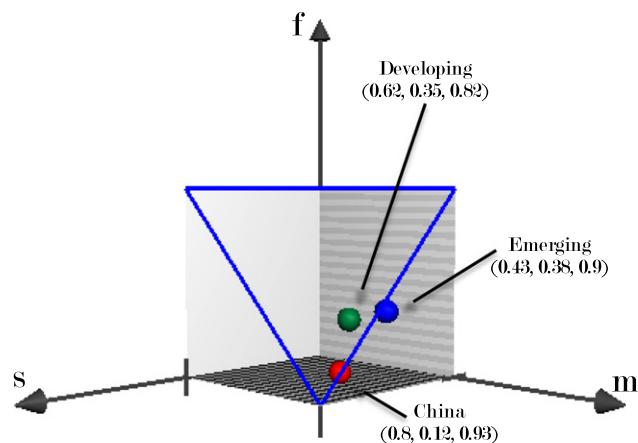


Figure 1. Policy configurations—China, emerging and developing economies.

complete exchange rate stability and a hermetically closed financial account. But, against this overall pattern, there have also been occasional exchange rate shifts and a one-off change in financial account policy. Table 1 shows the mean values for *s*, *f*, and *m*, as well as their maximum and minimum values and standard deviations. The same are reported for *n*, the indicator of overall policy stability as described in the previous section.

Figure 2 illustrates the time variation of the key policies and the overall changes in the trilemma outcome for China and for emerging and developing economies. As shown in the top graph, China's financial account was totally closed between 1987 and 1992. It took on a low value of 0.16 in all other years in the sample period. The exchange rate was perfectly stable between 1987–1990 and 1995–2005. There was a low degree of exchange rate stability before 1987, between 1991–1994, and from 2006 onward. Financial openness has been low, and monetary sovereignty, being a residual measure, has been quite high in all periods. Figure 2 shows that China's variation in exchange rate stability has been much higher than the

Table 1. The trilemma components—descriptive statistics

		Mean	Max.	Min.	St. Dev.	Obs.	H_0
China	<i>s</i>	0.80	1.00	0.08	0.30	25	—
	<i>f</i>	0.12	0.16	0.00	0.07	25	—
	<i>m</i>	0.93	1.00	0.84	0.08	25	—
	<i>n</i>	0.11	0.66	0.00	0.19	24	—
Developing economies	<i>s</i>	0.62	1.00	0.01	0.35	3,018	-29.3***
	<i>f</i>	0.35	1.00	0.00	0.31	2,900	38.8***
	<i>m</i>	0.82	1.00	0.00	0.26	2,854	-21.1***
	<i>n</i>	0.11	0.94	0.00	0.14	2,817	-2.5**
Emerging economies	<i>s</i>	0.43	1.00	0.02	0.25	482	-32.8***
	<i>f</i>	0.38	1.00	0.00	0.32	447	17.0***
	<i>m</i>	0.90	1.00	0.00	0.21	447	-2.7***
	<i>n</i>	0.13	0.88	0.00	0.14	443	2.6**
<i>Regional breakdown of developing economies</i>							
E. Asia and Pac.	<i>s</i>	0.54	1.00	0.02	0.30	410	-17.5***
	<i>f</i>	0.41	1.00	0.00	0.32	367	17.7***
	<i>m</i>	0.84	1.00	0.00	0.28	366	-6.1***
	<i>n</i>	0.12	0.72	0.00	0.14	360	0.8
Eur. and C. Asia	<i>s</i>	0.41	1.00	0.01	0.28	272	-22.7***
	<i>f</i>	0.35	1.00	0.00	0.32	245	11.3***
	<i>m</i>	0.90	1.00	0.00	0.18	228	-2.4**
	<i>n</i>	0.14	0.70	0.00	0.13	213	3.1***
Lat. Amer. and Carib.	<i>s</i>	0.69	1.00	0.01	0.34	723	-8.8***
	<i>f</i>	0.45	1.00	0.00	0.35	719	25.4***
	<i>m</i>	0.72	1.00	0.00	0.32	717	-17.0***
	<i>n</i>	0.12	0.94	0.00	0.17	713	1.8*
Mid. East and N. Africa	<i>s</i>	0.67	1.00	0.01	0.33	291	-7.0***
	<i>f</i>	0.39	1.00	0.00	0.38	283	11.8***
	<i>m</i>	0.75	1.00	0.00	0.38	278	-7.8***
	<i>n</i>	0.10	0.88	0.00	0.15	275	-1.5
S. Asia	<i>s</i>	0.67	1.00	0.04	0.29	197	-6.4***
	<i>f</i>	0.27	1.00	0.00	0.26	191	7.8***
	<i>m</i>	0.89	1.00	0.00	0.25	189	-2.5**
	<i>n</i>	0.12	0.61	0.00	0.14	186	0.3
Sub-Sah. Africa	<i>s</i>	0.62	1.00	0.01	0.37	1,125	-16.2***
	<i>f</i>	0.26	1.00	0.00	0.24	1,095	19.0***
	<i>m</i>	0.88	1.00	0.00	0.14	1,076	-11.3***
	<i>n</i>	0.08	0.76	0.00	0.12	1,070	-7.8***

Notes: The last column reports the value of the *t*-statistic for a test of equality of each region's mean exchange rate stability *s*, financial openness *f*, monetary sovereignty *m* and norm *n* against China's respective means.

*Significance at the 10% level.

**Significance at the 5% level.

***Significance at the 1% level.

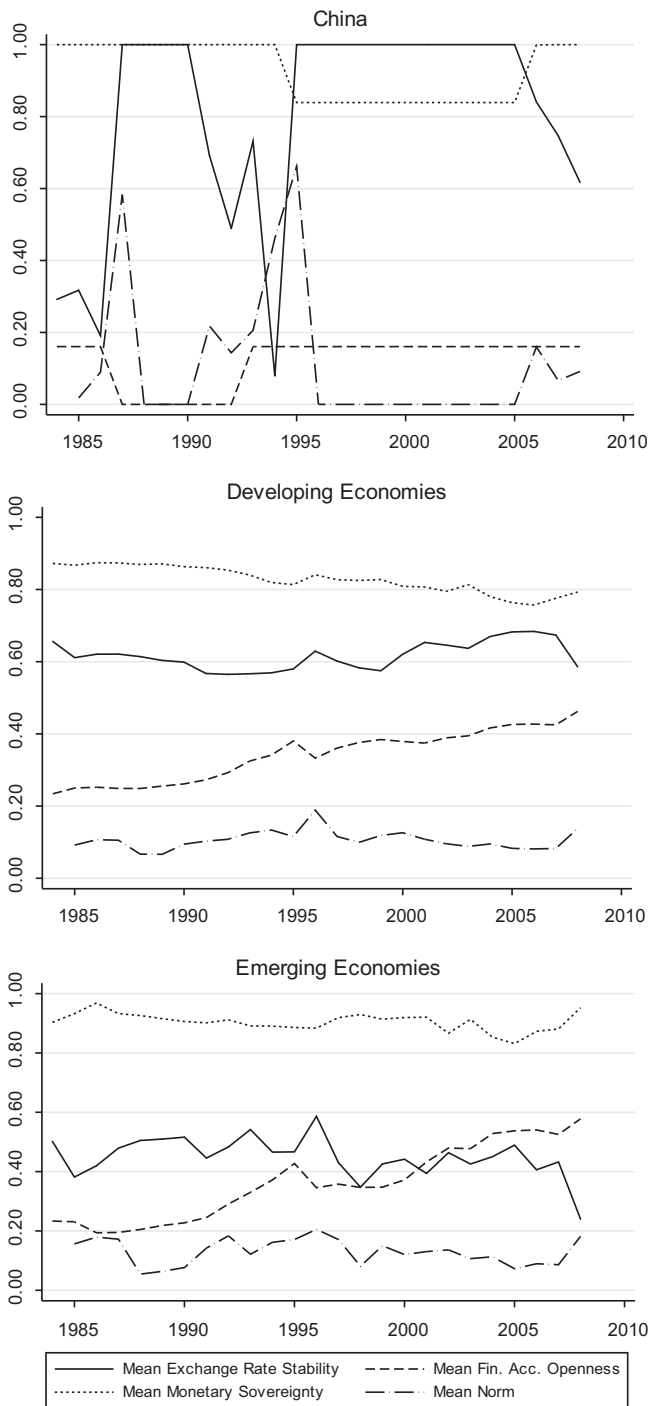


Figure 2. Trilemma policies and stability—China, developing and emerging economies.

individual variation in financial account openness or monetary sovereignty.⁸

Although a degree of instability, however small, may be traced to the exchange rate in China, exchange rate instability is greater in other emerging and developing economies. For these groups the variation in financial openness is also quite high. Because the exchange rate by itself is not a sufficient indicator of changes in a country's policy configuration, it is important to examine the *overall* stability of the set of interna-

tional macroeconomic policies rather than concentrating solely at the exchange rate regime.

We report descriptive statistics of the norm for China, and for emerging and developing economies in Table 1, and we also plot the norm in Figure 2. The norm's maximum value in China (reflecting high overall instability in international macroeconomic policy) was in 1995, after the renminbi's devaluation. Another spike occurred in 1987 and again after 2006, when the RMB was de-pegged from the US dollar. The norm is zero when there are no year-on-year changes in any of its three components. This is the case between 1988–1990 and 1996–2005. Overall, the average value of China's norm during the sample period is 0.11, indicating a generally high degree of international macroeconomic policy stability.

(c) Policy outcomes in developing and emerging economies and their proximity to China

The empirical evidence presented in Figures 1 and 2, as well as in Table 1, shows that on average international macroeconomic policy outcomes in other emerging and developing economies have differed from those exhibited in China. Developing economies have had lower exchange rate stability (0.62) and monetary sovereignty (0.82) but greater financial openness (0.35), while emerging economies other than China have had even lower exchange rate stability (0.43), slightly lower monetary sovereignty (0.9) and greater financial openness (0.38). They are further away from the China archetype and also further away from China's actual policy—see Figure 1. In comparison to China, the variations in financial account openness are of similar magnitude, and those of exchange rate stability higher.⁹

Given that the numbers in the developing country group are averages covering a large number of countries, the patterns over time are smoother than they might be for individual countries with extremes tending to cancel one another out. This is evident in the middle graph in Figure 2. Even so, a clear increase over time in financial account openness can be discerned. The same pattern is present in the emerging group, shown in the bottom graph. As China's degree of openness has not changed in recent years this implies a divergence of financial account policies between China on the one hand and other developing and emerging economies on the other. There does not seem to be a great degree of convergence in exchange rate policies either. On average, developing countries have a greater degree of exchange rate stability than emerging economies, with the trend being flat in the former and slightly negative in the latter.

To provide a more detailed picture of the policy outcomes, we disaggregate the developing country group into six regions; East Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, South Asia, and Sub Saharan Africa. The Latin America and the Caribbean region has the highest degree of exchange rate stability and financial openness. Correspondingly, it has the lowest degree of monetary sovereignty. The Middle East and North Africa, South Asia and Sub Saharan Africa regions all have substantial degrees of exchange rate stability. Sub Saharan Africa also has the lowest average norm value, indicating overall policy stability. This can probably be partly explained by the presence of Communauté Française d'Afrique (CFA) countries.¹⁰

The increase in financial account openness over time is particularly apparent in the Europe and Central Asia, Latin America and Caribbean, and Middle East and North Africa regions—see Figure 3. In contrast, financial account openness was decreasing in East Asia and the Pacific for much of the

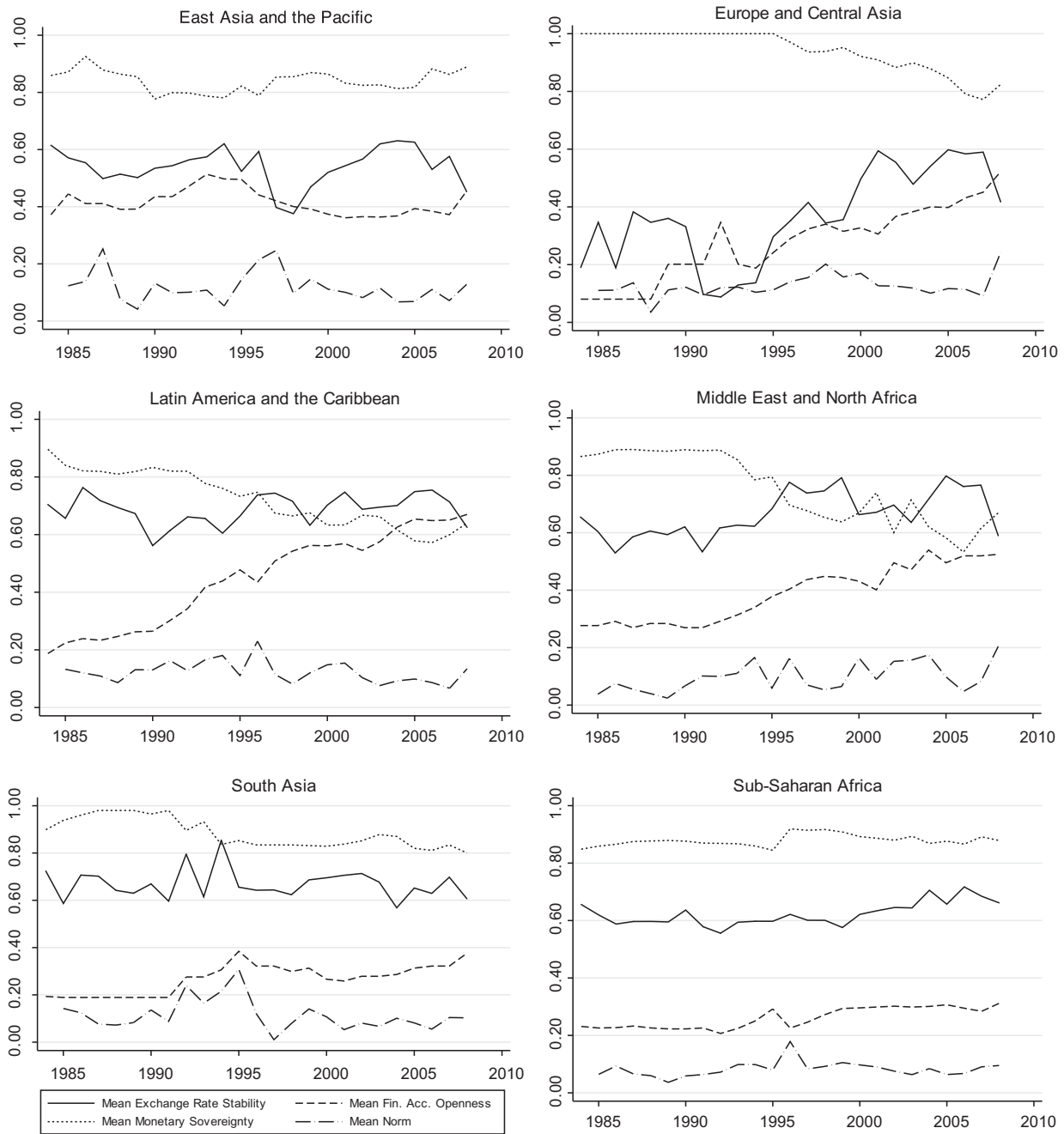


Figure 3. Trilemma policies and stability—the regions.

1990s and early 2000s. From the figure it can also be seen that the Europe and Central Asia region has experienced low exchange rate stability, although this has been increasing since the early 1990s.

The *t*-tests in Table 1 indicate that, for every region and income group, individual policy outcomes in terms of exchange rate stability, financial openness, and monetary sovereignty are statistically different from those of China. In contrast, the mean norms of the South Asia, Middle East and North Africa, and East Asia and the Pacific (excluding China) regions are not statistically different from China’s mean norm. That is, the combinations of policy outcomes have exhibited a similar degree of overall stability. If the Beijing Consensus were to be defined in terms of the stability of overall interna-

tional macroeconomic policy rather than its composition, then these three regions come closest to doing what China does.

(d) China and its peers: “Policy Distance” over time

In this section we further explore the relationship between China’s international macroeconomic policies and those of other developing and emerging economies. Our measure of how policies compare is based on the distances between the outcomes in the policy space, as illustrated for the averages in Figure 1. This can be calculated for each year in our sample by using the Euclidean norm, as outlined in Section (a). Figure 4 plots the policy distance for the developing and emerging groups, and Figure 5 does the same for the separate regions.

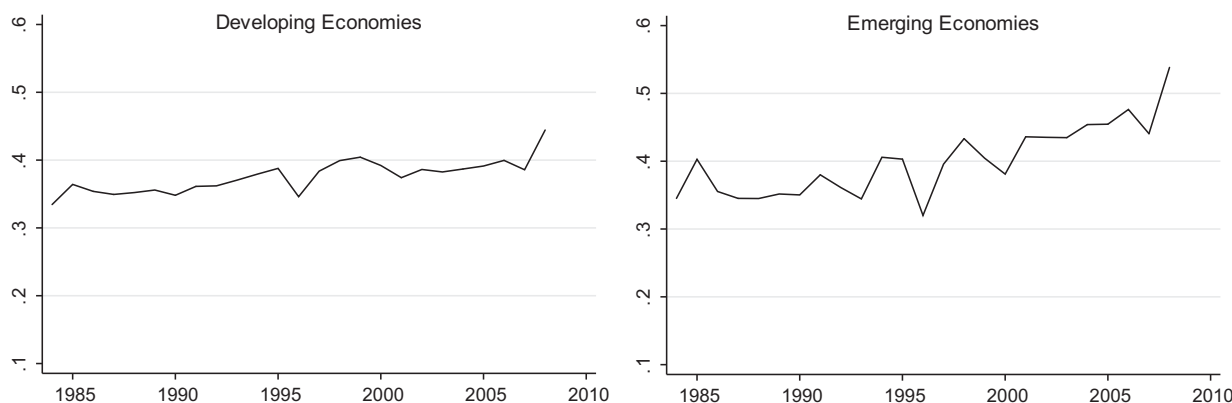


Figure 4. Policy distance from China—developing and emerging economies.

It can be seen from these figures that the distance between international macroeconomic policies in emerging economies and those in China has been on an upward trend. For the overall developing country sample, the increase in the distance is more muted, but the absolute gap between trilemma outcomes is still quite wide. It is also noteworthy that for both emerging economies and for developing countries, there was a sharp increase in the distance from China's policies in 2008, at the end of the sample period.

Figure 5 presents the regional disparities. Taking the entire period, it is only in Sub Saharan Africa that policies appear to be coming closer to those in China. For Latin America and the Caribbean, as well as for the Middle East and North Africa, the distance from China appears to be widening. This is also the case for South Asia, although the absolute gap is smaller in this region.

Furthermore, the figure shows that the distance from China's policies has not uniformly and consistently widened or narrowed. Different time periods show different results. It may be seen, for example, that for East Asia and the Pacific, for Europe and Central Asia, and for South Asia, there was a protracted period prior to the mid-2000s when international macroeconomic policies were becoming more proximate to those in China. However, it also needs to be recalled that such narrowing in trilemma outcomes could have been affected in some years by the changes in China's actual policies relative to the China archetype shown in Figure 2.

Table 2 displays the values of the policy distance measure over four time periods: 1984–1990, 1991–2000, 2001–2008, and 1984–2008.¹¹ We find that the distance between developing countries and China increases 56% from 0.16 in the first period (1984–1990) to 0.25 in the last one (2001–2008). For emerging economies it goes up more steeply from 0.25 in the first period to 0.41 in the last, an increase of 64%.

These results suggest that, consistent with Figure 5, the Latin America and Caribbean, Middle East and North Africa and South Asia regions adopt policy configurations that are increasingly different from China's. Europe and Central Asia appears to be getting closer, but the initial policy distance (in the period 1984–1990) is substantial (the highest compared to all other regional policy distances during the same period). Overall, the South Asia and Sub Saharan Africa regions are closest to China over the entire period.¹²

5. ROBUSTNESS CHECKS

In this section, we discuss the robustness of our results with respect to alternative treatments of monetary policy,

of country weights, and of sample choice. In our gauge of policy distance, monetary autonomy is measured as a residual. This presupposes that we consider the trilemma to be a binding constraint. Empirical tests have not always confirmed this, but the explanation may have more to do with the quality of the available data and measures than with the validity of the trilemma itself. For completeness, we have reproduced our results using Shambaugh's (2004) measure of monetary independence (as implemented in Aizenman *et al.* (2010)), which is based on interest rate correlations and does not rely on the validity of the trilemma. The findings are little changed. Over the entire period, only Latin America and the Caribbean and the Middle East and North Africa regions appear to be closer to China by about 15%, and, as a result, the developing country sample as a whole moves 5% closer to China. For the emerging economies, there is no change in the policy distance.

Next, we check whether the results are influenced by a large number of small countries. Specifically, we weight the distance measures by country size. That is, we divide each country's GDP in US dollars by the total "world" output in US dollars (i.e., the sum of all GDP values in the sample). We find that controlling for country size does not affect the emerging markets' average policy distance, and it increases the distance between China and the developing country sample (0.28 in the weighted results compared to 0.22). This change also shows up in the regional numbers. All regions, other than the Middle East and North Africa are further away, on average, from China's policy configurations.

Finally, we examine whether the policy configurations prevailing during financial crisis incidents affect the results in Table 2. We have replicated the calculations dropping from the sample years associated with a major financial crisis but this makes only a minimal difference to the results we report above.¹³

6. FURTHER DISCUSSION: INTERNATIONAL RESERVES AND FINANCIAL LIBERALIZATION

As is well documented,¹⁴ China and other emerging and developing countries have been increasing their international reserve holdings in recent years, but whereas developing countries doubled their reserves as a percentage of output (from 9% between 1984 and 1990 to 18% in 2001 and 2008), reserves more than quintupled in China. In this policy respect there seems to be a common direction, but the speed between China and the other economies is markedly different. Average levels of international reserves (% GDP) and accumulation rates are provided in Table 3.

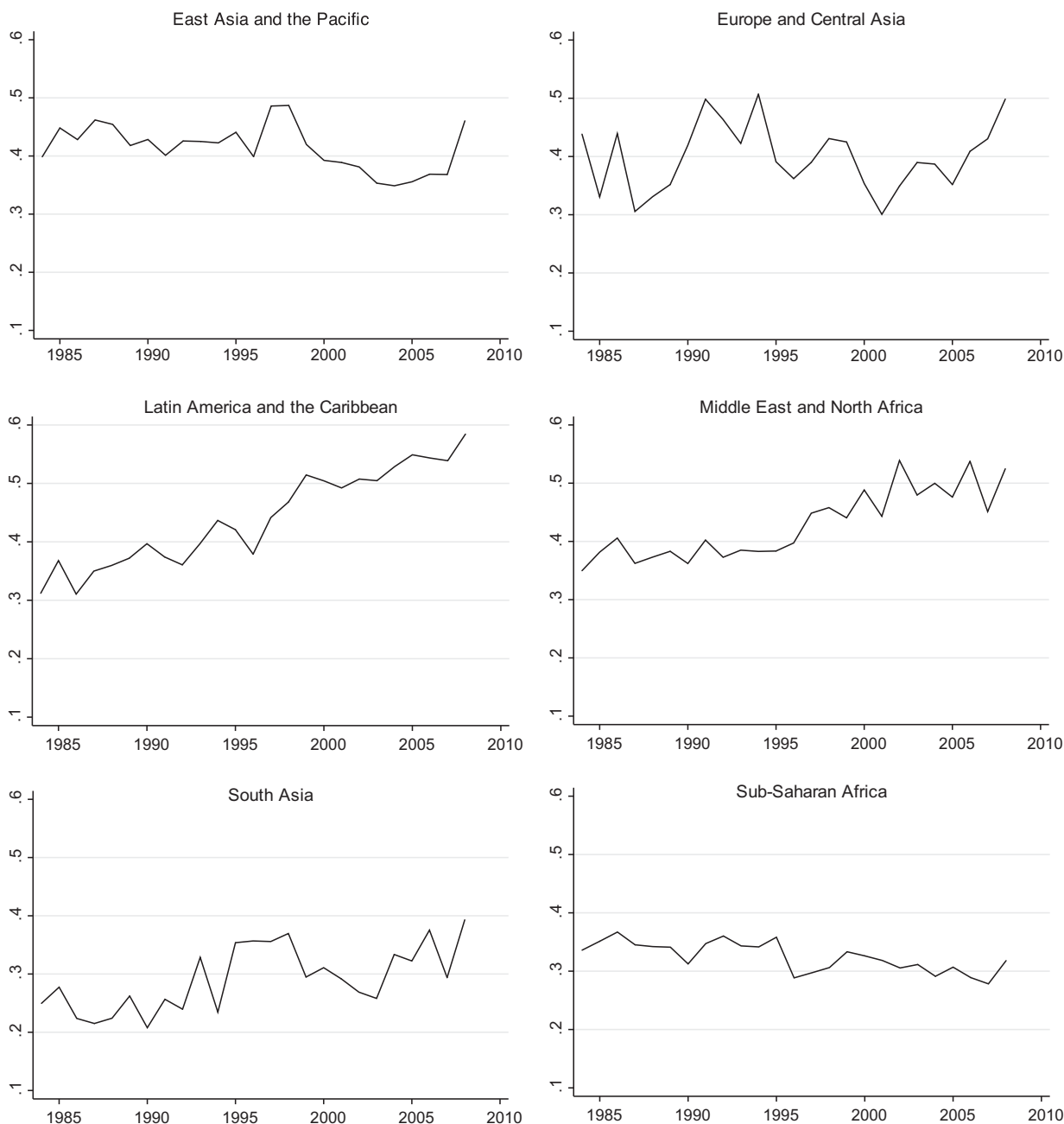


Figure 5. Policy distance from China—the regions.

Table 2. Policy distance from China

	1984–1990	1991–2000	2001–2008	1984–2008
Developing Econ.	0.16	0.23	0.25	0.22
Emerging Econ.	0.25	0.30	0.41	0.32
<i>Regional breakdown of developing economies</i>				
<i>E. Asia and Pac.</i>	0.28	0.31	0.25	0.28
<i>Eur. and C. Asia</i>	0.35	0.37	0.28	0.32
<i>Lat. Amer. and Carib.</i>	0.14	0.29	0.42	0.28
<i>Mid. East and N. Afr.</i>	0.18	0.23	0.34	0.25
<i>S. Asia</i>	0.11	0.15	0.18	0.14
<i>Sub-Sah. Africa</i>	0.16	0.18	0.16	0.16

Notes: Policy distance is a metric revealing the extent of the disparity in policy configurations between an income group (or region) and China. It is measured as $pd_{china,i} = \sqrt{(\bar{s}_{china} - \bar{s}_i)^2 + (\bar{f}_{china} - \bar{f}_i)^2 + (\bar{m}_{china} - \bar{m}_i)^2} / \sqrt{2}$. The numbers reported are group averages.

Table 3. *Other policies: international reserves (res) and financial reform (finr)*

	1984–1990		1991–2000		2001–2008		1984–2008*	
	<i>res</i>	<i>finr</i>	<i>res</i>	<i>finr</i>	<i>res</i>	<i>finr</i>	<i>res</i>	<i>finr</i>
China	0.06 (0.03)	0.06 (0.00)	0.11 (0.05)	0.20 (0.14)	0.33 (0.15)	0.42 (0.06)	0.17 (0.08)	0.20 (0.09)
Dev. Econ.	0.09 (0.05)	0.21 (0.10)	0.13 (0.10)	0.50 (0.11)	0.18 (0.05)	0.68 (0.02)	0.14 (0.07)	0.47 (0.08)
Em. Econ.	0.05 (0.09)	0.33 (0.07)	0.14 (0.12)	0.64 (0.10)	0.20 (-0.02)	0.82 (0.01)	0.14 (0.07)	0.63 (0.07)
<i>Regional breakdown of developing economies</i>								
E. Asia and Pac.	0.16 (0.06)	0.40 (0.08)	0.17 (0.09)	0.55 (0.05)	0.22 (0.02)	0.65 (0.03)	0.18 (0.06)	0.53 (0.05)
Eur. and C. Asia	0.03 (-0.04)	0.33 (0.15)	0.10 (0.30)	0.49 (0.13)	0.16 (0.05)	0.72 (0.03)	0.12 (0.17)	0.56 (0.10)
Lat. Am. and Car.	0.07 (0.05)	0.24 (0.12)	0.11 (0.06)	0.62 (0.10)	0.14 (0.07)	0.75 (0.01)	0.11 (0.05)	0.53 (0.08)
M. East and N. Afr.	0.08 (0.08)	0.21 (0.09)	0.21 (0.07)	0.56 (0.08)	0.39 (0.08)	0.70 (0.00)	0.24 (0.08)	0.48 (0.06)
S. Asia	0.08 (-0.04)	0.13 (0.19)	0.16 (0.09)	0.38 (0.10)	0.21 (0.04)	0.54 (0.04)	0.15 (0.04)	0.34 (0.10)
Sub-Sah. Africa	0.08 (0.14)	0.21 (0.07)	0.11 (0.08)	0.50 (0.10)	0.14 (0.05)	0.67 (0.01)	0.11 (0.07)	0.45 (0.07)

Notes: Values are averages. Mean rates of change over the period are reported in parentheses. Reserves are expressed as % of GDP.

* Data on financial reform are from Abiad *et al.* (2008) and go up to 2005.

It has been claimed that large holdings of international reserves may provide a policymaker with a degree of monetary sovereignty that a binding trilemma constraint does not allow. Aizenman *et al.* (2010) find some evidence to support this idea. If this were true for our sample, we might expect to find a positive correlation between reserves and monetary sovereignty. In fact, we find just the opposite: there is a significant negative correlation that is robust across sub-samples. This negative correlation is consistent with the likelihood that economies operating more flexible exchange rate regimes (and having higher monetary independence as a result) need to hold less reserves compared to countries that fix or heavily manage their currencies. This finding is consistent with a greater reliance on reserves where currencies are fixed or managed, and monetary sovereignty is correspondingly lower.

While this study focuses on the international trilemma, it also is worth taking a look at how China and other countries compare when it comes to financial liberalization in domestic markets. We use Abiad, Tressel, and Detragiache's (2008) database of financial reforms, which contains information on seven aspects of financial sector policy, namely: credit controls and excessively high reserve requirements, interest rate controls, entry barriers, state ownership in the banking sector, capital account restrictions, prudential regulations and supervision of the banking sector, and securities market policy. Abiad *et al.* (2008) generate an overall index of financial reforms for a large set of countries over the period 1973–2005. Using this index we see that financial reform is another dimension in which China is very different. As shown in Table 3, the normalized value (between zero and one) for China in 2001–2005 is 0.42 compared to 0.68 for developing economies and 0.82 for emerging economies.¹⁵

7. CONCLUDING REMARKS

The idea of a Beijing Consensus has been widely discussed but remains ill-defined. To some, it means a consensus among developing countries about an entire range of microeconomic

and macroeconomic policies. To others, it refers to a consensus about the superiority of a gradualist approach to economic reform. To still others, it implies a consensus around the advantages of export led growth and reserve accumulation. It has even been interpreted to mean a consensus around China's proposals for international monetary reform based on the Special Drawing Right.

In this article we have empirically examined one specific and tightly defined aspect of the Beijing Consensus. Within an analytical framework provided by the impossible trinity or trilemma, we have investigated the extent to which developing and emerging economies have adopted a trilemma outcome, in terms of the combination of exchange rate policy, financial openness, and monetary independence, that is close to "what China does". Have emerging and developing economies exhibited a similar combination of international macroeconomic policies to China?

Unsurprisingly, and perhaps reassuringly, we find that China has generally been close to the conventional view of what may be characterized as the "China archetype" of exchange rate stability, closed financial markets, and monetary independence. However, for both the group of emerging economies (excluding China) and developing countries in general, exchange rates have tended to be less stable than in China, and there has been a greater degree of financial openness and less monetary independence. If anything, and for emerging economies in particular, the gap between what they do and what China does has been widening. We also find that there are significant regional disparities, with the greatest proximity to China's international macroeconomic policies being found in Sub Saharan Africa and South Asia. In general, however, the empirical evidence we present suggests that the idea of a Beijing Consensus existing in practice throughout the developing world in terms of exchange rate policy, financial openness, and monetary independence is misplaced, and perhaps increasingly so.

Of course, as China develops, it may itself change what it does in terms of international macroeconomic policy, with these changes leading it further away from the China

archetype. Our data reveal periods of policy change in China, particularly between 1990 and 1996. Advanced economy trilemma configurations generally involve greater exchange rate flexibility and financial openness. The question remains as to whether China will move in this direction, and how far and how fast it will move. It would be unsafe to assume that changes in the trilemma outcome are driven solely, or even largely, by the stage of economic development. Other factors—political, social, and cultural, as well as economic—may exert a significant influence; China may yet exhibit a different pattern of development.

Having said this, if China is committed to establishing the renminbi as an international currency and to having it in-

cluded as part of the basket of currencies upon which the Special Drawing Right is valued—and there are some indications that it is so committed—there will be pressures on China to change what it does in terms of international macroeconomic policy. In these circumstances, a time may arrive when not even China subscribes to the contemporary notion of the Beijing Consensus. For the time being, and for the short to medium future, however, what China does in terms of international macroeconomic policy seems to differ significantly from what is done in the rest of the developing world. The “China archetype” offers an apt description of what China currently does, but not of what other emerging and developing countries do.

NOTES

1. See Mundell (1963). The term *trilemma* was first coined in Obstfeld and Taylor (1997).
2. Obstfeld, Shambaugh, and Taylor (2005) provide evidence that the trilemma is “borne out by history” using more than 130 years of data. Others have argued that there could be slender monetary sovereignty under a floating rate—see Calvo and Reinhart (2002).
3. In practice, some countries do not take advantage of the full extent of exchange rate stability, financial openness, and monetary sovereignty that might be achievable—that is, in some cases, the trilemma does not bind. Indeed, some countries have such low levels of exchange rate stability and financial openness (s and f) that, by simple arithmetic, the implicit measure of monetary sovereignty might exceed one. Because a value of one indicates complete monetary sovereignty, we truncate the monetary sovereignty measure at one.
4. Other measures that have been frequently used in the literature are based on interest rate correlations between a home and a base country—see Shambaugh (2004). Such measures unfortunately conflate monetary dependence with a high incidence of shocks that are common to both countries.
5. Developing economies are those classified as lower income or middle income (excluding China) by the World Bank using 2009 data. Emerging economies are these in the Morgan Stanley Capital International emerging markets index (again excluding China).
6. As mentioned in Section 3, countries can choose “intermediate” policies, i.e., they can partially meet each objective and do not necessarily have to choose corner solutions. Indeed, the data show that this intermediate case is in the overwhelming majority.
7. From the Pythagorean theorem, the maximum distance between two points in a three-dimensional space where each coordinate can assume a maximum value of one is $\sqrt{2}$.
8. Glick and Hutchison (2009) report that, in recent years, China has been facing “large and growing” international capital flows, especially foreign direct investment. They investigate the implications of the trilemma for domestic inflation.
9. Note that the reported standard deviations are not the average of the countries’ standard deviations of financial openness in each sample, but rather the standard deviation of all observations pooled together. The average standard deviation is lower than the number reported but still substantially higher than China’s: twice larger in developing economies (0.154) and three times larger in emerging economies (0.213).
10. Since independence from France, Spain and Portugal CFA stands for Communauté Financière Africaine or Coopération Financière en Afrique centrale, depending on whether the CFA franc is West African or Central African.
11. The policy distance measure is calculated at the means of s , f , and m , i.e., the formula is $pd_{china,i} = \frac{\sqrt{(\bar{s}_{china} - \bar{s}_i)^2 + (\bar{f}_{china} - \bar{f}_i)^2 + (\bar{m}_{china} - \bar{m}_i)^2}}{\sqrt{(\bar{s}_{china} - \bar{s}_i)^2 + (\bar{f}_{china} - \bar{f}_i)^2 + (\bar{m}_{china} - \bar{m}_i)^2}}$, normalized to be between zero and one.
12. Values of the policy distance measure for individual countries are not provided in this paper but are available from the authors.
13. The crisis years that we considered are 1994 (Mexico), 1997 (Southeast Asia), 2002 (Argentina) and 2008 (banking crisis).
14. See, e.g., Aizenman (2008).
15. While the IMF in its latest country report on China (2011) states that the country has made “considerable progress” on bank commercialization, regulation and supervision, fixed income, and financial centers, the relevant numbers are lower for China in all dimensions of financial liberalization.

REFERENCES

- Abiad, A., Tressel, T., & Detragiache, E. (2008). A new database of financial reforms. IMF Working Papers 08/266, International Monetary Fund.
- Aizenman, J. (2008). Large hoarding of international reserves and the emerging global economic architecture. *Manchester School*, 76(5), 487–503.
- Aizenman, J., Chinn, M. D., & Ito, H. (2010). The emerging global financial architecture: Tracing and evaluating new patterns of the trilemma configuration. *Journal of International Money and Finance*, 29(4), 615–641.
- Calvo, G. A., & Reinhart, C. M. (2002). Fear of floating. *The Quarterly Journal of Economics*, 117(2), 379–408.
- Chinn, M., & Ito, H. (2006). What matters for financial development? Capital controls, institutions, and interactions. *Journal of Development Economics*, 81(1), 163–192.
- Glick, R., & Hutchison, M. (2009). Navigating the trilemma: Capital flows and monetary policy in China. *Journal of Asian Economics*, 20(3), 205–224.
- IMF (2011). People’s Republic of China. Country Report 11/92, International Monetary Fund.

- Mundell, R. A. (1963). Capital mobility and stabilization policy under fixed and flexible exchange rates. *The Canadian Journal of Economics and Political Science*, 29(4), 475–485.
- Obstfeld, M., & Taylor, A. M. (1997). The great depression as a watershed: International capital mobility over the long run. Tech. Rep. 1633, C.E.P.R. Discussion Papers.
- Obstfeld, M., Shambaugh, J. C., & Taylor, A. M. (2005). The trilemma in history: Tradeoffs among exchange rates, monetary policies, and capital mobility. *The Review of Economics and Statistics*, 87(3), 423–438.
- Popper, H., Mandilaras, A., & Bird, G. (2011). Trilemma stability and international macroeconomic archetypes in developing economies. Department of Economics Discussion Papers 0311, Department of Economics, University of Surrey.
- Ramo, J. C. (2004). The Beijing consensus, The Foreign Policy Centre. Available from <http://fpc.org.uk/publications/thebeijingconsensus>.
- Shambaugh, J. C. (2004). The effect of fixed exchange rates on monetary policy. *Quarterly Journal of Economics*, 119(1), 300–351.
- Williamson, J. (2010). IIE's Williamson: There is no 'Beijing Consensus'. Interview Available from <http://ipezone.blogspot.com/2010/11/>.

Available online at www.sciencedirect.com

SciVerse ScienceDirect