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The Economist explains economics

What is the impossible trinity?

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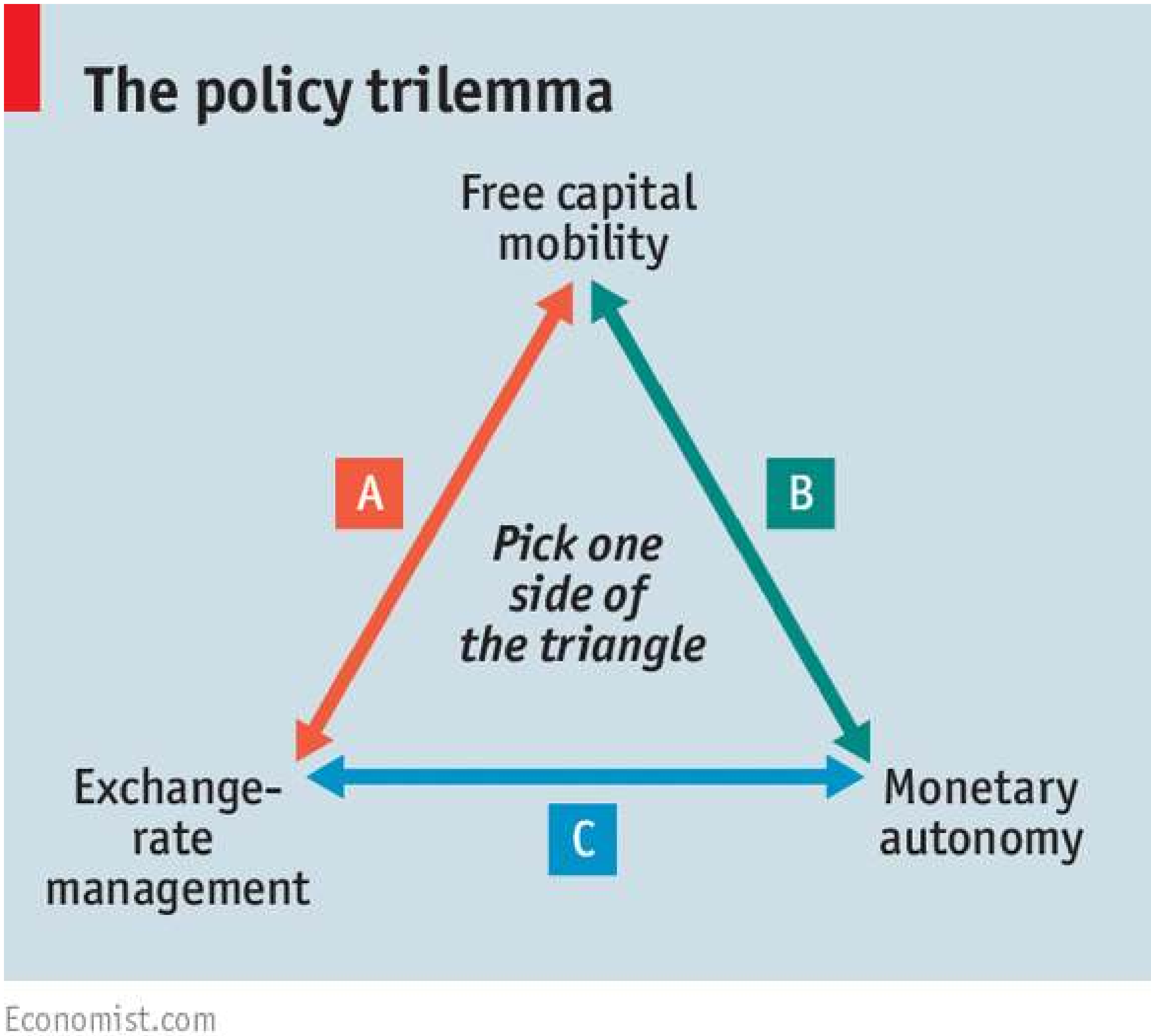
This week "The Economist explains" is given over to economics. Today's is the last in a series of six explainers on a seminal idea.

IN THE run-up to the launch of the euro, in 1999, aspiring members pegged their currencies to the German mark. As a consequence they were obliged to shadow the Bundesbank's monetary policy. For some countries, this monetary serfdom was tolerable because their industries were closely tied to Germany's, and business conditions rose and fell in tandem. But some countries could not live with it. Britain had been forced to abandon its currency peg with Germany, in 1992, because it was in recession even as Germany enjoyed a boom. In the present day, China faces a related conundrum. It would like to open itself fully to capital flows in order to create a modern financial system, in which market forces play a bigger role. Last summer it took some small steps towards that end. But doing so at a time of sluggish economic growth raised fears that the yuan would dive. As markets panicked, China's capital controls were swiftly tightened.

Both predicaments were a consequence of the macroeconomic policy trilemma, also called the impossible trinity. It says a country must choose between free capital mobility, exchange-rate management and an independent monetary policy. Only two of the three are possible. A country that wishes to fix the value of its currency and also have an interest-rate policy that is free from outside influence cannot allow capital to flow freely across its borders. That was China's trilemma. If the exchange rate is fixed but the country is open to cross-border capital flows, it cannot have an independent monetary policy. That was Britain's trilemma. And if a country chooses free capital mobility and wants monetary autonomy, it has to allow its currency to float. That is the two-from-three combination that most modern



economies choose.

To understand the trilemma, imagine a country that fixes its exchange rate against the American dollar and is open to foreign capital. If in order to bring down inflation its central bank sets interest rates above those set by the Federal Reserve, this would attract foreign capital in search of higher returns. That would in turn put upward pressure on the local currency. Eventually the peg with the dollar would break. Equally, if interest rates are cut below the federal funds rate, the exchange rate would fall as capital left to seek higher returns in America.

Many emerging markets find that tying the exchange rate to a stable monetary anchor, such as the dollar, can be useful. It is a speedy way to show a serious intent to control inflation, for instance. Indeed this was also the reason why Britain tied itself to the D-mark in the early 1990s. The cost is a loss of monetary independence: interest-rate policy is subordinated to maintaining the peg and so cannot be used flexibly to stabilise the economy. That is why countries are generally advised to float their currencies once they have demonstrated a commitment to low inflation. That way, the currency adjusts to the waxing and waning of capital flows, allowing interest rates to respond to the domestic business cycle. In practice, many emerging markets are fearful of letting the exchange rate move sharply, so they choose to sacrifice either free capital mobility (by introducing capital controls, or by adding to or depleting their foreign-currency reserves) or monetary independence, by giving priority to currency stability over other targets. China wants eventually to liberalise its capital account as a stepping stone to a modern financial system. To do so, it will have to live with a volatile yuan. Three out of three ain't possible, but two out of three ain't bad.

Previously in this series

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Thursday: The Keynesian multiplier (http://www.economist.com/blogs/economist-explains/2016/09/economist-explains-economics-3) Friday: Minsky's financial cycle (http://www.economist.com/blogs/economist-explains/2016/09/economist-explains-economics-2)

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