

# Macroeconomics in the developing world: Major observations

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Research on macroeconomic policies in countries of the Global South developed from a workshop on 15 November 2018 organised by the Dialogue of Civilizations Research Institute (DOC) in Berlin into the production of a recent book (Chowdhury and Popov, 2019). The research aimed to analyse the kind of macroeconomic policies that are more conducive to growth in developing countries and arose from the following key observations:

1. Insufficient government spending on public goods such as education, healthcare, infrastructure, law and order, and administration can lead to a collapse of output. This happened in post-communist countries during the transformational recession of the 1990s.
2. Reductions in tax progressivity and social public spending contribute to a rise in inequality.
3. Low inflation policy tends to suppress output growth, and in developing countries central bank independence contributes to lower inflation, but at the expense of growth.
4. Countries with flexible monetary policy manage adverse supply shocks better, especially if wage and price rigidities exist.
5. Exchange rate undervaluation through the accumulation of foreign exchange reserves promotes export-oriented growth in developing countries because exports-to-GDP ratios in these countries are generally below optimal levels.
6. Macroeconomic policies need to be nuanced, instead of 'one-size-fits-all', to suit country-specific circumstances.

Sustained high economic growth is necessary to reduce poverty. But as the World Bank noted after reviewing the experiences of the 1990s, "In dealing with growth processes,

economists have no formula. They have broad principles and tools—in the same way that principles and tools can be used to build an airplane. If those are not appropriately put to use, the airplane may not fly, or may not weather storms well. The manner and sequence in which economic principles and tools are used will determine whether specific growth country strategies will succeed or not” (World Bank, 2005, p. xii).

“Each country has specific characteristics and historical experiences that must be reflected in its growth strategy” (Growth Commission, 2008, p. 2). Thus, there cannot be a ‘one-size-fits-all’ growth strategy for all countries at all times. Some countries have looked inward, competing with imports on the domestic market. In some countries, these strategies have succeeded in spurring investment, increasing the size and efficiency of domestic producers. They have also avoided the risks and dislocations of opening up to foreign competition too abruptly. They have eventually opened up to compete internationally and done so successfully.

Others have adopted an outward-looking approach and are more open to and integrated with the world economy. This has allowed them to import ideas, technologies, and knowhow from the rest of the world, which are vital for sustained high growth.

On the other hand, there are also examples of failure for both inward and outward-oriented economies. While some inward-oriented economies increasingly became inefficient and burdened with rent-seeking activities, some outward-oriented economies became more vulnerable to external shocks and financial crises. Pace and sequences of policy implementation play a critical role, as has been demonstrated by the experiences of economies in transition, such as the former Soviet republics, Eastern European former socialist countries, and reforming Asian countries, including China and Vietnam.

Further complications arise when development is defined as ‘growth plus change’ and ‘shared prosperity’. That is, growth must accompany structural change and should be inclusive. Finally, growth needs to ensure intergenerational equity and environmental

sustainability. None of these necessarily accompany the growth process. Ironically, the growth process can harm both equity and the environment. Therefore, designing growth strategies, in particular macroeconomic policies, for shared prosperity and structural change is a challenging task.

## 1. Background

The growth experience of Southern countries since the 1980s has been varied and less spectacular than in the 1960s and the 1970s.<sup>1</sup> During the first United Nations Development Decade (1961-1970), most developing countries either achieved or exceeded the growth target of 5% per annum before the end of the decade.<sup>2</sup> Between 1961 and 1973, developing countries as a group grew at 6% per annum, higher than the world average of 5.4% and the developed country average of 5%.<sup>3</sup>

However, the average growth rate declined during 1974-1979 to 5.2% per annum, as the world economy experienced unprecedented shocks such as the collapse of the Bretton Woods system in 1971 and the two oil price hikes in 1973 and 1979. While industrial countries suffered from the twin crises of high unemployment and inflation (referred to as

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<sup>1</sup> Reviewing the performance of developing countries over 25 years (1950-1975), the *World Development Report 1978* (World Bank, 1978) noted, "The developing countries have grown impressively over the past 25 years: income per person has increased by almost 3 per cent a year, with the annual growth rate accelerating from about 2 per cent in the 1950s to 3.4 per cent in the 1960s ... Moreover, it compared extremely favourably with growth rates achieved by the now developed countries over the period of their industrialization: income per person grew less than 2 per cent a year in most of the industrialized nations of the West over the 100 years of industrialization (p. 3)". The Report also noted, "The Progress made by developing countries is more impressive considering that their populations have been growing at historically unprecedented rates. During 1950-1975, their total population increased at 2.4 per cent a year. This is substantially faster than the population growth rates—typically about 1 per cent a year—that the now developed countries had to contend with during the period of their industrialization (pp. 4-5)".

<sup>2</sup> By 1967, about 47% of developing countries had exceeded the 5% growth-rate target and a further 12% were within 1% of achieving it. African countries grew 4.1% on average during the decade, lower than the 5.9% average in Asia. In the western hemisphere, about half the countries registered a growth rate in the middle range of 3-6%, one quarter had a lower rate, and one quarter had a higher rate. See United Nations (1971, p. 9).

<sup>3</sup> The oil-exporting developing countries grew at 7.5% and the non-oil-exporting developing countries grew at 5.4% (United Nations, 1980, Table II-1, p. 14).

“stagflation”), most non-oil-exporting developing countries faced balance-of-payments problems. The situation for Southern countries deteriorated in the 1980s with the sudden steep rise in interest rates, especially in the US and the UK, which led to the ‘fight inflation first’ policy, plunging many into debt crises.

Many Southern countries were thus forced to seek support from the International Monetary Fund (IMF) and the World Bank, which had by then become influenced by the ‘neo-classical counter revolution’ against Keynesian economics in general and development economics in particular. As conditions for support, they imposed liberalisation, privatisation, and deregulation policies with macroeconomic stabilisation at the core, which together came to be known as the Washington Consensus.

Unfortunately, the one-size-fits-all policy prescriptions of the IMF and the World Bank failed to produce the promised long-term gain of higher growth, despite the harsh pains of adjustment. The 1980s and the 1990s have been described as the “lost decades” for Latin America and Africa (see Easterly, 2001). In sombre words, the former president of the World Bank, James Wolfensohn, acknowledged the failure of the Washington Consensus before his retirement: “... if we take a closer look, we see something else – something alarming. In developing countries, excluding China, at least 100 million more people are living in poverty today than a decade ago. And the gap between rich and poor yawns wider.”<sup>4</sup>

The failure of the Washington Consensus macroeconomic policy framework was also admitted by the World Bank itself:

“Macroeconomic policies improved in a majority of developing countries in the 1990s, but the expected growth benefits failed to materialize, at least to the extent that many observers had forecast. In addition, a series of financial crises severely depressed growth and worsened poverty [ . . . ] [B]oth slow growth and multiple crises were symptoms of deficiencies in the design and execution of the pro-growth reform

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<sup>4</sup> Foreword in Thomas et al. (2000).

strategies that were adopted in the 1990s with macroeconomic stability as their centerpiece” (World Bank, 2005, p. 95).

Some, including the IMF and the World Bank, have attributed this failure not to the macroeconomic policy design per se, but to the quality of institutions prevailing in the countries where these policies were implemented. They thus advocate institutional reforms such as central bank independence and fiscal rules to ensure the proper conduct of macroeconomic policy without having to rely on the ‘quality’ of decision makers. But such approaches are now questioned, even within the research department of the IMF, especially in the wake of the 2008-2009 global financial crisis (GFC), as they are seen to make macroeconomic policies pro-cyclical.<sup>5</sup>

But a few others conclude that macroeconomic policies do not matter. They point to a body of econometric analyses where the significance of key economic policy variables such as inflation or government size disappears if the quality of institutions is accounted for. Thus, they claim that even within a given institutional setting, different macroeconomic policies do not have a significant effect on growth.<sup>6</sup>

Nevertheless, a majority of researchers, including members of the World Bank’s Growth Commission, headed by Nobel Laureate Michael Spence, believe the fault lies in too narrow a definition of macroeconomic stability, e.g., in terms of low, single-digit inflation, usually not exceeding 5%. For example, while the Growth Commission notes that very high inflation is damaging to investment and growth, it remains circumspect about the “how high is very high?” question and acknowledges that some countries have grown for long periods with persistent inflation of 15–30% (Growth Commission, 2008, p. 53). It also notes that the

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<sup>5</sup> See the IMF’s symposium series, ‘Rethinking Macroeconomics’.

<sup>6</sup> As Easterly (2004) puts it, “the evidence suggests that macroeconomic policies do not have a significant impact on economic development after accounting for the impact of institutions.” Also see Acemoglu et al. (2003).

issue of central bank independence is more complicated in developing countries. It highlights the importance of maintaining a coherent economic strategy as “high-speed growth relies on export growth and a rapid integration into the global economy. That process is affected by exchange rates, interest rates, and inflation. Thus the central bank’s choices in all three areas bear heavily on the implementation of a growth strategy. Judgment is required to balance the benefits of autonomy and the need for coherence” (Growth Commission, 2008, p. 53).

The United Nations has always raised concerns about the development outcomes of the Washington Consensus framework of adjustment in general and macroeconomic policies in particular. While admitting the need for adjustment, it emphasised the human and social costs of a rigid definition of macroeconomic stability.<sup>7</sup> UNICEF challenged the moral foundations of the Washington Consensus and argued forcefully that to “balance budgets by unbalancing the lives of the people” is short-sighted and wrong.<sup>8</sup> The UNDP’s Human Development Report of 1990 boldly declared, “People cannot be reduced to a single dimension as economic creatures” (p. iii), and powerfully argued that the purpose of development is to offer people more options.

Thus, the UN Secretary-General’s report for the 2010 MDGs Summit noted (para 50):

“Forward-looking macroeconomic policies are needed to safeguard the sustainability of public investment strategies in support of broad-based growth and the achievement of the Millennium Development Goals. Macroeconomic policies should not focus narrowly on debt stabilization and curbing inflation, but should ultimately be

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<sup>7</sup> See the UN’s flagship publications in the 1980s and 1990s, such as *World Economic Survey* and *Report on World Social Situation*.

<sup>8</sup> See Cornia, Jolly, and Stewart (1987).

supportive of growth of real output and employment. It is often necessary, therefore, to relax unnecessarily stringent fiscal and monetary restrictions and to use countercyclical fiscal and monetary policies to boost employment and incomes and to minimize the impact of external and other shocks on poverty”.<sup>9</sup>

Countries have therefore committed to adopting “forward-looking, macroeconomic policies that promote sustainable development and lead to sustained, inclusive and equitable economic growth, increase productive employment opportunities and promote agricultural and industrial development” (para 23b, 70b).<sup>10</sup> Countries also reiterated the importance of forward-looking macroeconomic policies at the 2012 Rio+20 UN Conference for sustainable development.<sup>11</sup>

In adopting the 2030 Agenda for Sustainable Development, countries have emphasised the need for development-oriented macroeconomic policies to support sustainable structural transformation and inclusive growth. They have also recognised the importance of universal social protection in addressing economic insecurity and inequality, which can harm growth itself.

## **2. Key observations**

### **2.1 Fiscal policy**

Insufficient government spending on public goods such as education, healthcare, infrastructure, law and order, and administration can lead to a collapse of output. This in fact

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<sup>9</sup> UN Secretary-General’s Report: “Keeping the promise: a forward-looking review to promote an agreed action agenda to achieve the Millennium Development Goals by 2015”, A/64/665

<sup>10</sup> Outcome document of the 2010 MDGs Summit: “Keeping the promise: united to achieve the Millennium Development Goals”, A/65/L.1

<sup>11</sup> See the outcome document, para 150. A/CONF.216/L.1

happened in Latin America and Africa in the 1980s and the 1990s (see Easterly, 2001) and in transition economies in the 1990s (see Popov, 2012).

The argument here is not about the optimal size of the state, which is a widely discussed issue in economics. This is about deep cuts in government spending, especially in key social programmes at a time when people need them most. Such cuts tragically result in higher unemployment, poverty, malnutrition, and child mortality, as seen in recent years due to severe austerity measures in the wake of the 2008-2009 Great Recession. Stuckler and Basu (2013) have gathered historical data from around the globe to show how government policy becomes a matter of life and death during financial crises. In a series of historical case studies stretching from 1930s America, to Russia and Indonesia in the 1990s, to present-day Greece, Britain, Spain, and the US, Stuckler and Basu reveal that governmental mismanagement of financial strife has resulted in a grim array of human tragedies, from suicides to HIV infections. They, thus, argue that public wellbeing need not be sacrificed for fiscal health.

The dismantling of the state that occurred in Russia and some other former Soviet republics in such a short period of time in the early 1990s was unprecedented in economic history. If the indicator of change in the share of state expenditure in GDP is added into regressions explaining output change during transition, it remains statistically significant even after factoring in conventional variables like initial conditions (per capita GDP before transition, distortions in the industrial structure and in trade patterns inherited from central planning), the impact of wars, and macroeconomic stability (see Popov, 2000, 2004, 2007).

In general, from all points of view, the dynamics of government expenditure during transition seem to have been far more important a factor in successful transformation than the speed of reforms. Keeping the government big does not guarantee favourable output dynamics, since government spending has to be efficient as well. However, the sharp decline in government spending, especially for the 'ordinary government', is a sure recipe

for the collapse of institutions and a fall in output, accompanied by growing social inequalities and populist policies.

When real government expenditure falls by 50% or more – as happened in most Commonwealth of Independent States (CIS) countries and Southeast European states in just several years, there is practically no chance to compensate the decreased volume of financing through increased efficiency of institutions. As a result, the ability of the state to enforce contracts and property rights, to fight criminalisation and to ensure law and order falls dramatically. Simply put, if crime, income inequality, poverty, and corruption are on the rise, the state needs more money, not less, to bring these unfavourable developments to a halt.

China seems to be an exception to this rule, since whilst there was no transformational recession, the share of government spending in GDP fell from 35% in 1978 to 13% in the mid-1990s. However, firstly, the major decrease occurred in the second half of the 1980s, whereas in the first stage of transition government spending grew pretty much in line with GDP. Secondly, the decrease in the share of state expenditure was a controlled process, i.e., it occurred due to the initiative of the government itself, not despite its efforts. And thirdly, expenditure for ‘ordinary government’ – excluding subsidies, investment, and defence spending – grew in line with GDP. Finally, since 1995, the share of state expenditure in GDP in China has increased; for example, it had risen to about 20% by 2010.

## **2.2 Monetary policy**

For many developing countries with rigid prices and wages, moderate inflation is often caused by cost push factors, i.e., adverse supply shocks. Hence, inflation-targeting in these countries often needs an excessively tight policy putting constraints on output growth.

It looks like the negative relationship between inflation and growth effectively only exists when inflation exceeds several dozen percent a year. But if inflation runs at a level of 20-25% or below, the relationship between growth and inflation becomes positive, as shown by a normal Phillips curve: a negative relationship between inflation and unemployment. The theoretical foundations for this non-linear link have been extensively studied in the literature since Bruno and Easterly's 1996 paper,<sup>12</sup> and the presence of these non-linearities in transition economies is documented in numerous papers.<sup>13</sup>

### **2.3 Central bank independence and growth**

One motivation for central bank independence (CBI) is that policy delegation helps politicians manage diverse coalitions (Crowe and Meade, 2008). This, in turn, should free monetary policy from political pressure to finance growth-inhibiting populist programmes. Many studies report a negative causal relationship running from the degree of central bank independence to inflation; i.e., the higher the degree of CBI, the lower the inflation rate (e.g., Grilli, Masciandaro, and Tabellini, 1991; Cukierman, 2008, 2013; Cukierman, Webb, and Neyapti, 1992; Alesina and Summers, 1993). Some studies also find no apparent relationship between the degree of CBI and real economic performance as measured by indicators like the level and variance of unemployment.

These findings have important implications. Putting the two together, it seems the benefits of low inflation can be achieved without any adverse impacts. As Grilli, Masciandaro, and Tabellini (1991, p. 375) conclude, "Thus, having an independent central bank is almost like having a free lunch; there are benefits but no apparent costs." However, evaluations of these studies have revealed that these two broad findings are due to poorly-

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<sup>12</sup> For a survey of this literature, see Polterovich (2006).

<sup>13</sup> See Popov (2011, 2011a).

specified models; other factors – e.g., the structure of labour market, exchange rate regimes, and exposure to supply shocks – are found to be more relevant in explaining cross-country differences in inflation than the degree of central bank independence (Jenkins, 1996). Therefore, it could be that in developing countries with tight monetary policy – through currency boards and exchange-rate-based stabilisation – low inflation is achieved at the expense of restricted economic growth (Muzaffar and Junankar, 2014; Chowdhury 2005).

Furthermore, referring to the dramatically expanded objectives and powers of central banks beyond their traditional inflation targets and policy rates in the aftermath of the 2008-2009 global financial crisis, especially in developed countries, Balls, Howat, and Stansbury (2016, p. 2) argue that “these unelected, technocratic, institutions [have] become increasingly powerful”. Therefore, “the pre-crisis academic consensus around central bank independence – put crudely, ‘the more, the better’ – has become inadequate”. According to them, these “absolutist interpretations of complete central bank independence may both undermine the pursuit of new central bank objectives and fray the political support that currently exists for central bank autonomy in their core monetary policy function.” Therefore, Balls, Howat, and Stansbury make an important distinction between political and operational independence, where the former refers to the absence of any possibility for politicians to influence central bank goals or personnel and the latter refers to the central bank’s ability to choose an instrument to achieve inflation goals. They find that while the operational independence of central banks has been associated with significant improvements in price stability, political independence is not correlated with inflationary outcomes, at least in advanced economies.

## **2.4 Macroeconomic policy reactions to external shocks**

In the face of a negative terms of trade or financial shocks leading to a deterioration in the balance of payments, there are two basic options for a country that has limited foreign

exchange reserves. First, a country can maintain a fixed exchange rate, or even a currency board, and wait until the reduction of foreign exchange reserves leads to a reduction in the money supply: this should drive domestic prices down and stimulate exports, raise interest rates, and stimulate the inflow of capital, and finally correct the balance of payments. Second, the country can allow a devaluation of the national currency; a flexible exchange rate should automatically bring the balance of payments back into the equilibrium. Because national prices are less flexible than exchange rates, the first type of adjustment is associated with a greater reduction of output.

The empirical evidence on Eastern European countries and other transition economies for the 1998-99 period – i.e., an outflow of capital after the 1997 Asian and 1998 Russian currency crises and a slowdown of output growth rates – suggests that the second type of policy response – devaluation – was associated with a smaller loss of output than the first type – monetary contraction. Developments during the 2008-09 global financial crisis provide additional evidence for this observation (Popov, 2011).

## **2.5 Exchange rate regimes**

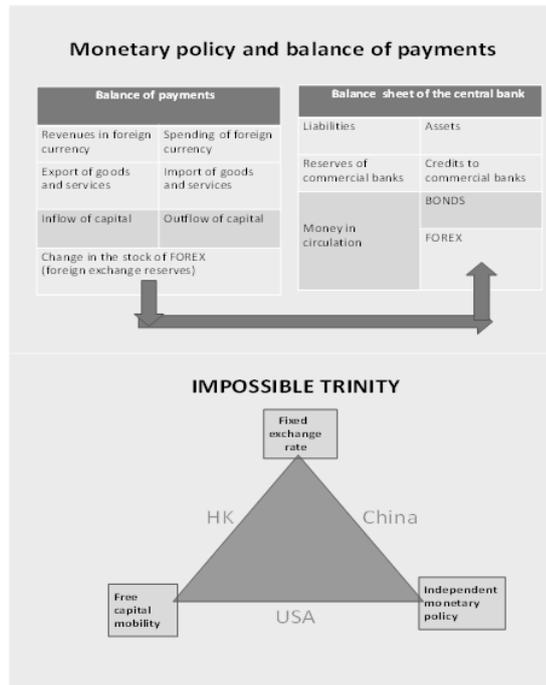
The textbook theory is based on the Mundell-Fleming model. One of its conclusions is that independent monetary policy is impossible under perfect capital mobility and fixed exchange rates – the impossible trinity (see fig. 1.1) – because changes in the domestic interest rate take the balance of payment out of equilibrium with the resulting change in foreign exchange reserves. Monetary expansion – when the LM curve shifts to the right – for instance, results in lower interest rates and an outflow of capital, which in turn leads to a lower level of foreign exchange reserves and a contraction of the money supply – when the LM curve shifts back to the left. On the contrary, with flexible exchange rates, monetary policy is 100% efficient: when monetary expansion leads to a decline in interest rates and hence an outflow of capital, the exchange rate of the national currency falls. This leads to an increase in income – the

IS curve moves right – so a new equilibrium is established at a point of higher income and at the same level of interest rates.

Under fixed exchange rates, the adjustment to an external shock – say, to a fall in prices for exported goods or to an outflow of capital – occurs through changes in the money supply as summarised below:

- Trade balance (or capital account balance) deteriorates => Foreign exchange reserves fall (FOREX) => Money supply falls => Domestic prices fall => Real exchange rate [ $RER = \text{Domestic prices} / \text{Foreign prices} \times \text{Nominal exchange rate}$ ] falls => Trade balance improves (export increases, imports shrink).
- Besides, tight monetary policy through a reduction in the money supply leads to higher real interest rates, so there is an inflow of capital and an improvement in the capital account which also contributes to a restoration of balance-of-payments equilibrium.

**Figure 1: Central bank balance sheet, balance of payments, and impossible trinity**



The problem with this type of adjustment is that monetary contraction affects not only prices, but also output if prices are sticky: the reduction of the money supply leads to a slowdown of inflation, only with a lag, and during this lag output – or output growth rates – falls, so the cost of bringing the real exchange rate back to a competitive level is a recession, as happened in Russia in 1997-98 and Argentina in 1999-2002.

Under fully flexible exchange rates, the adjustment to an external shock – say, to a fall in prices for exported goods or to an outflow of capital – occurs without changes in foreign exchange reserves (FOREX) or the money supply, but through the exchange rate itself, as shown below:

- Trade balance (or capital account balance) deteriorates=> Nominal exchange rate falls (depreciates) => =>Real exchange rate [RER = Domestic prices/Foreign prices]\*Nominal exchange rate] falls =>Trade balance improves (exports increase, imports shrink).
- Besides, domestic assets after devaluation become cheaper, so there could be a capital inflow or a slowdown in capital outflow.

This type of adjustment is also painful, in the sense that it leads to a decline in consumption as net imports decline after devaluation, but domestic prices do not fall. In fact, after a while they start to increase, eating up the pro-competitive effect of devaluation, so there is no depressive effect on output. Which type of adjustment is associated with a greater reduction of – or slowdown of growth in – output, through the money supply and a slowdown of inflation or through devaluation, is open to question.

This issue is also discussed in terms of plusses and minuses of exchange rate based stabilisation – pegging the national currency to a stable currency and using the peg as the nominal anchor – versus money-based stabilisation, the policy of setting targets for monetary aggregates – and gradually lowering these targets – while keeping the nominal rate flexible. The advantage of the former is that it is usually believed to be credible, although there are many cases of spectacular failures, from Russia in 1998 to Argentina in 2002. Money-based stabilisation allows more flexibility for monetary policy, in line with a one-size-does-not-fit-all argument. For instance, if prices are sticky, such that 10% inflation is needed to avoid a depressing effect on output, then a 10% annual devaluation, provided there is zero inflation elsewhere, can ensure the stability of the RER. The disadvantage of this policy is that there is no automatic mechanism to bring down inflation; everything depends on how strictly the central bank observes the targets.

With regards to the medium-term and short-term, there is another argument: asymmetric shocks. These occur, for example, when commodity prices increase. Consider the case of one country, an oil exporter, and another country, an oil importer. The increase in oil prices will create a positive trade shock for the exporter and a negative shock for the importer. If both countries have fixed nominal exchange rates, in the former country FOREX will increase, in the latter it will decrease. At the end of the day, this latter country – the oil

importer – will be unable to sterilise the decline in FOREX, if the trade shock is significant enough, so the money supply will decrease, prices fall, and the RER will fall as well.

Even if prices are perfectly flexible, there will be a need to move resources – labour and capital – from the oil sector to other sectors of the economy. And when oil prices rise again, there will be a need to move resources in the opposite direction, from other sectors to oil. Because oil prices fluctuate a lot, it is unreasonable to move resources back and forth every time there is a trade shock. With fixed exchange rates, the room for manoeuvre to adjust to these temporary shocks is limited.

With fixed exchange rates, and with currency board arrangements even more so effectively forcing countries to abandon their independent monetary policy, countries are doomed to adjust to trade shocks and inflows and outflows of capital through real indicators: when the exchange rate is pegged and prices are not completely flexible, changes in the money supply caused by fluctuating reserves may affect output rather than prices. And as the recent experience of East Asian and transition economies has shown, this kind of real sector adjustment is quite costly. To put it in the simplest terms, under fixed exchange rate regime, neither changes in foreign exchange reserves nor domestic price changes in response to money supply fluctuations provide enough room for manoeuvre for responding to terms of trade shocks and changing international capital flows.

Most developing and transition economies, with the exception of the smallest ones, like Hong Kong, Singapore, and perhaps the Baltic states, are large enough to remain preserved against exposure to global market competition and to hence retain some inflexibility of domestic prices with respect to global market prices. Nevertheless, they are not large enough to create an appropriate cushion in the form of foreign exchange reserves, bringing down the vulnerability resulting from the international capital flows to reasonable levels. In most emerging markets, with the possible exception of China, foreign exchange reserves are normally enough to withstand only several weeks, if not days of an attack on

the currency. More than that, because major international banks, investment funds, and hedge funds operate with pools of money comparable to or even exceeding the value of reserves in most countries, exchange-rate fluctuations remain the only reliable and efficient safety valve providing protection against external shocks.

The consensus today, if any, could probably be summarised as follows: whereas exchange rate based stabilisation may work to fight inflation at the initial stages of transition, there is growing evidence that at later stages it becomes an obstacle to economic growth and creates the potential for a currency crisis by allowing the real exchange rate to appreciate.

## **2.6 Long-term level of the exchange rate and accumulation of foreign exchange reserves**

Undervaluation of the exchange rate via long term accumulation of foreign exchange reserves is in fact a growth policy stimulating export-oriented development. This used to be a policy of many fast growing economies in East Asia and elsewhere (Polterovich and Popov 2004; Popov 2010).

Undervaluation of the exchange rate via an accumulation of foreign exchange reserves is a macroeconomic policy, but also in fact an industrial policy aimed at promoting export-oriented growth, which benefits the producers of tradables and exporters at the expense of the producers of non-tradables and importers. This policy is gaining support in the literature (Dollar, 1992; Easterly, 1999; Polterovich and Popov, 2004; Rodrik, 2008; Bhalla, 2012). If there are externalities from exports and production of tradables, like industrialisation and the development of high-tech sectors, the undervaluation of the exchange rate resulting from an accumulation of reserves provides a subsidy to these activities and this subsidy is automatic, i.e., it does not require a bureaucrat to select possible beneficiaries. In short, this is a non-selective industrial policy promoting exports and the

production of tradables that seems to be efficient, especially in countries with high levels of corruption and poor quality institutions. An accumulation of reserves and the undervaluation of the exchange rate may therefore be good for long-term growth.

However, if all countries use these policies, they will all lose, and, on top of that, for developed countries this policy does not work. But for developing countries it works, and there are good reasons why these countries should have sufficient policy space to use this tool to promote catch-up development.

The policy of reserve accumulation is often considered to be self-defeating because in order to avoid inflation, which would eat up the impact of devaluation of the real exchange rate, it would be necessary for monetary authorities to carry out sterilisation policy, i.e., to sell government bonds in order to neutralise the impact of purchases of foreign currency on the money supply. But sales of government bonds lead to higher interest rates, which in turn attract capital from abroad, which contributes to an increase in foreign exchange reserves (FOREX), which again needs to be sterilised, which creates a vicious circle. That is why economists talk about an ‘impossible trinity’; a country cannot maintain an open capital account, fixed exchange rates, and independent monetary policy all at the same time (see fig. 1.1).

But many developing countries do exercise control over capital flows – China and India would be prime examples – and even without such controls, capital mobility cannot be considered perfect, especially for large economies. In practice, as the statistics show, an accumulation of FOREX is financed through a government budget surplus and debt accumulation, but not through printing money (Polterovich and Popov, 2004). That is to say, most countries that have accumulated reserves rapidly have exhibited low inflation, and low budget deficits or a budget surplus, but growing government debt. In the post-Soviet space, Uzbekistan – at least since 2000 – is probably the only country that has carried out predictable and gradual nominal currency devaluation, which is a bit larger than needed to

counter the differences in inflation rates between Uzbekistan and its major trading partners, so that the real effective exchange rate depreciates slowly. The real exchange rate of the Uzbek Som (the Uzbek currency) versus the US Dollar has appreciated a little, although not as much as currencies of other countries. However, the real effective exchange rate of the Som fell by over 50% in 2000-07, a sharp contrast with other countries in the region for which data are available.

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