Money and Finance as Global Public Goods.
Contribution to a Supranational Macroeconomic Theory
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1. The need for a new macroeconomic theory

The financial crisis of 2008 cannot be considered as a traditional business cycle the capitalist economy produces from time to time. The crisis provoked a dramatic fall in world international trade, world output, world employment and a serious deterioration of public indebtedness for many governments, forced to rescue their banking system from bankruptcy. Charles Kindleberger (1973) considered the great depression, following the crash of 1929, as caused by the difficult transition from an international economic order led by Great Britain to a new international economic order led by the United States. The present crisis is of the same order of magnitude, but its evolution and outcome will be different, because while the world leadership of the USA is declining, no other super-superpowers can replace it. The international institutions (UN, IMF, GATT-WTO, etc.), created on the initiative of the US after the Second World War, worked sufficiently well during the cold war and the two decades following the breakdown of the USSR, but the international political system has now changed profoundly. Not only are new big powers, like China, India, Brazil, willing to share with the old industrialized countries – USA, Russia, Europe and Japan – the power to lead the world economy, but new dramatic challenges, such as the risk of an ecological collapse of the biosphere, need to be faced. A new multi-polar world is taking shape. A new political and economic thinking is required.

Since the epicentre of the financial crisis has been located in the USA, many studies and essays deal with the US economy and suggest reforms, which should be adopted by the US government to avoid a new crisis and guarantee sustainable development. The implicit assumption is that the recovery of the US economy will give a substantial contribution to the recovery and stability of the world economy; in other words, the US is regarded as the stabilizer of global economy. Indeed, in the old hegemonic system, this was more or less the role of the US. But that is the past. The financial crisis of 2008 marks a turning point: in the new multi-polar world no single country, not even the US, will have the hegemonic power to lead the world. National reforms are not enough. We need a new world political and economic order. Only within the framework of a cooperative multi-polar order, national reforms can be conceived and be successful.

It is encouraging that some leading American economists understand the new role that the US should play in international politics. For instance, Joseph Stiglitz, after having reconstructed the events causing the financial crisis with great accuracy, criticizes market fundamentalism – the notion that unfettered markets by themselves can ensure economic prosperity and growth – as the main cause of the US’s wrong policy and supports the idea that a better balance between the market and government should be found. Stiglitz says: “Enhancing economic performance requires
improving both markets and government. There is no basis to the argument that because governments sometimes fail, they should not intervene in markets when the markets fail – just as there is no basis to the converse argument, that because markets sometimes fail they should be abandoned” (Stiglitz, 2010: 245). Moreover, Stiglitz recognizes that the US cannot promote the recovery alone, but should cooperate with other countries to build a new international order, founded on a new reserve currency, as the SDRs issued by the IMF, because the dollar can no longer play the role of key currency for the international monetary system. Even Fred Bergsten is very clear about the link between internal and external reforms, which should be conceived as a new “global rebalancing strategy.” Bergsten says: “by reducing the systemic role of the dollar and building up the international position of other currencies and SDRs, the United States would increase its own incentives to limit its deficits and enable other countries to add to their reserves without running surpluses. The cumulative effect would be greater prospects for international monetary stability and a reduced likelihood of future crises” (Bergsten, 2009). Nevertheless, the most explicit acknowledgement of the need for a new macroeconomic theory is put forward by Jeffrey Sachs, who says: “sustained and widespread future prosperity will require basic reforms in global macroeconomic governance and in macroeconomic science.” The US and all other industrialized countries should approve economic policies to increase their saving – by imposing new taxes, like the carbon tax – and invest in critical public goods, to face the challenges of climate change, higher education, public health, and world poverty. “A new strategy of economic governance, one that is structural and global – says Sachs – is now needed, and a new science of macroeconomics must supersede the stale debate of Keynesian and rational expectations theories.” The new macroeconomic science, Sachs correctly affirms, is necessary because “bridging the divide of macroeconomics and global governance is exactly the challenge we face, both in policy and scientific terms.” (Sachs, 2009).

In dealing with these problems, I share two points of view. As a world citizen born in Europe, I consider European integration as a workshop for world integration too, since the European Union is the first experiment of supranational integration. The second point of view is that of an economist trained in studying classical political economy during the years subsequent the publication of Sraffa’s Production of Commodities by Means of Commodities: it was the discovery and exploration of a new paradigm, alternative to the dominant neo-classical economic theory. But very soon I realized how difficult it was to understand the problems of European integration in the theoretical framework of classical political economy. It is true that in Adam Smith and Ricardo we can find some very useful principles, such as the principle of comparative costs, to analyse international economy. But these principles are insufficient to understand the European experience, which consisted mainly in building supranational institutions and supranational public goods, like the Common Market and the European Monetary Union. Afterwards, it became clear to me that not only classical political economy but also the modern theory of international economics did not consider the problem of supranational institutions prominent. For instance, international monetary problems are analysed as the choice between fixed and flexible rates of exchanges. The third way of a Monetary Union was not taken seriously into consideration until the creation of the EMU.

In order to find the appropriate means for the government of global economy, the most promising starting point is Keynes’ macroeconomic theory. It is true that the General Theory was conceived for a closed economy, but Keynes himself was obliged to work out an international institutional framework of his system, an International Monetary Union, on the occasion of the Bretton Woods conference. The challenge, for today’s economists, is to renovate the General Theory for the government of the global economy. The challenge is twofold. Not only do we need to shape new instruments for a global economic policy, but also new institutions. In Keynes’ General Theory the institutions of the nation state – a national money and a national budget – were not even discussed; they were a common accepted heritage of the 19th Century.
2. The monetary roots of the financial crisis

Since the financial crisis of 2008 was not followed by a dollar crisis, many economists focus their attention on the dysfunction of the American financial system. Of course, these dysfunctions exist, are serious and should be eliminated by better regulation. But the roots of the crisis remain in the international monetary system, built at Bretton Woods as a gold-exchange standard and, after the declaration of the inconvertibility of the dollar, transformed in a dollar standard. One of the features of the international utilization of the dollar as the key currency for international transactions is that the USA can pay their imports with their national money. Therefore, the US is not obliged to maintain the balance of payment in equilibrium and to keep a reserve currency. These privileges of the dollar caused an enormous increase in the international reserves, which rose 20 times from 1969 to 2000. They rose only 1.5 times from 1949 to 1969 (Duncan, 2005: 226). If international reserves can be considered an index of international liquidity, it is reasonable to say that the dollar standard caused an excess of liquidity in the world, because total exports increased only 5 times in volume, but 25 times in value, during the same period (from 1969 to 2000 world GDP increased 2.7 times).

Some economists were able to foresee the negative effects of the dollar standard well in advance. Robert Triffin, who in 1960 showed the inconsistencies of the gold-exchange standard and its inevitable break down, in 1992 labelled the dollar standard “International Monetary Scandal”, because it could “easily degenerate into a self-feeding spiral of inflationary reserve increases, since these are reinvested in the reserve centres and increase the ability of their leaders – official and private – to pursue inflationary policies” (Triffin 1992: 14). Triffin’s analysis embodied the main causes of the present financial crisis. Indeed, we can read the recent analysis of Richard Duncan, The Dollar Crisis (2003, 2005), as a restatement of Triffin’s point of view. According to Duncan, the Japanese crisis of 1990 and the Asian crisis of 1997 should be considered a by-product of the dollar standard. During the Sixties, Japan was able to base its industrial production and growth on its capacity to export. But during the Eighties, Japan’s trade surplus increased so much that the country was obliged to accumulate international reserves (they increased by 260% between 1985 and 1988). In the same period the internal money supply increased sharply and so did the credit supply, causing a boom in the house market and stock exchange. “All credit bubbles – says Duncan – ultimately end in deflation because the purchasing power of the public does not increase quickly enough to absorb the surge in production that results from extended periods of easy credit. In other words, the ability of the public to buy does not increase in line with the capacity of industry to produce. When product prices begin to fall, debtors find they are no longer able to pay interest on their debt. Bankruptcies follow, credit contracts, and the economy enters recession. The Japanese bubble ended the same way” (Duncan, 2005: 31). The Asian crisis of 1997 was different from the Japanese one only in some details, but the general trend was the same. In Thailand, the crisis was not caused by a trade surplus, but by the surplus in financial account. Foreign capitals entered as direct foreign investments, portfolio investments in the stock market and deposits placed in the Thai financial system. But even in Thailand, we can detect an increase in foreign reserves, in money supply and credit, and a bubble in the house market and the stock exchange. The explosion of the bubble economy was followed by a flight of capitals, a foreign exchange crisis and a dramatic fall in GDP (about 35%, from 1997 to 2003). A similar pattern was followed in South Korea, Malaysia and Indonesia (whose GDP fell by 55%, from 1997 to 2003).

For the US, the increase of world reserves cannot be a direct cause of the crisis. But the excess of international liquidity worked as a boomerang for the US economy, which was considered, before the crisis, the borrower and spender of last resort of the world economy (Wolf, 2009: 98). During the last decade, the US economy exploited the chance of importing very cheap goods from developing countries, mainly from China, which contributed to the mitigation of prices and wage demand. The gross domestic purchases, in the 1993-2004 period, rose by 53%, while GDP grew only by 46%, so that a huge current account deficit (6% of GDP, in 2006) was
inevitable. The external deficit was covered by an inflow of foreign capitals coming mainly from surplus countries, especially China. The inflow of capitals helped the FED to maintain the interest rate low, which stimulated the boom in residential property market. Indeed, the US “successfully absorbed much of the excess savings of the rest of the world. It has done so by promoting rapid growth of demand and, in particular, of consumption. The household sector has been principally responsible for the excess of spending over incomes” (Wolf, 2009: 106). Therefore, without entering in a precise description of the financial crisis, we can understand well the remark of the UN Report, according to which “the sub-prime crisis, which led to a wider crisis in credit markets, was partly engendered by an ‘excess’ supply of liquidity and the failure of the Central Bank in the United States and some other advanced industrial countries to act to restrain liquidity and dampen the speculative increases in housing prices” (Report of UN, 2009: 17). If we consider the monetary policy of the FED in the wider context of the international economy it is easy to understand why, as Triffin said, for the US policy-makers it was reasonable to favour a world liquidity spree.

After the financial crisis of 2008, how can a world recovery be stimulated? It is unlikely that the US can work again as the “borrower and spender of last resort” and the European economy is certainly not able to replace the USA as world engine of growth. Moreover, in order to avoid the collapse of the banking system, the governments of the US and the EU were obliged to bailout some financial institutions and launch “Keynesian” plans to support internal demand and employment. The debt of the US increased from 64.6% of GDP in 2005 to 98.1% in 2010; in EU-27 the total debt increased from 61.6% of GDP in 2008 to 73.6% in 2009 (in Eurozone from 69.4% in 2008 to 78.7% in 2009). In both economies the rate of unemployment is well above the average of the years preceding the crisis. In 2009, world production fell by nearly 2%; the world productive capacity is underutilized. But to affirm that the world economy is depressed is dubious, because China, India, Brazil and other emerging economies are experiencing a rapid rate of growth. The index of world exports, which was 120 in July 2008, fell to 70 in January 2009 and is recovering toward the level of 100 (WTO data). The concept of effective world demand can be questioned, because there are as many effective demands as there are national moneys and their sum is meaningless (to sum a depressed economy and a booming economy does not result in a full employment economy). In any case, since the problem of governing the global economy exists, it is necessary to clarify what we mean by an effective global demand policy.

We can split the problem of effective global demand into two parts. For industrialized countries (USA, Europe and Japan) the main problem is a non-inflationary recovery. Until now the emergency plans adopted by governments were based mainly on supporting consumption demand. We agree with Sachs that, today, there is the need to support investments plans to promote social and ecological sustainable development. The age of consumerism is over. For emerging economies, one of the main obstacles to their development is the abnormal need for external reserves. As the UN Report says: “While it is rational for individual countries to ‘insure’ against another crisis through the build-up of external surpluses and foreign reserves, doing so weakens aggregate demand. … It is possible that when many countries simultaneously attempt to build up reserves the global economy will suffer from generalised insufficiency of aggregate demand – a global version of the well-known paradox of thrift” (Report of the UN, 2009: 21).

In the following pages we try to single out the main economic institutions required to regulate effective global demand. Our point of view is that some of the economic institutions built within the nation state are becoming today ineffective in a global economy. Therefore, we examine the problems of monetary sovereignty, financial sovereignty and fiscal sovereignty because some important public goods – like monetary and financial stability, international justice, sustainable development – can be supplied only by appropriate supranational institutions. For this research, the European experience of integration can represent a useful model, even if the EMU is a very imperfect construction as far as financial and fiscal sovereignties are concerned (Defraigne, 2010).
3. Monetary sovereignty

The tree sovereignties are interconnected. In a closed economy, the central government is usually responsible for these three policies. In open economies, the question is more complicated. The European Union is the only case in which monetary sovereignty belongs to European authorities, while financial and fiscal sovereignties belong to national authorities. The Maastricht Treaty stated that the ECB has the primary duty to guarantee price stability. Monetary stability and low interest rates were considered the basis for sound national financial policies and growth. Moreover, in order to pursue these objectives in an interdependent economy, the EU chose a flexible rate of exchange for the euro. The financial crisis showed how fragile this construction is. The flexible rate of exchange was not a strong enough bulwark to isolate the EU economy from the 2008 turmoil, because the European banks were strictly involved in the global financial system. Now, the EMU is entering a phase of radical reforms.

These interrelationships also exist in the global economy. The international monetary system, as we saw in the previous paragraph, is the vector of international finance. Whoever holds the reins of international money and international liquidity has some objective advantage, without having the correlative duties (world monetary stability). Indeed, it is exactly this asymmetry, which was brought into light by the Governor of the People’s Bank of China before the G20 of April 2009. Zhou Xiaochuan (2009) affirmed that the country issuing a reserve currency is “constantly confronted with the dilemma between achieving their domestic monetary goals and meeting the other countries’ demand for reserve currency ... The Triffin dilemma ... still exists”. For this reason, Zhou proposed to substitute the dollar as a reserve currency with SDRs issued by the IMF. Since the reform of the international monetary system is on the agenda of the G20, the debate is open and many scholars have already put forward proposals for reforms (Mateos y Lago I., Duttagupta R., Goyal R., 2009; Kregel, 2009; Williamson 2009; Cooper, 2009; Kenen, 2010). Here, let us consider the straightforward proposal of a world monetary union. Usually, the reforms of the international monetary system are discussed without clarifying this implicit point of arrival. On the contrary, at Bretton Woods, both Keynes and White, in their original plan, envisaged a world money for the future. Let us now consider the cost and benefits of a world monetary union. In the final paragraph, a transitory step is suggested.

The world has experimented long phases of stability and growth by means of a system of fixed exchange rates during the gold-standard of the 19th Century and the gold-exchange standard of the last Century. But, as the economic theory explains, with capital mobility, a system of fixed exchange rates cannot survive. A country cannot simultaneously choose an independent monetary policy, fixed exchange rates and free capital movements. The alternative is a system of floating exchange rates. But the experience of the last decades shows that only big economies, with important internal markets, like the USA and the EU, can afford the vagaries of a system in which, daily, capital movements are hundred of times bigger than trade transactions. For underdeveloped economies this system is devastating. They need monetary and financial stability, in order to spur industrial development. A certain “fear of floating” is understandable; in some cases, “dollarization” was preferred to monetary instability. Therefore, the creation of a world monetary union is crucial for the stability of the world economy and the development of poor countries.

Of course, this decision has also some transitory costs, which should be dealt with. A monetary union involves, in the last resort, the free movement of commodities and capitals. Concerning this point, Friedrich List’s critique to free trade is well known: the German agricultural economy was supposed to protect its “infant industry” until fair competition with industrialized Great Britain became feasible. Competition is fair only among countries with the same degree of development. But, in the 21st Century, it is not difficult to provide sensible replies to these understandable fears (Frankman, 2002). The USA and the European Union have found many policies to face internal regional problems: in the world monetary union, trade and capital mobility
among countries should be considered regional problems. They can be solved if a minimum degree of solidarity exists among industrialized and emerging peoples. For instance, as far as trade is concerned, some stabilization funds, like Stabex and Sysmin created by the EU in the framework of the Lomé Convention to stabilize the incomes of ACP countries, can also be created within the UN. Of course, these funds should be financed by a UN budget, which at present does not exist. As far as capital mobility is concerned the real problem is not to avoid geographical mobility, but to regulate the behaviour of FDI and multinational firms in hosting countries, to abide by local law, including minimum wages and taxation. A world monetary union can represent the starting point for a more equal distribution of income among poor and rich peoples and for the curtailing of the exorbitant power of financial capitals, today free to go into the most convenient “fiscal paradise”.

Now, let us examine the problem of global imbalances. In the world’s balance of payments, the total of surplus and deficits should be zero. If we take the 2006 accounts into consideration, just before the crisis, we can see that the EU, including the UK, was more or less in balance, the Asian countries (Japan and China included) and the Oil exporting countries showed a big surplus while the US deficit counterbalanced the total surplus. China’s surplus was 9.5% of GDP and non-Asian emerging countries had a surplus of 5.2% of GDP. This picture confirms the role of the USA as the borrower and consumer of last resort and of emerging economies as savers and lenders of last resort: exactly the opposite of what should happen among rich and poor countries. It is the real side of Triffin’s International Monetary Scandal.

There is a lively debate on the causes and impacts of global imbalances (for a survey, ECB, 2010). Here, our aim is simply to show how a world monetary union could help to “rebalance” the world economy. In a single monetary area, nobody cares about the balance of payments of a city, a province or a region. Everyday economic life shows that some regions are more developed than others, some regions offer more opportunities for investments and jobs than others and so on. An integrated economy involves an endless improvement in the division of labour within the firms and the market: geographical imbalances are the rule, not the exception. A world monetary union, by itself, can contribute to rebalancing the world economy by eliminating the need for international reserves. If every country utilizes the same currency, as in the EMU, there is no need for foreign reserves, because liquidity is supplied to the banking system, in the last resort, by the common central bank. This means that the balance of payments can no longer be exploited for political reasons. Let us consider the present imbalance between China and USA. In 2009, China had almost half of the total reserves of the emerging economies. The USA feared a sudden stop of the reinvestment of Chinese reserves in US Treasury Bonds. China feared a sudden devaluation of the dollar. It is difficult to say who will win this game, which is also connected to military and power politics. In any case, the adoption of a common currency will eliminate any possibility to exploit the balance of payment for political reasons. In a world monetary union, a surplus country, like China, has no particular advantage in having a surplus in its current account: the only problem is to sell Chinese commodities in the world market. Of course, if Chinese commodities are sold in foreign markets, “foreign money” will flow into the Chinese banking system. In the past, foreign reserves (in dollars) were an instrument of power in the hand of the central government. But if this instrument evaporates, the best way to utilize the incoming money is to employ it to increase the people’s standard of living. Today, China saves 50-60% of its GDP. Private savings are high, even if the main share comes from corporate saving and government. Households receive a little share of total production. The share of consumption in GDP declined from 46% in 2000 to 36% in 2009. Today, the main problem of the Chinese economy is to increase the share of consumption at a rate greater than the rate of growth. That will cause a reduction in investments and the surplus of the current account (Pettis, 2010). This radical change in economic policy is certainly difficult, but it is time, for the Chinese government, to let the wage rate increase quickly and to provide better social services, even if the competitive advantages of Chinese commodities in the global market are eroded.
For the USA, a deficit country, the creation of a world monetary union is a major change. After the financial crisis, the USA monetary policy has to face Triffin’s dilemma anew. The recovery requires very low rates of interest, to favour home investments and consumptions and, thanks to a devaluation of the dollar, an increase in exports. But a too strong devaluation of the dollar will lower the value of the dollar reserves held by emerging economies, which could decide to substitute dollars with euro or some other currency. A flight from the dollar could cause a new global crisis with dramatic consequences for the world economy. A world monetary union would eliminate Triffin’s dilemma from the roots. Not only can the dollar no longer be devalued against other currencies, but also the rate of interest would be fixed, in the world market, by world monetary authorities (as explained in the last paragraph). These changes would help the Federal government to spur the reforms the American economy needs. The household rate of saving was only 2% of GDP before the crisis; during the crisis consumption decreased, but “the rapid rise in household saving was offset by an even more rapid rise in public borrowing.” (Stiglitz, 2010: 189). The money borrowed by the government – required to support internal demand – came mainly from abroad. The US economy cannot live forever consuming more than its income. In a world monetary union nobody needs dollars as international reserve and the US government cannot rely forever on surplus countries to finance its Treasury Bonds. Of course, the American financial market will remain for years to come the strongest market of the world and many capitals will look for investments in the American market. But the US Treasury Bonds should compete with other Public Bonds in the world financial market, where the risk of sudden devaluation is removed. Therefore, the US budget should be rebalanced and respect, more or less, the same rules of the European Growth and Stability Pact.

Contrary to what is commonly believed, the loss of national monetary policy is not a tragedy. The European governments are learning that they should spend the money collected by taxing their citizens more carefully. It is not only a problem of public morality, but also one of utilizing the public budget to promote the investments and the infrastructures the society and market need. The American economy must face the challenge of a new model of development. The American economy consumes too much energy and pollutes the atmosphere too much. In the past, the negative American stance on the occasion of the UN conferences on climate change was one of the main causes of their failure. Since citizens’ consumption models change slowly, the government should favour more social investments with appropriate reforms.

A full discussion on global imbalances requires much more space of course. A monetary union can sometimes increase imbalances, as in the case of regional congestion. An appropriate fiscal policy can become necessary. Nevertheless, in the Appendix we try to show that instead of looking for ingenious policies to rebalance international economy, without discussing the crucial problem of world money, it is best to cut the Gordian knot.

4. Financial sovereignty

According to Hyman Minsky the capitalist system is structurally unstable, mainly because “over periods of prolonged prosperity, the economy transits from financial relations that make for a stable system to financial relations that make for an unstable system” (Minsky, 1993). The global financial crisis showed that Minsky’s view of financial markets is more correct than that of market fundamentalists. The problem to face, now, is how to avoid a new crisis. If Minsky’s financial instability hypothesis is correct, a permanent solution to capitalism instability is impossible. But, we can find some reforms to diminish the risks of instability. Appropriate institutions increase security and stability.

Financial crises are usually followed by sovereign debt crises (Reinhart, Rogoff, 2009), as the case of Greece in the EMU showed. In this paragraph, we deal with the first problem only. The 2008 crisis showed that, in the USA and Europe, the governments were caught between bailing-out
The debate on the dilemma – either bail-it-out or let-it-fail – shows that there is a third way: the creation of a resolution authority. On the one hand, there is the need to change banking and financial rules concerning credit for mortgages, trade finance and corporate investments. On these issues, the Basel Committee proposes new rules on bank governance. On the other hand, one of the causes of the crisis was the official supervisor authorities’ incapacity, central banks included, to diagnose the malfunctioning of the financial market and to intervene. The official authority should intervene ex-ante and not ex-post, to declare bankruptcy, as happened with Lehman Brothers. A new institution is required. The “resolution authority” may decide to seize the bank when it is still functioning, take control and separate or sell certain parts or assets of the bank, remove its management, freeze the rights of shareholders and creditors and reorganize or wind down the bank. It may agree on deals with the bank’s counterparties, etcetera. All this will reduce the disorder and damage in the financial markets and result in orderly liquidation or merger” (Ruding, 2010: 3).

The USA and the EU are reforming their banking and financial system. Of course, the reforms take the different features of the two economies into consideration. For instance, the banking sector is more important in Europe, compared to the financial system, than in the USA: in 2007, bank loans were 145% of the Euro area GDP and only 63% in the USA. But the real difference is the institutional system: fully federal in the USA and semi-federal in the EU. Indeed, in 2010 the USA approved a law embedding the so called Volker Rule, which prohibits a bank from engaging in proprietary trading and from owning or investing in hedge funds, as well as limiting the liabilities that the largest banks could hold. The purpose is to reduce banking activities and their size, in view of resolving the too-big-to-fail dilemma. Moreover, the law includes new government powers to break up any company that becomes so big its failure could threaten the economy. All in all, the US law includes the principle of a resolution authority.

The EU is following another path. The EU has a federal monetary system, but no federal fiscal system and no federal government. The proposals of the EU Commission are very cautious. It proposes a European Systemic Risk Board (ESRB) that would be responsible for macro-prudential oversight of the financial system, but without binding powers to impose measures on member states. The ESRB, mainly entrusted to the ECB, can address warnings and recommendations. Moreover, the Commission proposes to establish a European System of Financial Supervisors (ESFS), consisting of a network of national financial supervisors working in tandem with the reformed European supervisory committees. The two new Authorities should cooperate closely in order to assure a smoother supervising interaction at macro-prudential and micro-prudential levels (CEC, 2009).

Here, our task is not to discuss the details of the European and American reforms. Our aim is to highlight the connections among monetary, financial and fiscal sovereignties. As far as monetary and financial sovereignties are concerned, economic theory clarifies the link very well. In the case of a financial crisis “everyone will demand liquidity … and everyone in the system understands that the only liquidity that really exists is central bank money … So when there is financial instability, there is likely to be monetary instability. This establishes a link between the natural role of the central bank as a provider of payments finality and its role in financial stability” (Schinasi, 2003: 9). Concerning the link with fiscal sovereignty, the European case is interesting because it clearly shows that without a European financial system, national governments strive to
maintain the core of oversight powers in their hands, thus breeding uncertainty. The decision on the bailing out or failure of a bank involves a parallel decision on public finances. Therefore, since the EU has a tiny budget, not big enough for this kind of policy, the powers of last resort rest with the member states, not with the EU. But in such a case a real European supervision is practically impossible; indeed, the ESRB can address only warnings and recommendations. If a financial crisis hits several European banks simultaneously, some national governments can decide not necessarily in agreement with other governments: for instance, one government is in favour of the bail-out and another for the failure of a certain bank. For this reason, so far, a European resolution authority has not been seriously taken into consideration.

The European case is useful to understand the difficulties in creating an efficient financial supervisory board in the international framework. Even if the G20 has set up a Financial Stability Board, it is doubtful that a world resolution authority would be created. Without solving the parallel world financial problem, the global financial system is doomed to remain unstable for many years.

5. Fiscal sovereignty

The original debate on the theory of the optimum currency areas has only incidentally considered the link with fiscal sovereignty (the exception is Kenen, 1969). The European experience, with the Maastricht Treaty, did not help to enlighten the problem. Indeed, the EU budget was about 1% of the EU-GDP before Maastricht and is still today of the same amount, even though a debate on its reform is open. Therefore, we are obliged to refer to the theory of fiscal federalism to discuss the fiscal problems of a supranational union of national peoples. The theory of fiscal federalism was shaped on the experience of the existing federations, mainly the USA (for a survey, Oates, 2008). The main limit of this approach is that fiscal federalism is considered a theory of fiscal decentralization. On the contrary, the main international problems are exactly the opposite: to fix the tasks and the fiscal powers of a supranational government. The central tasks and powers of the existing federations are not necessarily the same as those of a future supranational government.

This awkward problem was almost ignored in international political economy until recently, because the perspective of a supranational government was considered unrealistic. But the recent and lively debate on global public goods not only raised the problem of their implementation but also that of their financing. From the economic point of view, a public good is a good not produced by the market – because no firms can get a profit from its production – and it has the qualities of non-excludability and non-rivalry. A global public good benefits all peoples and all national governments. Here, we profit from this new perspective, recalling that the main principle of fiscal federalism – sometimes also defined multilevel finance – is that every level of government should be independent but coordinate with other governments. The best way to coordinate different governments is to draw a constitution, but the EU grew on the basis of intergovernmental treaties. For a government, to be independent and coordinated means that its tasks and its financial means should be defined with the maximum accuracy in order to avoid overlapping with the tasks and powers of other governments. From that point of view, it is important to refer to the so-called subsidiarity principle: a certain task (policy) should be assigned to the lowest level of government if possible, but to the higher level when the lower government is not able to provide a certain public good or can provide it only inefficiently (with higher costs).

From the broad debate on global public goods (Kaul, Grunberg, Stern, 1999; Stiglitz, 2006; ITFGPG, 2006), we pick out some uncontroversial issues: international security, economic stability and sustainable development. Of course, international security falls outside the horizon of macroeconomic theory. We only recall that, according to us, an important and reasonable step forward is the reform, proposed in 1992 by the UN Secretary-General, Boutros Boutros-Ghali, to create a military peace-enforcement unit at the disposal of the UN Security Council. From a
comprehensive point of view, international security is a pre-condition for international cooperation and a new economic order. As far as international economic stability is concerned, we have already tried to show that a world monetary union and a supranational authority for supervising the financial market should be considered the crucial institutions to provide this public good. But this is not enough. The world community must face other challenges, which can be epitomized in the general perspective of sustainable development. With this general label, usually people talk about two different problems. The first is the impact of economic growth on natural resources. The spread of industrialization in all countries produces serious external effects: life on the planet will be increasingly in danger if industrial growth does not become sustainable. The second problem is social sustainable development. The enormous gap between the standard of living of rich people and poor people is not only considered a scandal, but also the cause of many other problems, like emigration and terrorism. The UN is the main forum for the organisation of aid to development, to fight poverty and protect health, to overcome discrimination against women and to spread of literacy. These two aspects of sustainable development were in the past faced with specific policies and agencies. But now, it is increasingly clear that they should be considered as different aspects of the same problem: a sustainable development plan to save the Planet and to realize international justice (Stern, 2009). The difficult debate within the UN for an effective global policy against climate change shows that one of the hurdles to overcome is the unequal responsibility of the emerging economies for Planet pollution compared with industrialized countries. Rich countries started to pollute the Planet 250 years ago, at the beginning of the industrial era. Therefore, the total costs of the fight against climate change should be allocated not on a per-capita formula, but according to the pollution accumulated by all people. Rich and poor people are not at the same level in the playing field.

A UN budget, of the same relative size as the EU budget, financed mainly by eco-taxes and taxes on financial capitals, is a crucial means for global governance. It can be used to finance a world police force, as suggested by Boutros Boutros-Ghali, and a plan for sustainable development, including scientific research to face epidemic diseases and ecological threats. Moreover, a UN endowed with fiscal competences can help national governments to face the increasing power of private global finance, which overwhelms national powers and their capability to issue public debt. The two problems are connected, because the real guarantee for buyers of public bonds is the capacity of the government to collect taxes. The development of a global financial market has greatly reduced tax revenues coming from capital and increased the pressure on unqualified labour and other immovable factors. In the global financial market, countries do not cooperate but compete to exploit the common tax base. For a single country it becomes impossible to impose higher tax rates than other countries on financial capital and highly skilled labour. Since every country tries to exploit the same tax base, the strategy of exporting national fiscal pressure, attracting consumers and capitals from other countries with low tax rates, is becoming more and more popular (Tanzi, 2000: 215-30; 2002). The way out from the increasing erosion of national fiscal sovereignty is the creation of a Supranational Fiscal Authority within the UN with the power to tax multinational firms and global financial capitals. A share of the revenue collected by the Authority can finance the UN budget.

6. A macroeconomic policy for a supranational government

The great depression of the Thirties was the main spur for Keynes’s General Theory. Keynes conceived a macroeconomic theory to solve the problems of a closed economy. Today’s international macroeconomic theory overcomes this original sin only marginally, since it studies the behaviour of open national economies cooperating spontaneously without the need of supranational institutions. For instance, the international monetary problem is basically considered as the choice between fixed and flexible rates of exchange: the third way, a monetary union – a supranational
public good – is not usually taken into consideration. After the global financial crisis the time is ripe for a radical renewal of the macroeconomic theory. In this article, our aim was to show that some crucial economic problems could be better solved with the creation of supranational institutions, when international cooperation fails.

In a nation state, the central government hold the reins of monetary, financial and fiscal policies. In the international market the problem is to centralize some of these functions, when competition among national institutions can cause major market failures. Usually, in economic theory this problem coincides with the detection of the free-ride behaviour of a public good consumer. In international economics, the ideological screen of national sovereignty prevents a clear understanding of the problem, which is faced firstly by means of intergovernmental cooperation and not by supranational institutions.

The reform of the international monetary system is a case in point. The Governor of the Chinese Central Bank understood that the financial crisis was a by-product of the dollar standard, but his advice is shaped in the traditional intergovernmental framework. The dollar, the present international reserve currency, should be replaced by SDRs issued by the IMF. This proposal goes in the right direction, but it does not dispute the monetary sovereignty of nation states, which can continue to issue their currency according to the liquidity requirement of their national economy. The problem of managing global liquidity remains unresolved. Rightly, Richard Cooper observes that the SDRs can play only a “modest role” in solving international monetary problems. Of course, they can “reduce the pressure many countries evidently feel to earn additional reserves” and “this in turn would lead to some reduction in current account deficits around the world, notably in the United States” (Cooper, 2010). But the dollar will remain the main reserve currency, because governments will find it convenient to invest their reserves in the US financial market.

If the proposal of a world monetary union is taken into consideration, the same practical step could be suggested and realized in a short time. Of course, a world bank cannot be built in just a few years, but a world monetary policy can be simulated if the political will exists among the governments of the G20. Let us suppose that the G20 countries (or an important group of countries) agree to adopt a “global inflation target” (Taylor, 2009: 63) of 3%. This reform (as suggested in Mundell, 2005, and Fiorentini, Montani, 2010) does not require the immediate creation of a supranational institution: in practice, it is similar to the informal rules of the game followed by central banks during the gold standard. Neither does it require the substitution of national currencies, as happened in the EMU. But it represents a first step towards a world monetary union because it can allow the overcoming of the so-called inconsistent triad, limiting the powers of national central banks, especially if the agreement is sanctioned by an international treaty and a World Council of Central Banks is set up. Since every national bank is bound to maintain a common inflation rate, the interest rates will converge and the exchange rate should remain fairly stable. Of course, a serious financial crisis cannot be fully avoided, as in the case of excessive national public debts (like the Greek crisis). But the creation of an effective unified monetary market can greatly reduce the risk of international investments, mainly in emerging economies, and the need for international reserves.

Other parallel steps in the fields of finance and fiscal policies should follow the creation of a world monetary union, as said before. Here, we limit ourselves to stressing how the supranational perspective can also change the cultural framework on the debate concerning the relationships between market and state. In his survey on fiscal federalism, Oates observes: “the essence of such systems is a combination of fiscal and market institutions that provides a set of incentives to individual agents for efficient behaviour. A relatively decentralized public sector, characterized by competition among jurisdictions in a setting of a common market without barriers to trade, can provide a powerful inducement for public decision makers to behave in ways that promote the welfare of their constituencies and sustain the efficient performance of private markets” (Oates, 2008: 183). In a centralized state, the market is usually conceived in opposition to state power. But the welfare of the citizens depends neither on the market alone, nor on the public sector alone. For
this reason the theory of market fundamentalism is wrong, and so is the theory of state fundamentalism, as the Chinese have well understood. A global market can provide greater welfare to all citizens and peoples of the world only if it is conceived not as an end in itself but as a means to provide more international justice, more economic stability and a clean environment. A new macroeconomic theory, if supported by efficient supranational institutions, can greatly contribute to providing these global public goods.

Appendix

Global Imbalances: a False Objective of Economic Policy

The purpose of this Appendix is not to once more explore how the external equilibrium of the balance of payments and the internal equilibrium – full employment with stable prices – can be attained, and whether they are complementary or alternative objectives of the economic policy of a country. Every international economics textbook deals with such a problem and the accepted conclusion is that there is a trade-off: lucky circumstances excluded, a national government cannot attain both objectives at the same time. On the contrary, our aim is to explore what is the best common policy for two countries (the world economy) if they decide to build a monetary union. It could be observed that the theorists of the optimum currency areas have already discussed this problem. Our attempt is to focus on a slightly different point of view: is there an optimum geographic area for establishing a balance of payments inside a monetary union? Usually, among different regions of a country, like Arizona and California, Bavaria and Baden Württemberg, there is no balance of payments. This problem is as old as international economics. In his famous essay on The Balance of Trade, David Hume observes: “had the Heptarchy subsisted in England, the legislature of each state had been continually alarmed by fear of a wrong balance”; and he adds that: “what happens in small portions of mankind, must take place in greater.” (quotation from Cooper, 1969: 29). Today, we should ask ourselves: why different nation states maintain a balance of payments in the global economy, and are so worried about external imbalances, while they are able to manage internal imbalances among their regions fairly well?

In order to look for a reasonable global policy alternative to the maintenance of national balance of payments, we shall discuss, first, the case of global imbalances caused by the free flows of capitals and workers in a global economy; secondly, the role of financial capital flows, and, finally, the case of global imbalances caused by per-capita income differences.

A – Global Imbalances and the Neo-Ricardian Theory of Economic Integration

When people talk about capital flows they refer to two different, but related, facts: capital looking for higher profit rates crossing state boarders – so that, if international mobility is possible, there should be a trend towards a uniform rate of profit in the world economy – and financial capital looking for the highest rate of return, or rate of interest, in different states, so that the final outcome is a uniform rate of interest in the whole economy. Here, we will not discuss the crucial problem of the relationship between the rate of profit and the rate of interest. This problem was analysed in depth by classical economist and modern economic theory. Here, our main concern is to clarify how cross-border movements of labour and capital affect the stability and efficiency of the economy.

In order to discuss this problem, we recall the Ricardian theory of economic integration, already elaborated in previous works (Montani, 2001; 2008: 87-94; 2010). Every international economics textbook starts from the fundamental Ricardian theory of comparative costs. Usually, the explanation of the Ricardian theory is founded on a model in which two closed economies –
England and Portugal – produce two goods, cloth and wine, with a certain quantity of embodied labour for each industry, but Portugal has absolutely lower production costs for both goods. At a first glance, international trade appears impossible, because England can only import goods from Portugal, but is unable to export its products. On the contrary, Ricardo shows that international trade becomes feasible and profitable for both countries, provided that only the goods are exchanged. *Capital and labour cannot cross the national borders.* The demonstration is based on the fact that each country specialises in producing the commodity with the higher relative labour productivity. In Ricardo’s example, it is advantageous for England to specialise in cloth production and for Portugal in wine production. Thanks to specialisation, each country can achieve, for an equal amount of working hours, a higher quantity of both goods, after exchange.

The Ricardian model well explains why two closed economies – the *mercantilist stage* – are interested in specialising and trading their goods, in this way starting the *free trade stage* of the world economy. But a third stage, a *common market stage*, usually not discussed in international economics textbooks, can be shown. In his chapter “On Foreign Trade” of the *Principles*, in effect Ricardo says that, if capital and labour can move freely from one country to the other: “It would undoubtedly be advantageous to the capitalists of England, and to consumers in both countries, that under such circumstances, the wine and the cloth should both be made in Portugal, and therefore that capital and labour of England employed in making cloth, should be removed to Portugal for that purpose. In that case, the relative value of these commodities would be regulated by the same principle, as if one were the produce of Yorkshire, and the other of London” (Ricardo, 1966: 136). In such a case, international trade becomes internal trade and commodities can be produced at an even lower cost than the cost achievable in the previous stage, the free trade stage, where the two countries specialised in the production of only one commodity. During the third stage of integration the two countries constitute a common market or a global economy.

We can represent the three stages of integration of the world economy in a more general way in the following figure:

![Fig. 1](image)

In fig. 1, the three stages of development of the world economy are represented on the horizontal axis; on the vertical axis $q_1$, $q_2$ and $q_3$ are the value of per-capita product related to each stage of development of the world economy. We should now note that the passage from the mercantilist stage (I) to the free trade stage (II) only requires the dismantlement of custom barriers, without the need for major reforms of international economy, but the passage from stage II to an integrated world economy is practically impossible without the construction of effective supranational institutions. Let us consider the following circumstances.

a) When the custom duties are reduced almost to zero in both countries a different internal distribution of income between wages and profits is probably in existence in each country. But if
the more efficient technologies of country A (to produce wine and cloth, or technologies AA) are freely available to entrepreneurs, and capitals and labours can cross the frontiers freely, entrepreneurs either from Portugal or from England will employ technologies AA instead of technologies BB (or AB, as in the free trade stage), and workers emigrate from the country with lower wages to the country with higher wages. If territorial differences in the costs of production exist, the creation of multinational firms becomes convenient. In a transitory phase, the multinational firm exploits the possibility of a lower cost of production in different economic systems and the imperfection of the market (for instance, a different rate of taxation). In stage II, where the free movements of factors of production were not allowed, the creation of multinational firms was not possible.

b) The emigration of workers and capitals from one country to the other can create major territorial imbalances. In Ricardo’s numerical example, Portugal has lower absolute costs in producing wine and cloth. Therefore, it may occur that all capital and labour in England will expatriate to Portugal. In a modern economy, were a national money, a banking system and a central bank exist, the national government of England can try to stop the exodus of capitals (and indirectly of workers) by rising the internal rate of interest. But, in the long run, monetary policy cannot remove a productivity gap. In the last resort, since it is in the interest of the two countries – entrepreneurs and their workers – to adopt the new AA technologies, with a greater per-capita product \( q_3 \) than the technologies of the free trade stage, it can become reasonable to create an economic and monetary union, in which capital and workers can move freely. This supranational solution can include a financial agreement to establish a solidarity fund to help the displaced workers to learn how to utilize the new technology. In such a way, a convergence process is set up among high per-capita regions and low per-capita regions.

To close this discussion, it could be interesting to note that the European economy – if taken into consideration as a world-economy – has experimented the three stages of development in the last century. Just after the Second World War, autarchy was the policy adopted by all European nation states: their money was not convertible and international trade was founded on barter, i.e. bilateral trade (stage I). Only during the Fifties, Europe of the Six was able to change the organization of the economy radically, creating a Common Market for commodities and making their national currencies convertible in the framework of the Bretton Woods system (stage II). At the end of the transition period, a new step forward was taken in the Eighties: the creation of the single market, for goods, services, capitals and individuals. And since a single market cannot work properly without a single currency, in the Nineties the Economic and Monetary Union was set up (stage III). In an Economic and Monetary Union national balances of payments, as an instrument of national economic policy, disappear.

B – Global Imbalances and Financial Capital Flows

The problem of international capital flows is widely discussed, but no agreement exists among economists on their effects. As far as the role of financial capital flows in relation to development is discussed, the conclusions are rather negative (Obstfeld, 2008; Report of the UN, 2009). On occasion of the recent financial crisis, the IMF sponsored a study on the feasibility of capital controls on the assumption that capital inflows towards emerging economies can cause serious problems (Ostry, Ghosh, Habermeier, Chamon, Qureshi, Reinhardt, 2010). Here, we try to demonstrate that international flows of financial capitals can be beneficial, even to emerging economies, provided that a world currency is instituted. One of the advantages of having a world currency is that the same idea of international reserves becomes outdated. Indeed, nobody usually proposes either to stop the flows of capitals among the regions of a state, even if different levels of development exist among different regions, or to create an internal “reserve currency” for
interregional payments. Hume’s observation that: “what happens in small portions of mankind, must take place in greater” is correct.

In order to discuss the difference between interregional and international flows of financial capitals we adopt the analytical framework proposed by Tibor Scitovsky (1969: Ch. 8). Let us imagine a world economy, with one currency and one central bank. The political system is federal, with two regional governments and one central government. Moreover let us imagine that our economy is in a state of simple reproduction, without growth. The national income is made up of the summation of household incomes and firm incomes. But each household and firm should not necessarily have their budget in balance: somebody is indebted, because the expenditures are greater than the earnings; somebody else has credits, because he/she spends less than what he/she earns. Nevertheless, in the entire economy, the sum of credits and debts should be zero. Now, we will consider three kinds of financial assets: perfectly transferable, imperfectly transferable and foreign assets.

In our federal state, composed of two regions, Bavaria and Saxony, we now imagine that all creditors live in Bavaria and all debtors live in Saxony. Bavaria will have a surplus in its current account and Saxony a deficit. Nevertheless, if financial assets – commercial papers, public bonds, company bonds, securities, mortgages – can circulate freely in the whole territory of the federation, the fact that Bavaria has a surplus and Saxony a deficit in the current account does not create intractable problems in the financial and credit market. The confidence of the creditors in their assets solvency does not depend on the region in which their debtors live. If the legal system of the federation is the same in both regions and works efficiently, there exist no reasons to fear insolvency caused by the debtor’s regional address. Within all countries, when business activities are taken into consideration, it may occur that a debtor is insolvent or a firm goes bankrupt. But nobody considers this event as the cause or consequence of a balance of payment deficit. If financial assets are perfectly negotiable in both regions, their value and their rate of return do not change according to the place in which they are held occasionally. In the long run, when creditors collect their money from debtors, the surplus in Bavaria and the deficit in Saxony disappear. If financial assets are perfectly transferable in the entire economy, a balance of payments problem does not exist.

Scitovsky considers this first case as “the ideal situation”; the “general case” is more realistic. Let us imagine that the ideal situation is upset by a slight economic crisis centred in Saxony: some firms are not able to sell their products and they dismiss some workers; it may even happen that a certain number of firms goes bankrupt. In this new situation, the financial assets, which come from Saxony, are considered insolvent or run the risk of insolvency. In Bavaria, creditors will accept financial assets from Saxony only if debtors pay a higher interest rate (higher than the previous average interest rate) or the value of the assets is reduced. Therefore, the rates of interest become different in Bavaria and Saxony where the debtors are obliged to pay a higher interest rate for the credit they need. This lack of confidence in Saxony’s assets will have an impact on the real economy. A greater quantity of Saxony’s income – where disposable income and employment decrease – should be paid to Bavarian citizens, where disposable income and employment increase. Bavaria’s current account surplus and Saxony’s deficit will increase. The existence of imperfectly transferable assets emphasizes short-term imbalances. However, in the long term some re-equilibrating forces will start up. Consumers and firms in Saxony are obliged, by the higher interest rates paid and by the lower disposable income, to reduce their expenses and consumption (of Bavarian products too; therefore Bavaria’s surplus will be reduced). In Bavaria, the greater disposable income will allow the increase in consumption (of Saxony’s products too; therefore Saxony’s deficit will be reduced). Moreover, some displaced workers from Saxony emigrate to Bavaria, in this way levelling the wage rate in the two regions. Some Bavarian capitalists may decide to invest in Saxony, where the rate of interest is higher, reducing in this way the gap between the two rates. At the end of the process, Bavaria is a little richer and Saxony a little poorer. But these real effects do not represent an obstacle for Saxony’s debtors to pay their debts –
capital and interests – to their Bavarian creditors. In the long run, the balance of payments will be in equilibrium again, even if a standing difference in per-capita income between the two regions may survive. On the other hand, something similar – if a mass panic is excluded – should happen in a country where debtors and creditors are mixed up in a single administrative constituency and where, in the financial market, perfectly and imperfectly transferable assets are negotiated every day.

Now, let us consider the case in which Bavaria and Saxony are not two regions of a federal state but two sovereign states, with a national currency and a national central bank. In this new political environment, financial assets of a foreign state can be traded in the other country only if they are evaluated in national currency. Unavoidably, the rate of exchange enters into the evaluation of the financial assets, which can no longer circulate freely between the two “regions” (or “states”). If two national currencies exist, the Bavarian businessman accepting an asset denominated in Saxony’s currency runs an extra risk: a change of the exchange rate. Indeed, at the expiration of the debt, it may occur that Saxony’s currency is devalued (i.e. with a unit of the Bavarian currency it is now possible to get more unities of Saxony’s currency). This means that the Bavarian creditor, when changing his asset denominated in Saxony currency into Bavarian currency, can get less local currency and can buy less commodities. Therefore, a foreign asset involves a supplementary cost compared not only to perfectly transferable assets, but also to imperfectly transferable assets. The integration of the financial market of the two “regions” (or states) becomes practically impossible because a decision of one “sovereign” national government can change the value of the credit (or debt). In the last resort, when two countries have their own currency, the national governments can decide to make the national currency inconvertible, cutting the value of assets in the hand of foreign creditors down to zero.

This analysis is useful to understand some problems of the global financial market. The Asian crisis of 1997-98 has shown the so-called phenomenon of a “double crisis” – i.e. a banking crisis and an exchange rate crisis – with major consequences on GDP loss. On the other hand, it is difficult to object to the fact that the flows of capitals from industrialized countries to emerging economies in Asia, Africa and Latin America have contributed to their development in the last thirty years. The proposal of stopping cross-border financial capitals – for instance with a Tobin tax – if it becomes effective, runs the risk of killing the patient. The real solution is to increase the integration of the world financial market, by eliminating the main cause of risk, i.e. the possibility that private speculators or public authorities manipulate the rate of exchange. Even if the creation of a world money is not possible for tomorrow, some important steps towards this goal can be taken. Experience shows that a deep integrated financial market is in itself the solution to regional imbalances. Scitovsky observes that the very existence of transferable assets substitute the mobilization of reserves in the banking system. “Here then is a large part of the explanation of why the balance-of-payments equilibrium is so easily and automatically maintained between different regions in the United States. Any imbalance between one region’s exports and imports is automatically balanced by an offsetting imbalance between that region’s inflow and outflow of assets: … These equilibrating autonomous asset flows explain balance-of-payments equilibrium between the regions of a country in the short run – and the short run in this context can last for years” (1969: 96).

One can object that the substitution of bank reserves (or international reserves) with transferable assets is possible among the regions of the United States because a national financial market has been set up in the US. But a similar result can be obtained even among different states, providing that financial integration is sponsored by public authorities and not hampered by exchange rates changes. Ingram has studied the interesting case of Puerto Rico, a country associated to the USA, even though it is not a state of the American federation. In fact, since the dollar is the money of Puerto Rico, its internal financial market and US market are deeply integrated. “Use of a common currency in the two regions – Ingram observes – is a point of strength, since outflows of currency provide their own exchange, so to speak. Such ‘points of contact’ serve virtually to guarantee that, at least in the short run, payments between Puerto Rico and mainland are not in
danger of interruptions and uncertainties arising from the exchange or transfer process” (quotation from Cooper, 1969: 89). Ingram concludes that: “Our analysis of the Puerto Rican payments system suggests that, if nations desire to minimize payments pressures and related problems, they should seek to unify rather than separate the markets for ‘domestic’ and ‘international’ claims” (quotation in Cooper, 1969: 93).

From these experiences two teachings can be drawn, one for Europe and one for the world economy. In Europe, the re-equilibrating mechanism of the internal balance of payments among member countries is imperfect and could be greatly improved if the EMU is coupled with a Financial Union: for instance, by giving the EU the power to issue Union Bonds to finance the Community budget. A study on this crucial issue proposes to create a euro-area bond market, pooling national public debts, equal to 60 per cent of the euro-area GDP (about 5,600 billion euro), “which is about five times the current market for the German Bund and almost as large as the US Treasury debt market (about 8,300 billion dollars)” (Delpla, von Weizsäcker, 2010: 4). This reform not only makes payments among member states easier, but the European economy and the euro can also become as strong and credible as the US economy and the dollar in the global financial market.

The second teaching concerns the reform of the international monetary system. If the main industrialized countries, eventually including China, India and other emerging economies, decide to harmonize their monetary policies, for instance agreeing on a common inflation targeting (as suggested in the text above), the stability of the financial and exchange rate market will be greatly increased. If a group of countries manage their monetary policy as if a world money existed, the flows of capitals in the world economy would take place without fearing a new dramatic exchange rate crisis.

C - Global Imbalances and the Keynesian Equations of an Open Economy

Now let us consider the relationship between the national income and the balance of payments, assuming that the prices of goods and services are given and that there is no mobility of financial capitals and workers between the two regions: we will consider a short run situation. Following the usual notation of the Keynesian system of national accounts, we can write the net national product or the national income (Y) as:

\[ Y = C + I + G + Ex - Im \]

where C is the consumption of goods and services, I are the net investments, G is the total government expenditure, Ex are the national goods and services bought by the rest of the world and Im are the imports. The national income Y is distributed among wages, interest, rent and profits. Households and firms can dispose of their income, after having paid taxes T, buying goods and services C, saving a share of income S, or importing goods and services from abroad Im. We can therefore write the income disposed of as:

\[ Y = C + S + T + Im \]

At the end of a certain period, the total amount of the income produced in the country should be equal to the total income disposed of, i.e.:

\[ C + I + G + Ex = C + S + T + Im \]

And, if we now suppose that the government budget is in balance, i.e. that G = T, we can write that:

\[ (1) \quad I + Ex = S + Im \]
If we consider equation (1) as the description of what national households and firms intend to save and imports, and of what foreigners intend to spend for goods and services produced in our economy, the two sides of this equation are equal only ex-post, because the intentions of different groups of people are not necessarily equal ex-ante. Therefore, equation (1) shows the equilibrium condition in the national income.

An alternative way to consider the same condition is the following:

\[ S = I + CA \]

where \( CA = Ex - Im \) is the current account. Equation (2) shows that the internal saving should be utilized to finance the investments and the surplus of the current account, so that a surplus can be considered a way to finance investments abroad; a current account deficit shows that the national saving is not enough to finance national investments; they are to be financed by external saving.

Let us now consider a world economy (or a national closed economy). In such a case exports and imports do not exist, therefore the equilibrium condition is that \( S = I \). Our world economy consists of two regions, inhabited by the same number of people: Region A includes people with a per-capita income lower than the average per-capita income of the world economy, and Region B includes people with a per-capita income greater than the average (as happens among the Mediterranean countries and the Northern countries of the EMU). Wages and profits are lower in Region A than in Region B: indeed, we consider a short period, when the forces equalizing wages and profits are not active. Of course, between the two regions there is some trade, but Region A is less efficient and competitive than Region B: therefore Region A has a CA in deficit and Region B a CA in surplus. In order to see what is the appropriate economic policy for the two regions, we need to know the behaviour of the effective demand in Region A (and B) in relation to income:

\[ D_A = C(Y_A) + I + Ex(Y_B) - Im(Y_A) \]

of course, the equation for the effective demand of Region B is similar, but with \( Y_B \) in place of \( Y_A \).

For our analysis, the investments can be taken as given. Consumptions are an increasing function of income and the propensity to consume is less than unity. The exports depend on the size of income in Region B, while the imports depend on internal income \( Y_A \).

Now we consider the behaviour of the current account:

\[ CA_A = Ex(Y_B) - Im(Y_A) \]

If we consider the behaviour of the current account in A, the exports should be taken as given, since they depend on the income in B. Therefore, the \( CA_A \) function is a sloping down line, because from a given quantity of exports a growing quantity of imports is subtracted as income grows.

Finally, we are able to draw the two functions for both Regions in the following figure:
Let us consider the functions in this figure. $D_A$ is the effective demand for Region A. It is equal to the sum of Consumption, Investment, Exports minus Imports. Where the $D_A$ function crosses the 45° line, we find the equilibrium level of income $Y_A$ (which is not a full employment level) for Regions A; $Y_W$ is the average world income (or per-capita income, since the two Regions have an equal number of inhabitants). In the graph below, the function of the current account for Region A has been drawn. The $CA_A$ is equal to zero at the level of income $Y_0 < Y_A$. Therefore at the level of income $Y_A$, Region A has a current account deficit equal to $GH$. Region B has a level of income equal to $Y_B$. This level of income is greater than $Y_W$, the average per-capita income of the world economy and, at $Y_B$, Region B has a current account surplus equal to GH. Of course, as shown in equation (2), in Region A, since $CA$ is negative $I > S$; and in Region B, where the $CA$ is positive, $S > I$. Region B exports its saving to Region A.

Now, let us consider, in Region A, a policy whose goal is to bring the external balance into equilibrium, eliminating the $CA_A$ deficit. Since the level of exports depends on the behaviour of Region B’s consumers and firms, the only possibility to reduce the deficit is to lower internal demand, i.e., consumption and investments, so that $D_A$ shifts downwards. Therefore, $Y_A$ should decrease until $Y_0$ and $Im(Y)$ decrease. At the same time, in Region B, exports fall to zero – the $D_B$ function shifts downward; the $CA_B$ function shifts leftwards. Note that when CA is zero in the two regions, $S = I$, i.e. in each region a new equilibrium income is reached, but for the whole economy the new equilibrium level is at $Y_1 < Y_W$, because the average income of the world economy is lower than the original one, due the income fall in Region A and Region B. The same result can be obtained should Region A introduce customs duties (not allowed in an economic and monetary union) in order to increase the prices of imported goods and services. The increased prices cause a fall of the effective $D_A$ demand and a fall in exports and the effective $D_B$ demand of region B. The
general rule is that a policy reducing exchanges among regions or states causes a fall of world income.

It could be interesting to consider the case in which the two regions have its own money, like a nation state. In order to lower its deficit, Region A should devaluate its money so that its exports towards Region B increase. If the Marshall-Lerner conditions are satisfied, \( D_A \) shifts upward and \( D_B \) shifts downward. The devaluation should continue until the deficit in A is completely eliminated. At this point, the surplus in Region B will also be reduced to zero and in the two regions \( S = I \); i.e. a new equilibrium income will have been reached. However, the new average income for the world economy cannot be \( Y_W \) but a lower one, because if the cause of the deficit in Region A is the lower capacity of their industries to compete with the industries of Region B, the devaluation of A’s money has only caused a shift of demand from more efficient productions to less efficient ones. The world economy is poorer because of a worsened division of labour. In such a case, the optimum currency area is not the region, as Mundell (1961) maintained.

To sum up, when the deficit and surplus among different regions are caused by structural problems – like different labour productivity, administrative inefficiencies, lack of efficient social services and communication networks, etc. – the most appropriate policy is a common (world) policy to reduce the gap in per-capita income, as the European Union has done with its regional policy and social-cohesion policy. Remembering that usually a low per-capita region has also a higher rate of unemployment (if compared to the average rate of the whole economy) the long-term policies to ease regional convergence are the most appropriate kind of government intervention to eliminate structural deficit and surplus among regions.

Now we will take into consideration the case in which Region A has a higher per-capita income than Region B and has a current account deficit (like the USA). One of the causes of the external disequilibrium is the difference in labour cost, since in the poorer region wages differences (compared with Region A) are several times lower than the productivity gap. Region B has a lower per-capita income and a current account surplus (like China). We can depict the situation of the world economy in fig. 3, as follows:

![Diagram](image_url)

Fig. 3

In fig. 3, the situation of the current account of the two regions is represented (but not the \( D_A \) and \( D_B \) functions). Region A has a deficit and Region B has a surplus. The per-capita income of Region B is lower than the world income \( Y_W \). If the aim of the economic policy is to eliminate the deficit and surplus of the current accounts, Region A should reduce its consumption and investments until its income decreases from \( Y_A \) to \( Y_0 \). But the reduction of the imports of Region A means a reduction of the exports of Region B. Therefore the \( CA_B \) function shifts leftwards (and \( DB \) – not represented in fig. 3 – shifts downwards), until a new equilibrium level of income – lower than \( Y_B \) – is reached. Now, in the two regions \( S = I \), but the level of per-capita income is reduced in both regions. The world is poorer.
Now, let us consider a case in which every region has its own money and its central bank. The external disequilibrium can be eliminated if Region A devalues its money and Region B appreciates its money. For Region A, to import from Region B becomes more expensive, but it can export more goods and services. The CA inflow of Region A is eliminated and the income of Region A increases to YA*. In Region B, the appreciation of its money causes an increase in imports and a reduction of exports. The CB outflow of Region B is eliminated and the income of Region B widens. From a world point of view, if convergence of per-capita income is considered an objective of world economic policy, national monetary areas cannot be considered a good solution. Moreover, it should be noticed that the adjustment based on flexible rates of exchanges works well if Region B can absorb all the new exports coming from Region A. But this outcome is doubtful because of the lower level of per-capita income in Region B. For instance, if Region A is specialised in exporting luxury goods, it is possible that a larger market in Region B does not exist for this kind of commodities.

To conclude, if the surplus of Region B is due mainly to its low wages and production costs, the long run solution is the growth of per-capita income and wages in Region B compared with Region A. A world policy to favour the development of poor countries is the best policy for the elimination of global imbalances.

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