FRI-2G.404-1-EM2-07

OPTIMAL CURRENCY AREAS AND GLOBAL MONETARY ARRANGEMENTS: A CRITICAL ASSESSMENT [22]

Pr. Assist. Prof. Petar Penchev, PhD
Department of Economics and International Relations,
University of Ruse "Angel Kanchev"
Tel.: 082 888 557
Email: ppenchev@uni-ruse.bg

Abstract: *The theory of Optimal Monetary Areas (OCA) was introduced by Robert Mundell. It explores the way in which different geographical regions can benefit from using a common currency. Mundell pointed out four conditions necessary for the existence of an OCA: labour mobility, price and wage flexibility, fiscal transfers, and synchronized business cycles of the different regions. Production diversification was later added to the previous four. These criteria show the difficult balance between monetary stability, fiscal independence and capital mobility. The interactions of these five components is called Mundell's trilemma. One common currency can often increase efficiency. However, regions in an OCA are likely to face asymmetric shocks. The European Monetary Union (EMU) is an example of an OCA. The crises in Greece, Ireland and Spain reveal the risks of the EMU. Dollarization, euroization, and currency boards are alternative models, which also show flaws concerning resilience to shocks. This paper reviews these cases and assesses their outcomes. On one side OCAs promote trade, stability, and integration, but on the other they also create vulnerabilities, especially when political and fiscal integrations are not complete. The study confirms that OCA theory remains crucial for understanding modern monetary systems and their geopolitical complexity.*

Keywords: *Optimum Currency Area (OCA), Mundell's Trilemma, Monetary Integration, European Monetary Union (EMU), Asymmetric Shocks*

INTRODUCTION

The theory of Optimal Currency Areas (OCA) was introduced by Robert Mundell (Mundell, 1961). The theory analyzed when is it useful for countries or regions to share a common currency. Mundell found four conditions which must be satisfied in order to achieve an OCA: free movement of labour, flexible prices and wages, fiscal transfers across regions, and similar business cycles. Later research added other factors, such as production diversification and stronger institutions (Broz, 2005; Baca, 2021). The eurozone, for example, shows both the benefits and the risks of a shared currency. On one hand, it supports trade, stability, and integration. On the other, crises in countries like Greece and Spain showed the costs when shocks are not evenly spread (Howarth, 2020; Beck et al., 2025). Other examples of OCA are currency boards, dollarization, and euroization. These approaches reduce uncertainty but limit national control over policy (Kekre, 2022).

EXPOSITION

The theory of Optimal Currency Area (OCA) was initially developed by Robert Mundell (Mundell, 1963). According to Mundell some geographical regions can benefit from a common currency. These regions can be whole countries, parts of countries, or even groups of countries. The OCA is supposed to encourage trade and efficiency without depriving the different regions from maintaining flexible exchange rates with the outside world.

Mundell (1963) proposed four main criteria for such a currency area. He suggested that labour should move across the regions without any limitations. This would help balance employment across its all parts. Next is that prices and wages must be flexible. These two criteria together with the free capital flows would help with the overcoming of trade imbalances. On a third place, there should be a central fiscal mechanism to reallocate funds to those regions which are in need. This is a hard task because the richer regions are usually reluctant to help with their own funds. The fourth assumption is that, regions should have similar

[22] This research was conducted within the framework of project 2025-BM-01 "Transformation of Socio-Economic Systems through Integration and Digitalization", supported by the Scientific Research Fund of the University of Ruse "Angel Kanchev".

business cycles for the OCA to exist. When cycles are different, a common fiscal policy may fail (Sun et al., 2022).

Kenen (Kenen, 2000) added a fifth factor. He suggested that a diversified production across the region is also a necessary part of the OCA. This reduces the impact of shocks specific in different sectors. Recent academic works supports the ideas given by Kenen. For example, Sun (Sun, 2022) develops a time-varying OCA index for the euro area. Beck (Beck, 2025) identifies the regions which benefit most from monetary unions. He uses a variance decomposition. Mundell's trilemma says that an open economy can achieve only two of three goals at a time: a fixed exchange rate, independent monetary polic, and free capital mobility. It is impossible to get all three simultaneously.

Rey (Rey, 2015) suggests that the trilemma is in the process of evolving into a dilemma. According to him, the capital flows under the global financial cycle limit monetary autonomy even in floating regimes. Empirical studies support this shift. Herwartz (Herwartz, 2017) finds that many countries adopt strategies with partial capital controls or managed floats. Ligonnière (Ligonnière, 2017) shows that in open economies international banks and investors put pressure on monetary autonomy.

We can conclude that the trilemma is still useful, but must be seen in a modern context. Today's economies face stronger external forces. The need additional policy tools apart from mere exchange rate or capital restrictions.

There are various forms of monetary agreements across the world:

The members of the European Monetary Union (EMU) use the euro as a common currency. Countries in different parts of the world have abandoned their national currency and substituted them with the US dollar. The process is known as dollarization. There are countries like Ecuador, El Salvador, Panama, East Timor, the Marshall Islands, Micronesia and Palau that use the US dollar (Thimann, C. 2004; Ocampo, E. 2025). Some countries accepted the euro without being admitted in the eurozone officially. This phenomenon is known as euroization. Kosovo and Montenegro are such countries (Kapsoli & Ozturk, 2025; Razmi, A. 2022). Obviously, the processes of dollarization and euroization are attempts of certain countries to improve their monetary stability, policy autonomy and economic integration.

Currency Boards and Pegged Regimes

Currency boards are monetary arrangements where a national currency is fully pegged to a foreign currency, usually a vehicle one. The money supply in the national currency is supported by foreign reserves. The volume of the reserve is at least as much as the money supply in national currency. Countries with such a regime have no ore little possibility of independent monetary policy and their central banks are very restricted.

There is a dollar currency board in Hong Kong. The Hong Kong dollar maintains a tight peg (HK$7.75–7.85 per USD), backed by a huge USD foreign reserve. The Hong Kong Monetary Authority intervenes when rates near the band limits. (HKMA, 2024; IMF, 2001; BIS, 2013).

The currency boards in Bosnia and Bulgarian use the euro as a vehicle currency and their national currencies are pegged to it (Penchev, 2025). There a many scientific studies, which argue that these boards have helped the countries to stabilize their economies and reduce inflation (Begović, 2016; Topić Pavković, 2023).

Many other countries maintain a peg to the US dollar without having full currency boards. Such examples are United Arab Emirates, Saudi Arabia, Bahrain, Barbados, Jordan, Aruba and others (IMF, 2016).

There are two basic types of currency boards: orthodox and unorthodox ones. Orthodox versions have full backing and strict rules, like the Bulgarian one (Penchev, 2025). The unorthodox ones allow some flexibility (Prihodanski, 2023). Such a one which is still in use we find in Bosnia and Herzegovina.

Financial Sustainability of the OCA

When a monetary area is not optimal, it is prone to financial fragmentation. Economic shocks can arise because the uncertainty in some of the regions is increasing.

The introduction of the euro showed both benefits and risks during the first years. There were

favourible credit conditions and low interest rates between 2000 and 2007. This supported rapid growth across Europe. However, imbalances started to appear. Spain experienced a real estate bubble. Greece accumulated high levels of government debt (Kosuliev, 2024). Then the global mortgage crisis started in 2008. This favourable environment came to an end (Fagan, 2020).

The crisis revealed the system was not perfect. The sovereign debt crisis gradually grew to a banking crisis. Krugman (Krugman, 2013) stated that the arising asymmetric shocks led to disbalances and even to tension among the EMU members. A single currency provides stability and integration. But it also deceases the possibilities of the national currency to adjust to the local problems. There are geopolitical risks of the financial fragmentation (Penchev, 2025). In addition to that there is a clear destabilizing impact on sustainability caused by asymmetric shocks on the euro area (Penchev, 2021). Apart from those processes of de-dollarization are taking place in different parts of the world (Todorova, 2024).

CONCLUSION

The OCA concept remains vital for understanding monetary integration. The euro provides stability and efficiency but sometimes asymmetric shocks are inevitable. These challenges are of economic but also of geopolitical character. However, this fragmentation threatens European unity. Countries which are part of the dollarization and euroization or have introduced currency boards demonstrate financial stability. Very often though, the lack of autonomy is a challenge to them. The future of monetary unions relies on the resilience against shocks.

Global monetary arrangements like **dollarization, euroization, and currency boards** are obvious alternatives to OCA. Each of these alternatives reduces uncertainty but also limits monetary autonomy. The balance between national sovereignty and collective stability will be open issue even in the future.

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