Role of Private Sector in reducing the Current Account Deficit : Evidence from India

Abhinav Surya L T

Centre for Development Studies

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Abstract

India's mixed experiences with reforms has created as many issues as achievements. One such issue is the widening Current Account Deficits. Hasty "opening-up" has meant that the industrialized nations have always been more capable of exploiting India as a market better than India has been able to access the markets abroad. This has led to constantly widening deficit in Merchandise trade. But such effects of the privatization and liberalization policies are also bridged by the private sector. In this study, we understand the components of India's Balance of Payments. We clearly establish that it is the private sector - in services export, foreign investment, and remittances - which bridges the current account deficit. We also then proceed to briefly discuss the factors related to the achievements and drawbacks in the process of development of the sectors associated with these components.

Keywords: Current Account Deficit, Balance of Payments, Service Export, Foreign Investment, Remittance

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1 Introduction

India's experience with reform and liberalization can be termed as one of the few case studies of success in the world, with the economy growing at a rapid pace, even breaching the 9% mark on multiple years in the mid-2000s. The liberalization of exchange rates and current accounts has aided the country in procuring technologically advanced commodities and services from the world market. Especially the advancements in telecommunications sector post liberalization, coupled with educationally sound population helped India to emerge as a key player in the trade of services. But this process of growth is not without controversies. Informalization of jobs, lack of generation of employment, lack of distribution of benefits of growth, continuing poor human development indicators and hunger, accentuated rural and agrarian crisis, de-industrialization of growth process are some of the major accusations placed against the post-reform development path.

One such concern is regarding the current account deficit (CAD). Opening up of the economy to the anarchy of the world market has meant that there is little room for policy makers for interventions. The liberalization of trade was proclaimed to help the local producers become competitive and open up new markets for them to sell their products. But it has left the producers at the mercy of the fluctuations in international market prices, especially for primary products. Moreover, riding the wave of expanding global trade and rising oil prices in the beginning of the twenty-first century, India became extremely reliant on exports of primary and resource-based products such as refined-petroleum, which later ended up severely affecting India's export values due to the fall in oil prices in the second half of 2010s. On the other hand, imports of merchandise goods increased tremendously as a result of liberalization, amply aided by the increased imports of wide range of manufactured commodities. Ghosh (2015) argues that, such a phenomenon could partially explain the extremely slow growth in non-agricultural employment, and the inability of the formal sector to absorb the surplus rural labour. India's extremely slow transformation towards manufac-

turing and exports of high-tech and high-skilled commodities, and lack of dynamism with respect to labour-intensive processes has meant that Indian commodity exports were never capable of matching the imports. This has led to a large merchandise trade deficit, and a subsequent current account deficit. In the post-reform era, barring a few quarters, India has never been able to maintain a positive balance in merchandise trade, and has been able to achieve positive current account balance on very few occasions. During a few years at the start of the twenty-first century, India maintained a current account surplus as a result of the muzzled domestic demand due to the dot-com crisis. This, along with the beginning of rising foreign investment flow, prompted scholars to hastily announce the success of liberalization project (Shah & Patnaik (2007)). But the post-2004 experience shows a picture of increasing struggle to bridge the current account deficits.

A consistent current account deficit implies that there is widening gap between domestic savings and investment, which is to be bridged by foreign investments and borrowings. Consequently, capital flows were also progressively liberalized throughout the 30 year period post reforms. While the foreign capital inflows did contribute to a significant extent in enhancing efficiency and improving technological content, particularly in the services sector, it came at a cost. A significant portion of the capital flows arrived simply with the aim of exploiting the low wage labour in India, only executing low value-adding assembly processes, leaving no room for technological enhancements. But more importantly, it severely contributed in loss of economic sovereignty, especially with the liberalizations in portfolio investments, which are highly speculative in nature. Reliance on such funds to bridge the CAD has meant that, Indian policy-makers are forced to satisfy the requirements of global finance capital. Global finance, which views any State investments and spending as "crowding-out" private investments, and potentially capable of inducing decline in interest rates due to debt powered deficit financing. Hence, "fiscal conservatism" becomes the rule. Although the first area affected is people's welfare, such fiscal conservatism also means that the State's contribution

in capital formation and infrastructural development is hampered, which further hampers growth. Curtailing fiscal deficit has also led to the State's disinvestment of Public Sector Units (PSUs) to mobilize funds, as seen from the recent spree of privatization of even the profit making entities. Such measures further weakens the economic sovereignty, as the State is rendered completely incapable of intervening in markets, to even control prices. But despite such shortcomings, disinvestment of PSUs is strongly recommended by the advocates of liberalization (Ahluwalia (2002)).

But, the above discussions has amply made it clear that, although the significant widening of current account deficits is a direct result of the policies of liberalization and privatization, it is also the private sector that bridges this gap, albeit being subject to the anarchism of the international market and global finance capital. In this study, we emphasize the role of private sector in bridging the current account deficit. One such component, as discussed earlier, is the foreign private investments. This arena has been liberalized to a significantly greater extent, to recently allow 100% foreign investment even in defence production. But, apart from this, even within the Current Accounts, the components other than merchandise trade generates surpluses. One of the most important component is the remittances earned. The large pool of middle and working class people, sending their earnings back to their family in India, has not only helped reduce CAD, but also significantly contributed in the nation's development. Yet another component is the trade in services, which generates large surpluses. Although both private and public players are engaged in this area, in this study, we show that it is the trade in Computer and IT services which generates the largest amount of surpluses, which is entirely dominated by private players.

2 Literature Review & Analytical Framework

Global literature on CAD throws a diverse set of thoughts. For instance, Sachs *et al.* (1981), by analysing the CAD of various countries in the 1970s, concluded that fixed investments play a role in CAD. The study strongly emphasised on the inter-temporal phenomenon associated with CAD, and claimed that a large CAD signals investment opportunity, and claimed that as long as this investment is taking place, it is not a matter of concern. But the multiple Balance of Payment crisis in several developing countries in the subsequent years weakened such a theoretical approach. Subsequent studies started focusing on "sustainability" of CAD on top of inter-temporal solvency. These studies often involve complex econometric analysis to understand the important factors leading to the sustainability (or a lack thereof) of large current account deficits. Milesi-Ferretti & Razin (1996) focused on the willingness to lend and willingness to pay off debt for each economy. Kamin *et al.* (1988) clears the misconception that currency devaluations in the face of large CAD will immediately result in increased capital flows due to increased interest rates. Edwards (2004) stresses on the role of portfolio asset allocation. Such studies on sustainability have been performed for the case of India as well (Tiwari (2015)).

Although this study is not focused on such an extensive empirical exercise, these studies help us understand the importance that ought to be attributed to CAD. Therefore, this study focuses on the various components of India's Balance of Payments (BoP). As stated earlier, India has been running increasing current account deficits (sometimes close to 5% of GDP) since the 1980s. We try to understand the components of India's current accounts responsible for such an increasing CAD. We also try to understand the components in India's overall BoP which helps bridge this CAD. We then briefly analyse the hitherto established achievements and shortcomings of the sectors associated with each component.

3 India's Balance of Payments

Figure 1 [1] shows value of Current and Capital account balances (with growth rate in certain periods) over time. It is supplemented by Figure 2, which gives these balances as a percentage of nominal Gross Domestic Product (GDP). We clearly see that, CAD, after remaining at a manageable level for most part of the 1990s and early 2000s, there is a sharp reversal beginning in 2004-05. From there, it proceeded on a declining trend till 2012-13, when it reached very close to the danger zone of 5% of GDP. It significantly eased to around 1.67% of the GDP in the following year, post-which it has been wavering around the 1-2% mark.

The capital account, after remaining stagnant in the 1990s, began to rapidly increase since the 2000s. Led by the global boom in capital flows, it increased to a record high of 8.7% of GDP in 2007-08. But it sharply declined the following year, after the global financial crash. Although it partially recovered the following year, as a percentage of GDP, it has been on a partial declining trend since then. It is remarked that the worsening of CAD (as % of GDP) towards the 5% in 2012-13 mark created aversion among investors. But, till 2012-13, Capital Accounts continued its recovery, reaching a high of 4.9% of GDP. It contracted in 2013-14, when the CAD actually improved significantly.

Figure 3 presents the major components of CAD as a percentage of GDP over time. From the figure, we clearly see that although the "Income" component, consisting primarily of reinvested earnings of Indian firms' investment abroad and compensation of employees, induces a marginal negative trend, the bulk of the negative trend induced to CAD comes solely from the merchandise trade component. The merchandise trade continued to become increasingly negative until 2013-14, after which it eased slightly, contributed generously by the fall in oil prices.

[1] All tables and figures provided at the end

On the other hand, we see that the net "Invisibles" income is positive throughout. The most consistent contributor to this positive trend is the "Transfers" component, which primarily consists of remittances from Indian migrants abroad. This component has been very consistently earning foreign reserves, contributing to 2-3.5% of GDP continuously for a long period of time. The other component that has emerged to dominate the current accounts is the net income from "Services" export, which reached a high of 4.5% of the GDP in 2008-09. Now it has replaced remittances as the largest positive component of current accounts.

Figure 4 shows the relevance of components on the capital accounts side. From the turn of the century, till 2007-08, we see that more or less all the components were on the increasing trend. As a result, Ghosh (2015) remarked that "India's growing external reserves were effectively borrowed rather than earned, as they increased because of capital inflows - portfolio inflows and external commercial borrowing". But, the global financial crisis (GFC) changed the situation. Since GFC, although FDI inflows have stabilized in the $\sim$1.5% mark, FPI inflows have been extremely volatile. External borrowings ("Loans"), after declining till 2015-16, has begun to rise again. These trends are a serious concern for an emerging giant like India.

To understand the importance of each component in bridging the CAD, Figure 5 plots the ratio of net inflows from each positive component of BoP to the merchandise trade deficit (since it is the largest and most significant negative component). Figure 6 shows the condition of CAD (as a percentage of GDP) minus each of these components. From these plots, we clearly see that "Transfers" and "Services" are the two most important components in reducing the CAD, followed by FDI inflows. FPI inflows play a negligible role, and on occasions, CAD improves when FPI is deducted.

To measure the stability of these inflows, Table 1 provides the mean, standard deviation

and coefficient of variation for each component's ratio with GDP in the post-reform period (here, by taking a direct average, without weights, we assume that the component-GDP ratio for each year has equal weightage, regardless of the gross value of the inflow. This is justified, as it is the relative balance to the economy that determines the relevance). We clearly see that the "Transfers" component has both higher mean and very low coefficient of variation. Therefore, remittances has been the most important and most reliable source of inflow in the post-reform period, in bridging the deficit due to merchandise trade, followed by services and FDI. FPI has not just been the least effective (lowest mean), but has also contributed significantly to the volatility (highest coefficient of variation).

From the above discussion, we clearly understand the important component that causes the CAD (merchandise trade) and that bridges the CAD (services trade, foreign investment inflows and remittances). We shall, in brief, discuss the developments in each of these sectors in the the upcoming sections.

It is very clear that "remittances" and "foreign investment inflows" take place on private account. To cross-validate this observation, we plotted the aggregate CAD, aggregate Net FDI, aggregate Net FPI and aggregate Remittances for a set of seven international developing nations from different continents - Argentina, Brazil, Chile, Egypt, Indonesia, Mexico and South Africa. Each of these countries ran a negative Current Account Deficit in the 2010s. From Figure 7, We see that, even for these countries, the components that bridges the CAD are foreign investment inflows and remittances, which take place on private account.

In case of "services", we shall discuss the role of private players in India, in the relevant section.

4 Merchandise Trade

As the component responsible for the widening, this section briefly understands India's merchandise trade deficit.

All the plots in Figure 8 convey the sound message that India's imports have been growing much faster than exports since liberalization. Such a trend was anticipated even in the early stages of liberalization, in *The India Infrastructure Report*, which stated, "It is suggested that a sustainable level of current account deficit would increase from the current level of 1.5 per cent of GDP to 2.5 per cent in 2000-01 and 3 per cent in 2005-06" (on the Commercialisation of Infrastructure Projects (India) *et al.* (1996)). Although the values did not match, the trend of widening CAD continued. This was understood to be as a result of greater reduction in the import duties of intermediaries, as it ended up favoring the import-competing sectors (Dastidar (2015)). Moreover, given the deteriorating terms of trade against developing countries globally, such a trend was expected.

India's policy shift from import-substitution to export-promotion was rationalized citing the examples of East Asian giants like Singapore, Taiwan, Republic of Korea, etc, which had earlier developed their economy based on these strategy. But such a policy shift was implemented during a period of Neo-liberalization, when the state was beginning to increasingly withdraw from all spheres of the economy. The case of East Asian giants is actually a story of strong state intervention for capacity building, to emerge as an important exporting nation. It is now recognized that the link between global outward orientation and improved export performance applies to only certain countries (like the East Asian nations), and it is more of an exception than a rule (Chandrasekhar (1997)).

The overall problems with India's merchandise export composition is well-known. India is still heavily reliant on primary or resource based or low skilled export commodities like ex-

port of refined petroleum, or gems & jewellery. India's transition towards High and Medium tech exports have been relatively slow. These exports have also been led by sectors which erstwhile experienced favourable protection and patent laws (automobile, drugs & pharmaceuticals, etc.). But, there is increasing call for liberalization of foreign flows, which arrive with the predatory intent of merely exploiting the low wage labour in India. All these aspects imply that India's export value is unable to catch-up with the value of high value imports.

Dis-aggregating the imports and exports, Figure 9 presents the Net exports (Exports-Imports) to GDP ratio of Oil and Non-Oil commodities, and the CAD (as a % of GDP) without these commodities. Conventional wisdom emphasizes on impact of oil imports in the worsening of CAD. But here, we clearly see that, beginning in the early 2000s, the "Net Non-Oil Exports" declined substantially much faster than "Net Oil Exports". Although the Net Oil Exports did contribute to the decline in CAD, at least in the 2000s, Non-Oil imports played a dominant role. Even in the second half of 2010s, the easing of CAD can be seen to be associated with a sharp recovery in both Net Oil and Non-Oil exports. In the globalized international scenario, both Oil and Non-Oil commodities contribute to the CAD.

5 Services Trade

With the digital revolution, services, which was earlier considered non-tradable, has begun to rise tremendously in global trade. Figure 10 provides the share of services trade in the global trade in goods and services. It has been on an increasing trend, growing to 25.1% of global trade in 2019, indicating faster rate of growth in comparison to trade in goods. Services has become a major source of growth in the world, so much so that the differences in growth of Total Factor Productivity in OECD countries can be largely attributed to the variations in performance of business services (Chanda (2015)).

India's service sector has been one of the biggest beneficiaries of the 1991 reforms. Building on the large telecommunications network established by the PSUs, the entry of private players also helped in growth of wireless communication facilities. Utilizing this infrastructure, India emerged as the "back office of the world", beginning in the 2000s, which helped in tremendously increasing her export of services. Figure 11 shows the share of various countries in the global trade in services. India's share has more than doubled from 1.94% on 2005 to 4% in 2020. But, contrary to popular belief, it is not India, but China, that has long been dominating the exports in services among developing countries.

Delving deeper into the services exports, Figure 12 presents the Net Exports of various components of services trade as a percentage of Net Exports of services. It is very evident that, the "Computer and Information Services" sector has been the sole major earner of positive inflows into the current account from the services vertical, still maintaining a ratio of ∼93% even in 2018 (although the relative importance has declined). This is a sector which is completely dominated by private players, with almost negligible presence of public sector units. This adds support to our argument about private sector contributing to the reduction in CAD. Further support is offered by the statistic in Figure 13, which shows the Revealed Comparative Advantage (RCA) for exports various components of services export (measured as the ratio of share of each component in India's export to share of that component in world export). This plot shows that, the RCA of Computer-IT component is very high, and is far ahead of any close competitor. Therefore, India has a vast comparative advantage in exports of Computer & IT services.

The value of Computer and information services export from India grew from ∼$16 billion in 2004 to ∼$82 billion in 2018, contributing to over 40% of the services export from India in 2018. Today, India dominates the trade in this sector. Figure 14 shows the share of top countries in the exports of Computer and information services. India alone contributes

to one-fifth of the global exports in this field, with the nearest competitor's share being less than half of India's share.

Several factors have contributed to this rise. As mentioned earlier, infrastructural aspect-wise, development of telecommunication networks has been a major contributor. Moreover, the liberalization of foreign investments allowed a large volume of FDI to be accumulated in this sector. Moreover, the creation of large pool of skilled "English-speaking" workers, ably assisted by the top quality State funded technical institutions, available at a relatively lower wages, has played a pivotal role in the emergence of this sector (Mani (2014)). The increase in the share of off-shore mode of functioning in this sector has only been intensified by the new work practices during the pandemic.

But such a growth process is not without its criticisms. Firstly, the obvious lack of domestic demand for output from this sector, with sole focus on exports, is flagged as problematic. The usage of the exports from this sector in advanced production processes in the industrialized countries would mean that, this sector is primarily merely functioning as an appendage of the advancements in the developed countries.

Secondly, the sector being technologically intensive, primarily creates jobs only for the skilled workers. Hence, while the bulk of the employment is concentrated other fields of the services sector, like trade, construction, hospitality, etc., investment flows and foreign reserve earnings are concentrated in this sector with low employment elasticity. A natural consequence of such an employment demand is the lop-sided distribution of benefits from the growth in this sector, which is bound to be concentrated in the hands of few high-skilled workers.

Another important concern associated with this sector's exports is its heavy reliance on a small number of Western countries. Figure 15 shows the share of destination regions for

India's Software and IT exports. The plot clearly shows that India is consistently dependent on US, Canada & Europe for ≥85% of its exports in Software & IT services. The share of Asia and other countries have hardly increased over time. This makes the exports of this sector highly susceptible to recessionary tendencies in the West. The fall in share of Services net export in GDP after the global financial crash can be partly attributed to the protectionist tendencies in the West after the crash.

6 Foreign Investments

Post reforms, with increasing aim of financial capital needs, foreign investment flows have been gradually liberalized. But, other aims were also spelled out such as developing stock markets to lower capital cost, improved competition to increase efficiency, employment, and technological content of production process. Hence, India's investment sector was finally released from the shackles of "licence raj", threats of nationalization, higher tax rates and rigid labour laws. Slowly, more and more sectors were opened up for foreign investments, and greater share of investments allowed without need for approval.

Figure 16 shows the growth in FDI and FPI inflows. Following the first round of significant liberalization in 2005, FDI flows soared till 2008-09. But inflows struggled in the aftermath of the financial crisis. The next major set of liberalization policies in 2016 allowed further rising FDI flows. In case of FPI, we can clearly see the volatility in the flows, particularly after the financial crisis. But, even after such large scale liberalization policies, India's FDI-GDP ratio is not very high. Figure 17 shows the FDi-GDP ratio of several developing countries. In the 2000s, China used to be remarked as the giant in FDI flows. But, we see that, as a result of clear inward-looking policy, China's FDI-GDP ratio has consistently declined (although, still largest in terms of volume). For India, we can see that especially in the last decade, India's ratio is not as high as certain Asian and Latin American counterparts.

Figure 18 shows the contribution of FDI to gross fixed capital formation (GFCF). After reaching a high of ∼10% in 2008-09, it sharply declined in the post-crisis period, after which it has been showing a wavering trend. Remember, this is taking place in the larger context for falling GFCF as a percentage of GDP in the post-crisis period. Also, Rao & Dhar (2011) point to the undue importance given to the 10% cut-off in equity to demarcate between FDI and FPI, which allows lot of portfolio investment to be passed off as direct investment. Ghosh (2015) also discusses about the emergence of private equity firms in the FDI arena, seeking short-term gains, which has further blurred the boundaries. Moreover, despite econometric exercise pointing to the lack of significance of tax rates and labour laws to inflows, liberalization in these areas continue.

Figure 19 shows the routes through which FDI equity arrives in India. The first plot clearly shows the increasing trend of liberalisation in FDI flows, with the automatic route almost reaching ∼80% of equity flows in recent years. Until 2015-16, the large share of "Acquisition of shares" was pointed out as a major problem with respect to India's FDI inflows. But, it is lower in the recent years, probably due to further liberalization policies in 2016, when the investment regime was liberalized for venture capital and investment in start-ups. It must be noted that, China, with its effective infrastructural capabilities, receives both market seeking, as well as "vertical" efficiency seeking (part of company's production process shifted to the country) FDI. But FDI to India is mostly market seeking FDI.

Figure 20 shows re-invested earnings as a percentage of FDI inflow seeing a declining trend. This can be interpreted in both positive and negative ways. Since re-invested earnings are not really new investments, their decline in share might point to the greater importance of new investment flows. But, the loss of re-invested earnings might point to the declining profitability of direct investment in India, with funds moving to speculative sectors. Figure

21 shows the trend in repatriations/disinvestment in FDIs. There is a clear increasing trend, which is of concern to an emerging superpower like India.

Moreover, with respect to the technological content of FDI, Nagaraj (2003) cites several studies which questions the claims of FDI enabling the nation technologically. Market seeking FDIs often tend to bring oligopolistic practices. The study questions if foreign inflows through these oligopolistic firms will augment the country's access to technology and improve R&D. The study shows that liberal technology import policy in itself does not guarantee successful industrialization. Moreover, the case of foreign investment in the manufacture of telecommunication equipment (mobile phones, etc.), which has only added to the volatility in India's "high-tech" exports, points to the fact that unbridled foreign investment, even in "high-tech" sectors, will only aim to exploit the low wage workers in India by merely establishing low value added assembly processes, and not contribute significantly to technology spillovers.

Figure 23 shows the share of source country for FDI flows to India. It has been consistently pointed out that the share of premium or mid-range tax havens like Mauritius, Cyprus, Singapore, etc., continue to contribute to over 60% of the FDI inflows to India, and constantly feature in the top 10 source nations.

Table 2 elaborates the sector-wise inflow of FDI. After the 2005 wave of liberalization, the share of manufacturing in FDI almost halved by 2008. From the table, we see that it has only dwindled further in the years that followed, dropping to 21% in 2019. The market seeking nature of FDI to India is one reason why foreign investments have stayed out of SEZs in India, except in Services. On the other hand, Services has benefited greatly. Along with Computer Software & Hardware, "Trading" has begun to attract large inflows, with the expansion of retain brands and emergence of large shopping malls. It is also interesting

to not from Table 3 that FDI remains to be concentrated in already developed and industrialized states like Maharashtra, Gujarat, TN, etc., or in Karnataka with large IT hubs in Bengaluru, Mangaluru and Mysuru.

From Figure 22 we see that, Outward FDI, which equalled almost two-third of FDI inflows to India prior to 2011, has gradually declined in importance since then. It is pointed out that OFDI from India mostly proceeds through acquisitions, seeking strategic assets abroad. Also, once again, large share of OFDI going towards tax havens has raised worries about "round-tripping".

For the portfolio investment section of foreign inflow, Pal (2015) cites several studies that shows the adverse impacts of increased liberalization in this area. It discusses about the problems associated with disinvestment of PSUs to offer equities to FIIs, the myth of FPIs reducing cost of capital for domestic firms, and the least effectiveness of FPIs in promoting growth. Several studies are cited which discusses the grave effect of the economy becoming vulnerable to the speculative and volatility FPI flows, dependence on predatory FPIs leaving policy-makers with no room for intervention, and the threat of loss of investment to real sector with greater "freeing-up" of investment norms. The study conclusively shows that almost the entirety of academia does not favor the policies of further opening up of capital account, and that the real success stories in the developing world are of countries that practiced policies of "economic nationalism" and state intervention.

7 Remittances

As discussed previously, "Remittances" have been the most stable and important source of inflow which significantly bridges the CAD. India has emerged to become the largest earner of remittances in the world. India is also the nation with the largest stock of migrants abroad.

Table 4 provides the data on migration and remittances for India, as of 2017. We see that, as of 2016, there are 1.64 crore migrants living abroad, providing a remittance of ∼$68 billion. But, in terms of Remittance-GDP ratio, India's reliance on remittances is not as high as certain other developing countries, or even some European nations. At 2.57% of GDP, it is comparable to Mexico, but much higher than China. Even in terms of Average Remittance (Remittance per migrant), it is in the mid-range category, indicating that India's migrants might be well distributed across skill levels of jobs abroad.

Figure 24 shows the stock of India's migrants abroad. Gulf countries host an overwhelmingly large share of Indian migrants. More than half of Indian migrants are in the gulf countries. Dis-aggregated, UAE alone hosts ∼20% of Indian migrants. It is followed by US, UK and other Western nations. It was widely believed that the highly educated migrate to the West, and the less educated to the Gulf. But, with the globalization of jobs and the shifting of several MNCs' headquarters to Dubai and other Middle East location, Gulf countries have also started contributing significantly to high-skilled migration.

Despite the significant importance of migration and remittances to the CAD of the country, we hardly have any quality data source to understand this phenomenon. Except for Kerala, where, owing to the large number of migrants and receiving of remittances, significant studies have been conducted and data collected on this area (Zachariah & Rajan (2010)), no major efforts have been made to deeply understand migration in other states of India. 64^{th} round of NSS survey collected some information on migration and remittances. But since it doesn't distinguish between 'household' and 'total' remittances, it is not possible to directly infer conclusions based on the data. But, studies have made innovative use of the data to understand remittance flow across the country. It is estimated that Kerala receives ∼40% of the household remittances inflow, followed by Punjab with ∼13%. While in states

like Kerala and Tamil Nadu, ∼75% of the remittances went to the rural areas over three decades, thereby significantly reducing the rural-urban divide, in states like Gujarat and Maharashtra, the opposite scenario is true (Tumbe (2011)).

There is a wide range of literature on the benefits of remittance inflows. Especially the case of Kerala amply demonstrates the positive impact of remittances. A large volume of medium-skilled workers tend to not take their family abroad, and hence have a large propensity to save, which are sent back as remittances. These remittances are often spent on education, health, household construction, etc., which has not only improved the welfare of the population, but also contributed in promoting domestic industries. It also has ripple effects in terms of economic development, improved nutrition, lowering fertility, etc. The channelling of these savings into the cooperative sector in Kerala has also amply enabled the state in developing infrastructure, town planning, etc (Azeez & Begum (2009)). Moreover, it is also widely pointed out that these benefits are reaped at a low social cost for training and education for these migrants.

But, on the other hand, the migration to industrialized countries is often associated with high social costs, wherein the migrants are often trained and educated in the top public universities in the country. It is estimated that the migration rate of tertiary educated to OECD countries is 42 times those with primary and 14 times those with secondary education (Vijay (2015)). Moreover, we also now know that the stay rate (permanently stay) for migrants to US has been tremendously increasing over time, indicating lower probability to receive remittances (Mani (2012)). This is often termed as "privatization of benefits and socialization of costs" (Vijay (2015)). But these "brain drain" migrations are not without benefits. The establishment of strong ties between Indian Software/IT industry and Western corporations is significantly attributed to the presence of influential diaspora. Moreover, a large number of trained professionals and academics from India, trained in the West, function to guide

and advice several Indian firms.

Finally, it is also worth noting that, while India is the destination for the largest value of remittance, it is also becoming a significant source of remittances. India is hosting ∼5 million migrants. Figure 25 shows the ratio of payments to receipts of remittances in India's BoP over time. We clearly see that the ratio is on an increasing trend, reaching a high of ∼9% in 2017-18, indicating that the remittance payments are growing faster than remittance receipts.

8 Conclusion

Our discussions have amply established that, after the Current Account Deficits began to spiral out of control post privatization and liberalization policies, it was also the role of private sector in bridging this gap.

But, this does not mean that government does not have any role. We have seen the role of the state and PSUs is setting-up telecommunication networks, providing land and other infrastructure, developing skilled workforce through public institutions, etc., which led to the services boom, which is now earning the largest foreign reserves. In case of FDI too, in important industries like automobile, foreign investments began through collaboration with PSUs like Maruti. In case of remittances, the social cost through public education of skilled workers abroad has already been established.

The state can play further role in these arenas, and not leave everything to the vagaries of the market. For instance, in service sector, the lack of state intervention has meant that the big corporations have been able to thwart any attempts at unionization, even illegally. This has meant that, despite being a "formal" sector, workers feel no sense of job security,

and increasingly experience alienation. In case of foreign investment inflows, unlike China, India is notorious for its lack of implementation of technology transfer policies, which allows purely predatory investments to proliferate. Moreover, despite warnings from academia, constant liberalization of portfolio investments has contributed to extreme volatility and speculative practices. Lack of focus on remittances and weakening of public sector financial institutions has meant that the State has not been able to mobilize these funds towards strong nation-building avenues.

Therefore, as much as private sector is bridging the CAD, the lack of state interventions has created glaring shortcomings. Effective State policies and interventions are necessary to enhance the functioning of these sectors towards a wholesome development.

References

Ahluwalia, Montek S. 2002. Economic reforms in India since 1991: Has gradualism worked? *Journal of Economic perspectives*, **16**(3), 67–88.

Azeez, Kazeem, & Begum, Maksuda. 2009. International remittances: A source of development finance. *International NGO Journal*, **4**(01).

Chanda, Rupa. 2015. Trade in Services and the Indian Economy. *Pages 112–168 of: Economics*. Oxford University Press.

Chandrasekhar, CP. 1997. The Trade-Investment nexus and industrialisation: An assessment based on the Asian Experience. *Edited by Deepak Nayyar, Trade and Industrialisation, Oxford University Press, Delhi*.

Dastidar, Ananya Ghosh. 2015. India's Experience with Export-led Growth. *Pages 21–64 of: Economics*. Oxford University Press.

Edwards, Sebastian. 2004. Thirty years of current account imbalances, current account reversals, and sudden stops. *IMF staff papers*, **51**(1), 1–49.

Ghosh, Jayati. 2015. India in the Changing Global Economy. *Pages 1–20 of: Economics*. Oxford University Press.

Kamin, Steven B, *et al.* 1988. *Devaluation, external balance, and macroeconomic performance: a look at the numbers*. International Finance Section, Department of Economics, Princeton University.

Mani, Sunil. 2012. High Skilled Migration and Remittances. *Growth, Development, and Diversity: India's Record Since Liberalization*, 181–210.

Mani, Sunil. 2014. Emergence of India as the world leader in computer and information services. *Economic and Political Weekly*, 51–61.

Milesi-Ferretti, Gian Maria, & Razin, Assaf. 1996. *Sustainability of persistent current account deficits*.

Nagaraj, Rayaproulu. 2003. Foreign direct investment in India in the 1990s: trends and issues. *Economic and political weekly*, 1701–1712.

on the Commercialisation of Infrastructure Projects (India), Expert Group, Mohan, R., Deb, S., of Applied Economic Research, National Council, & of Finance, India. Ministry. 1996. *The India Infrastructure Report: Executive summary*. The India Infrastructure Report: Policy Imperatives for Growth and Welfare. Ministry of Finance, Government of India by National Council of Applied Economic Research.

Pal, Parthapratim. 2015. The Management and Impact of Cross-border Capital Flows in India. *Pages 169–224 of: Economics*. Oxford University Press.

Rao, KS, & Dhar, Biswajit. 2011. India's FDI inflows: Trends and concepts. *Available at SSRN 1770222*.

Sachs, Jeffrey D, Cooper, Richard N, & Fischer, Stanley. 1981. The current account and macroeconomic adjustment in the 1970s. *Brookings papers on economic activity*, **1981**(1), 201–282.

Shah, Ajay, & Patnaik, Ila. 2007. India's experience with capital flows: The elusive quest for a sustainable current account deficit. *Pages 609–644 of: Capital Controls and capital flows in emerging economies: Policies, practices, and consequences*. University of Chicago Press.

Tiwari, Aviral Kumar. 2015. Reassesment of sustainability of current account deficit in India. *South-Eastern Europe Journal of Economics*, **10**(1).

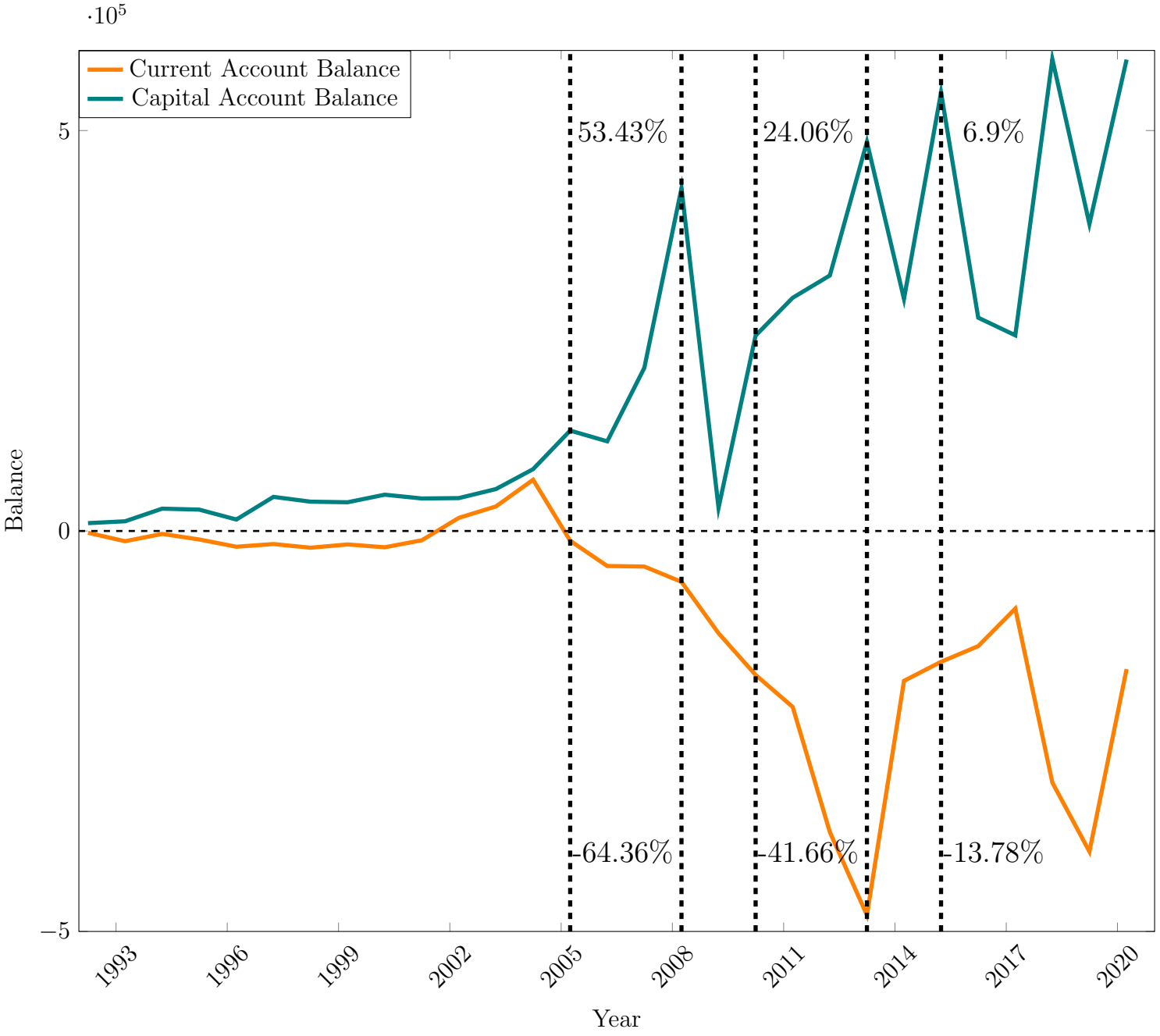
Tumbe, Chinmay. 2011. Remittances in India: facts & issues. *IIM Bangalore Research Paper*.

Vijay, G. 2015. Labour Movement in Globalizing India. *Pages 381–439 of: Economics*. Oxford University Press.

Zachariah, Kunniparampil Curien, & Rajan, S Irudaya. 2010. Migration monitoring study, 2008: Emigration and remittances in the context of surge in oil prices.

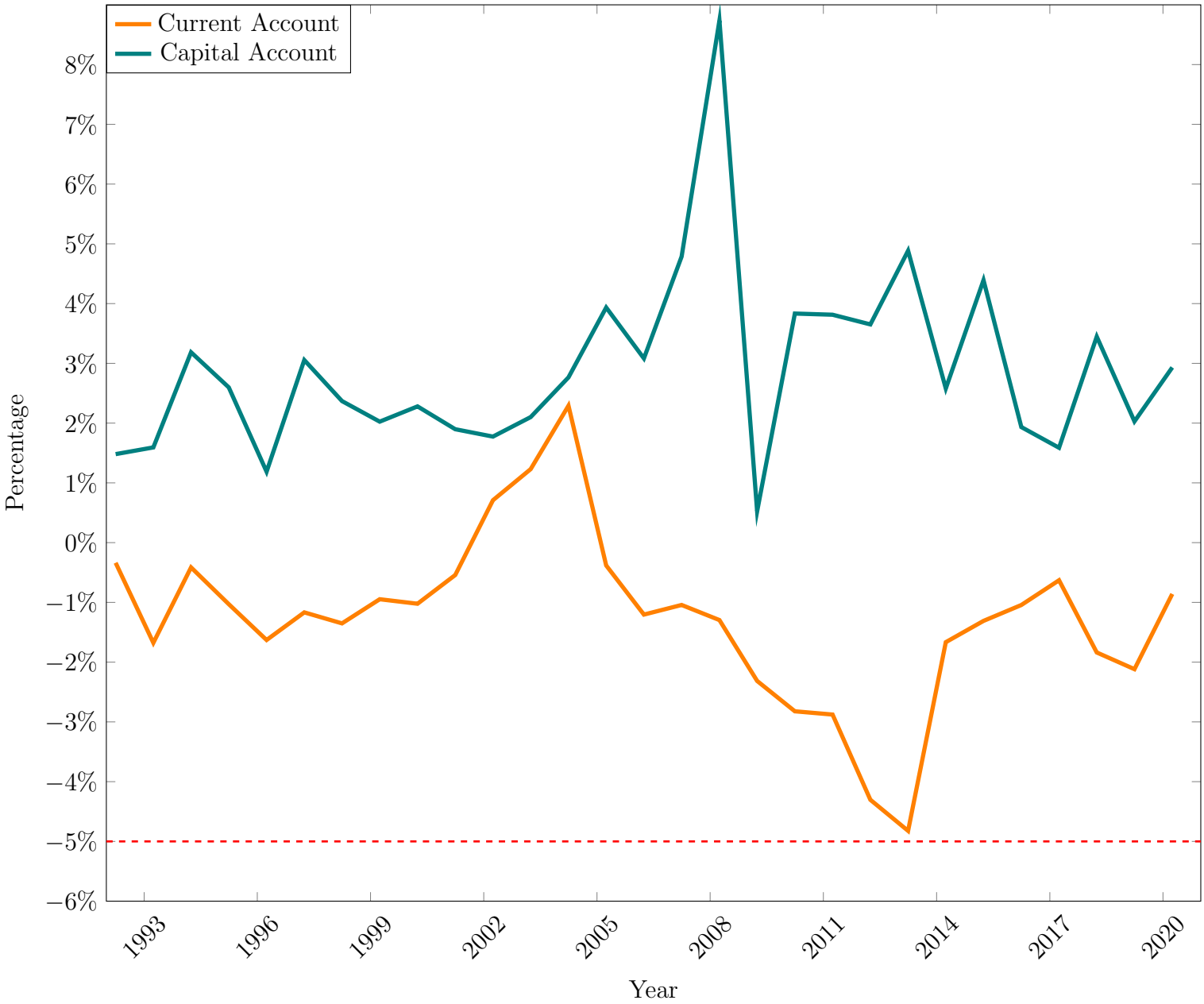
9 Tables and Figures

Figure 1: India's Current and Capital Account Balances (in Rupees crores)



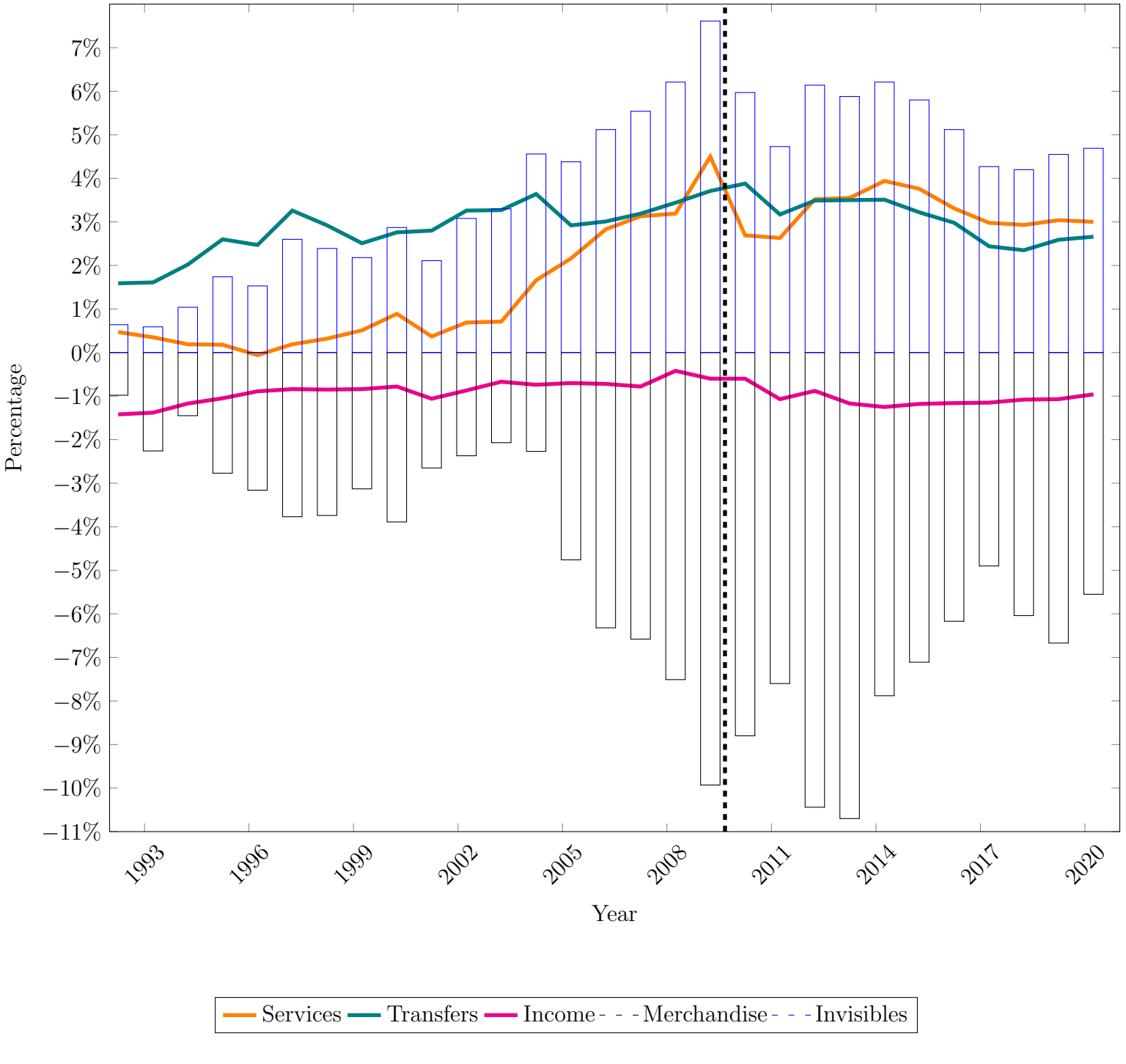
Source: Author's estimation using RBI Database on Indian Economy

Figure 2: India's Current and Capital Account Balance (% of nominal GDP)



Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Figure 3: India's Current Account Components' Balance (% of GDP)

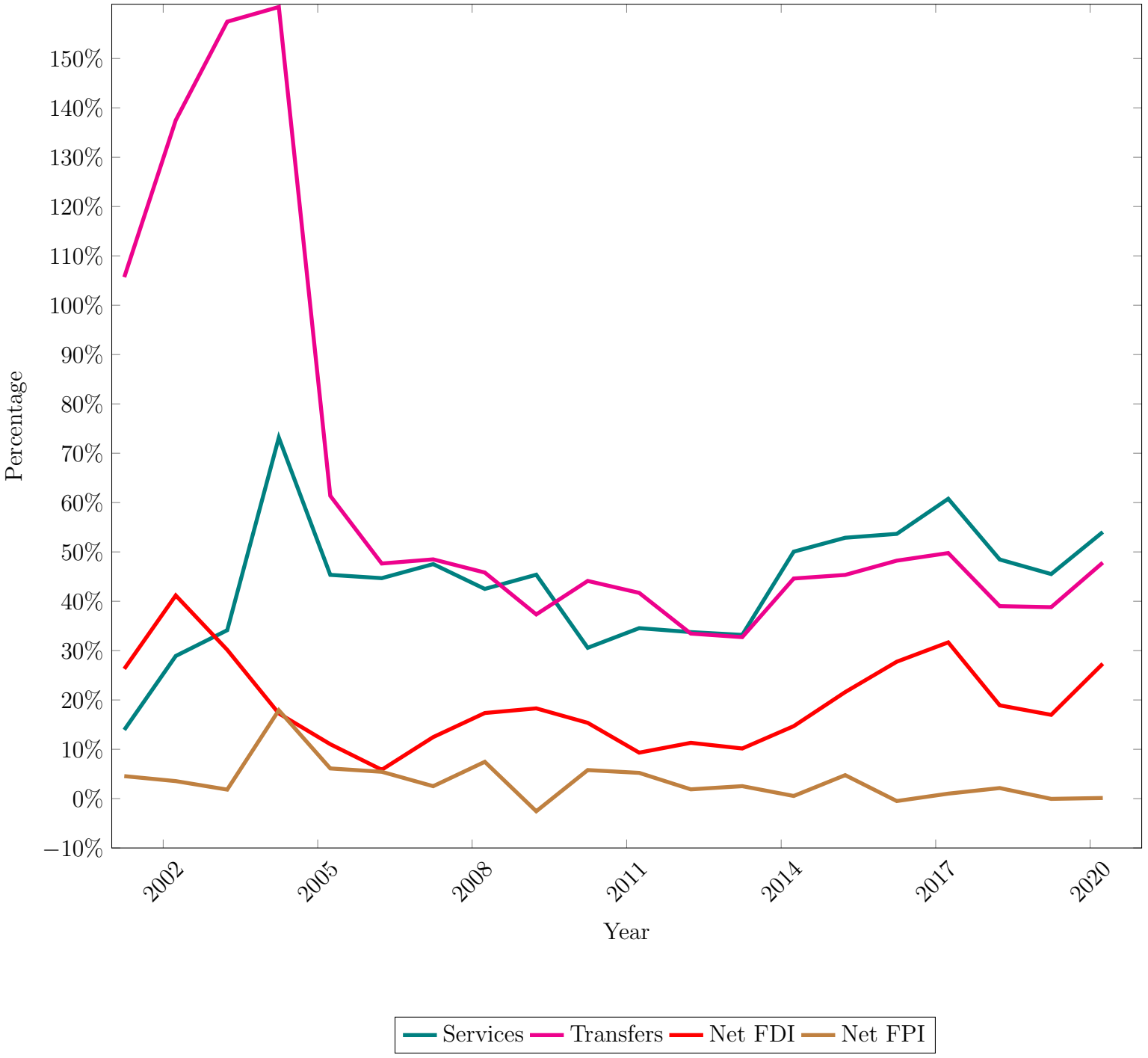


Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Figure 4: India's Capital Account Components' Balance (% of GDP)

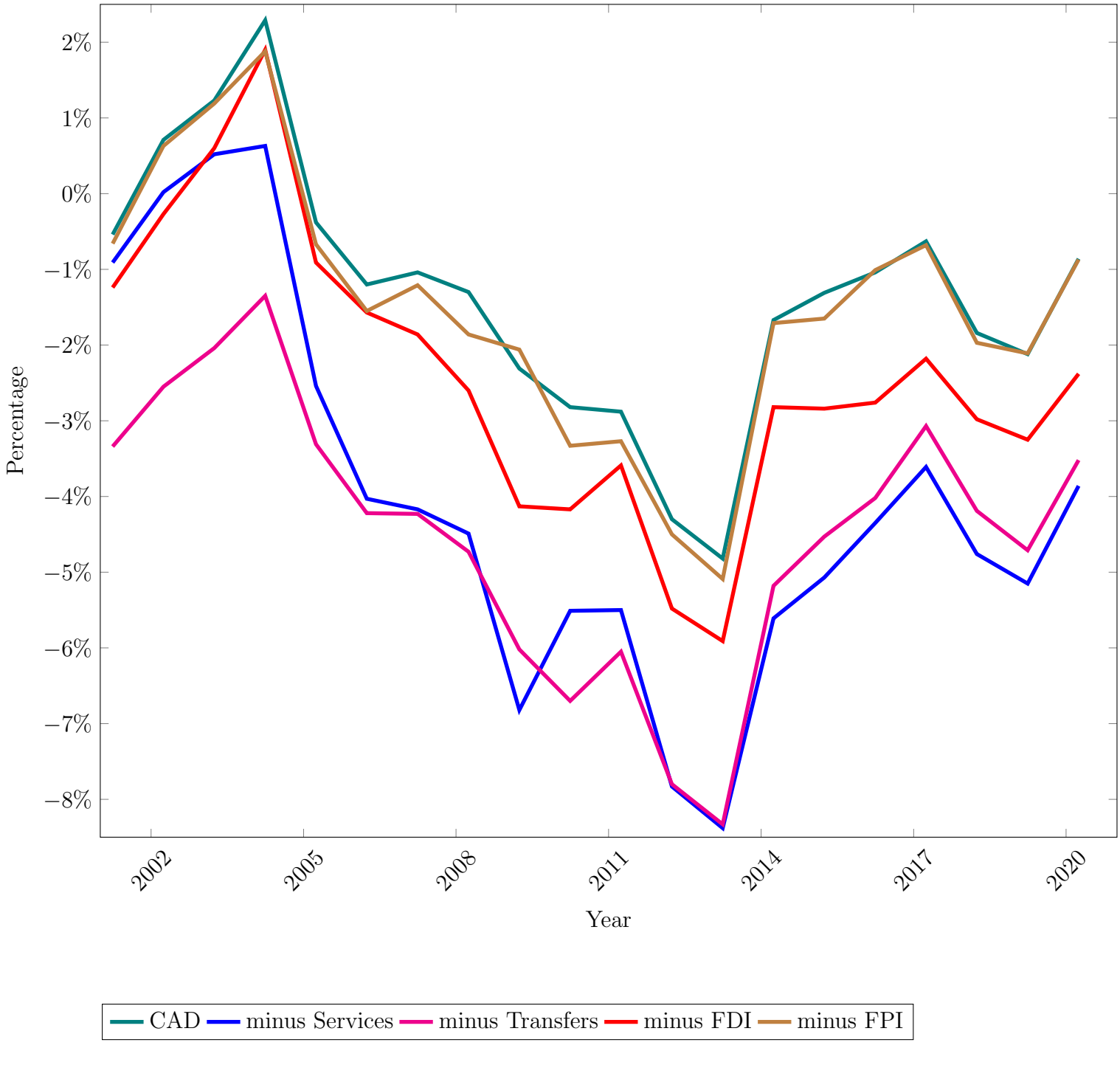
Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Figure 5: Ratio of India's BoP Components to Merchandise Trade Deficit



Source: Author's estimation using RBI Database on Indian Economy

Figure 6: India's Current Account Deficit minus each BoP Component (as a percentage of GDP)



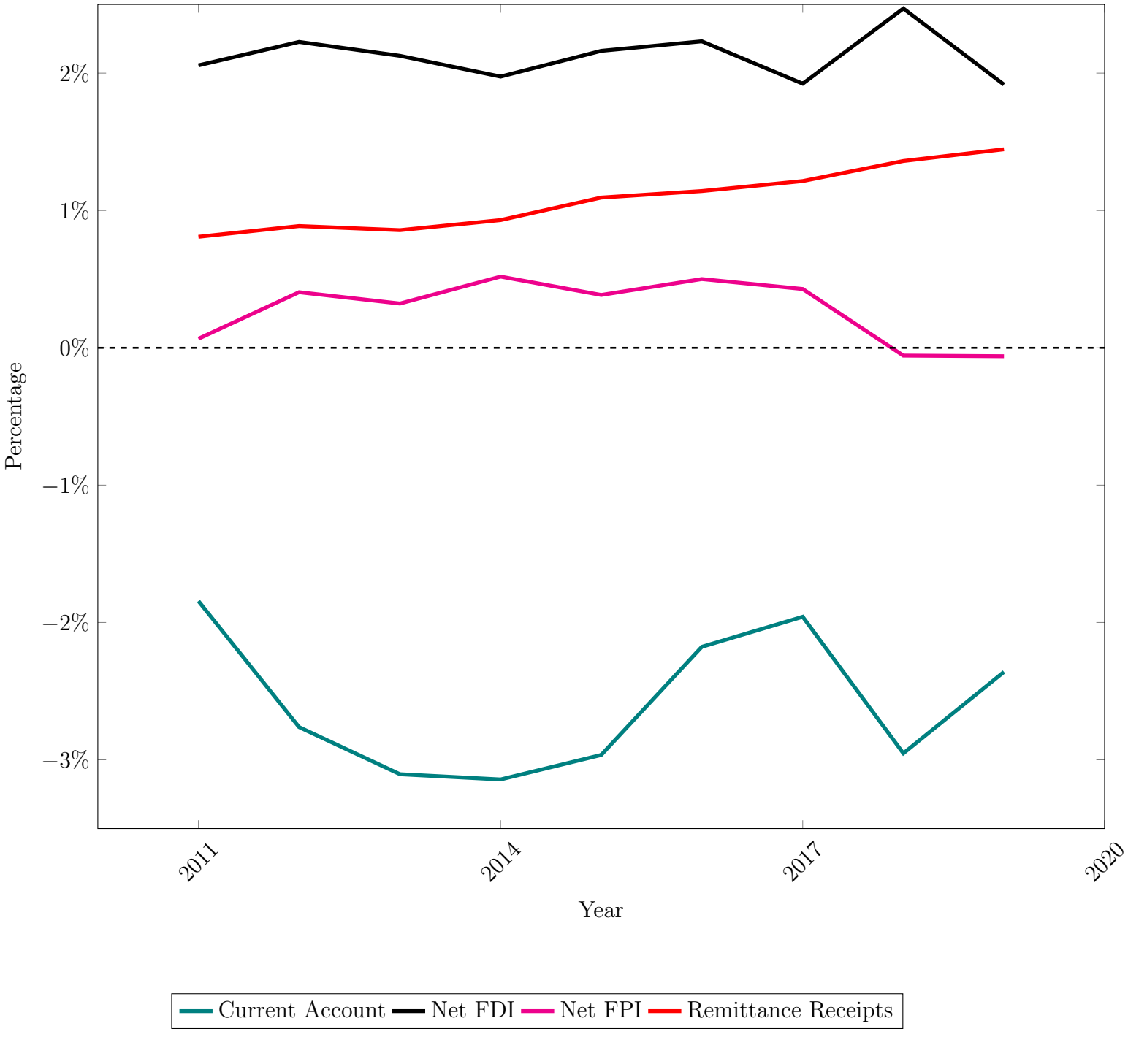
Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Table 1: Statistics on Components of India's BoP (1991-92 - 2019-20)

Item	Mean	Standard Deviation	Coefficient of Variation
Services	0.0273	0.0108	0.3954
Transfers	0.0315	0.0042	0.1326
Net FDI	0.0108	0.0042	0.3907
Net FPI	0.0018	0.002	1.086

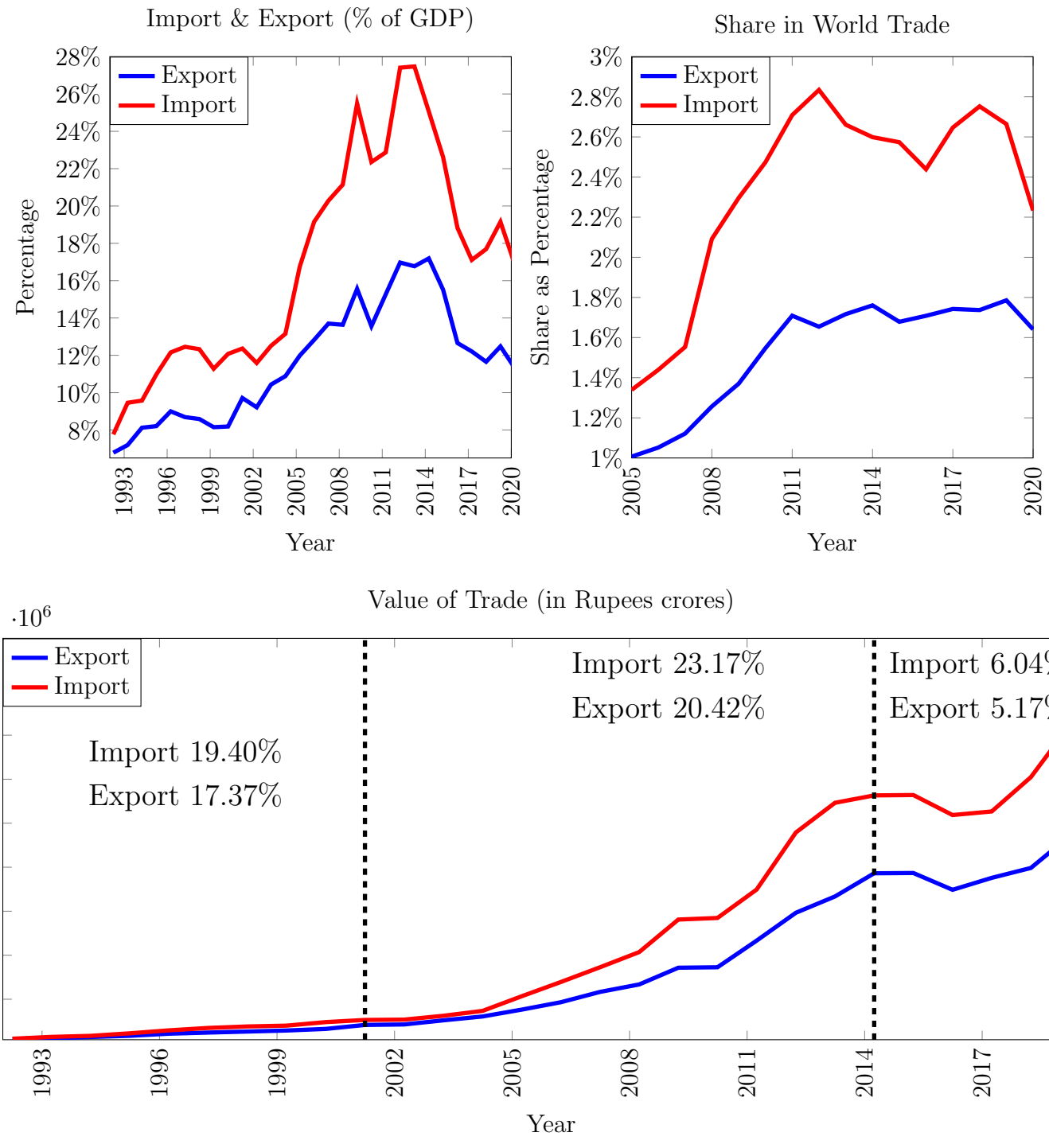
Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Figure 7: Aggregate of Balance of Payment Components of Select Countries as Percentage of Aggregate GDP (Argentina, Brazil, Chile, Egypt, Indonesia, Mexico, South Africa)



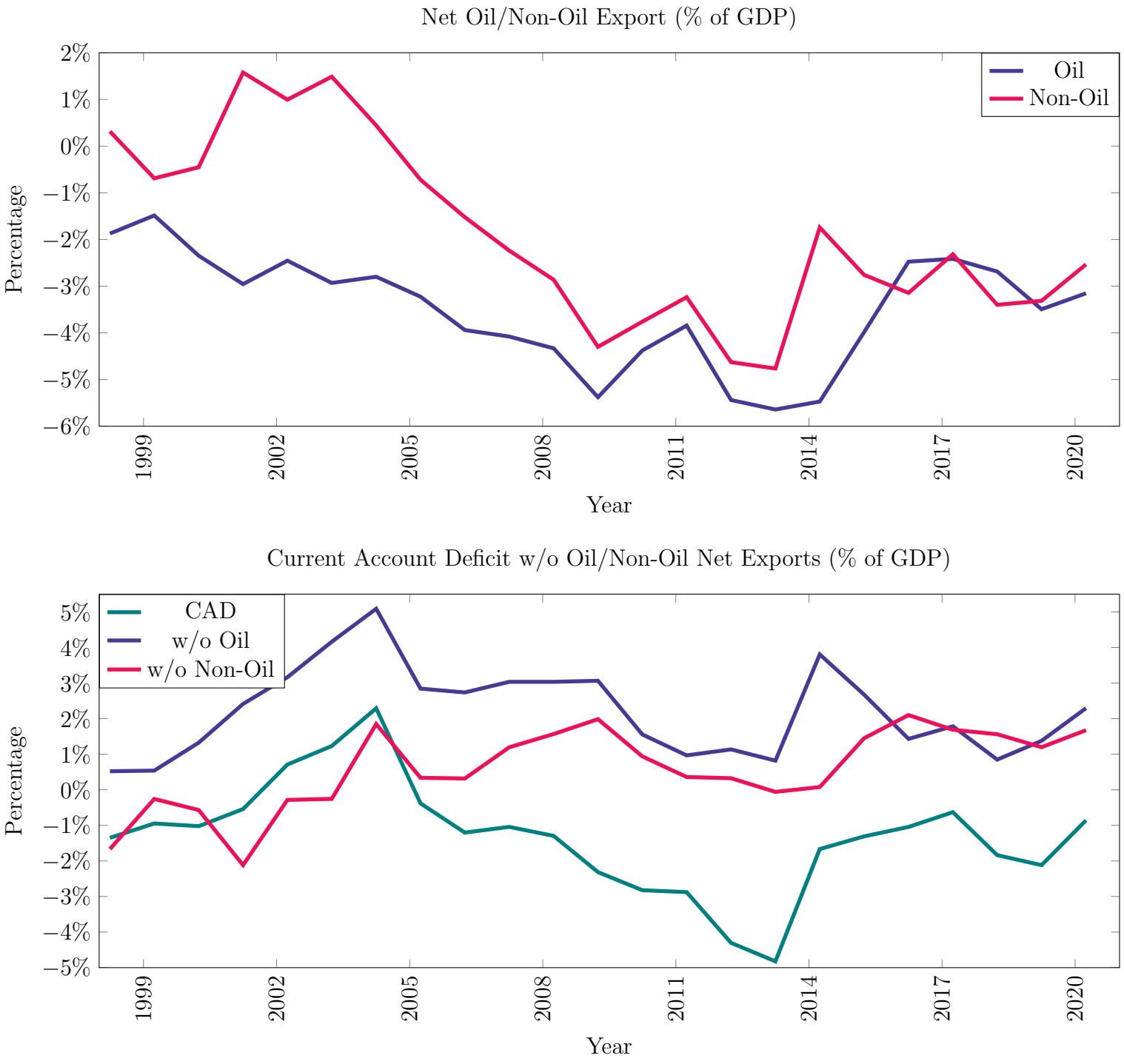
Source: Author's estimation using UNCTAD and World Bank Database

Figure 8: India's Merchandise Imports and Exports



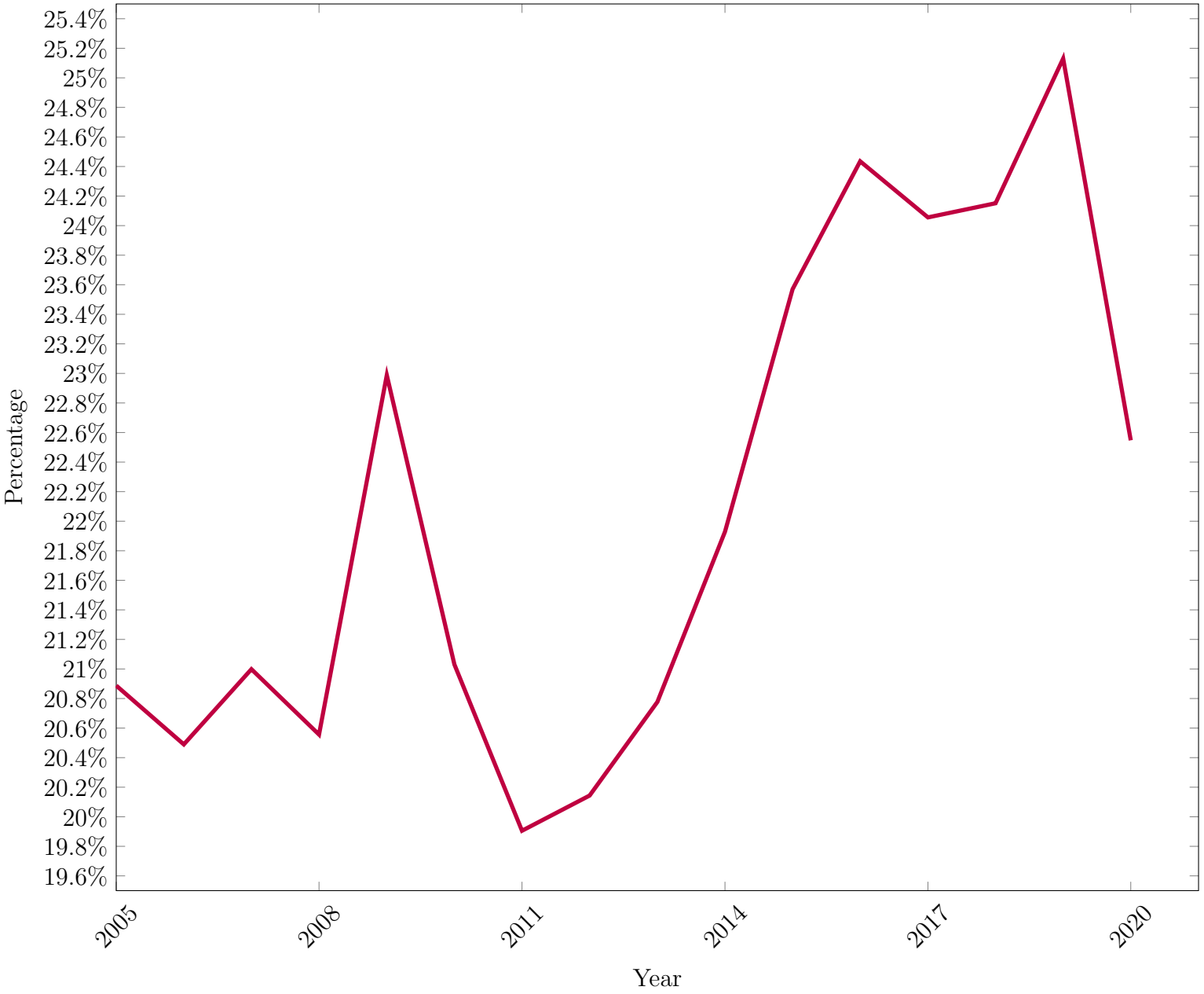
Source: Author's estimation using RBI Database on Indian Economy and UNCTAD Database

Figure 9: India's Oil/Non-Oil Merchandise Trade



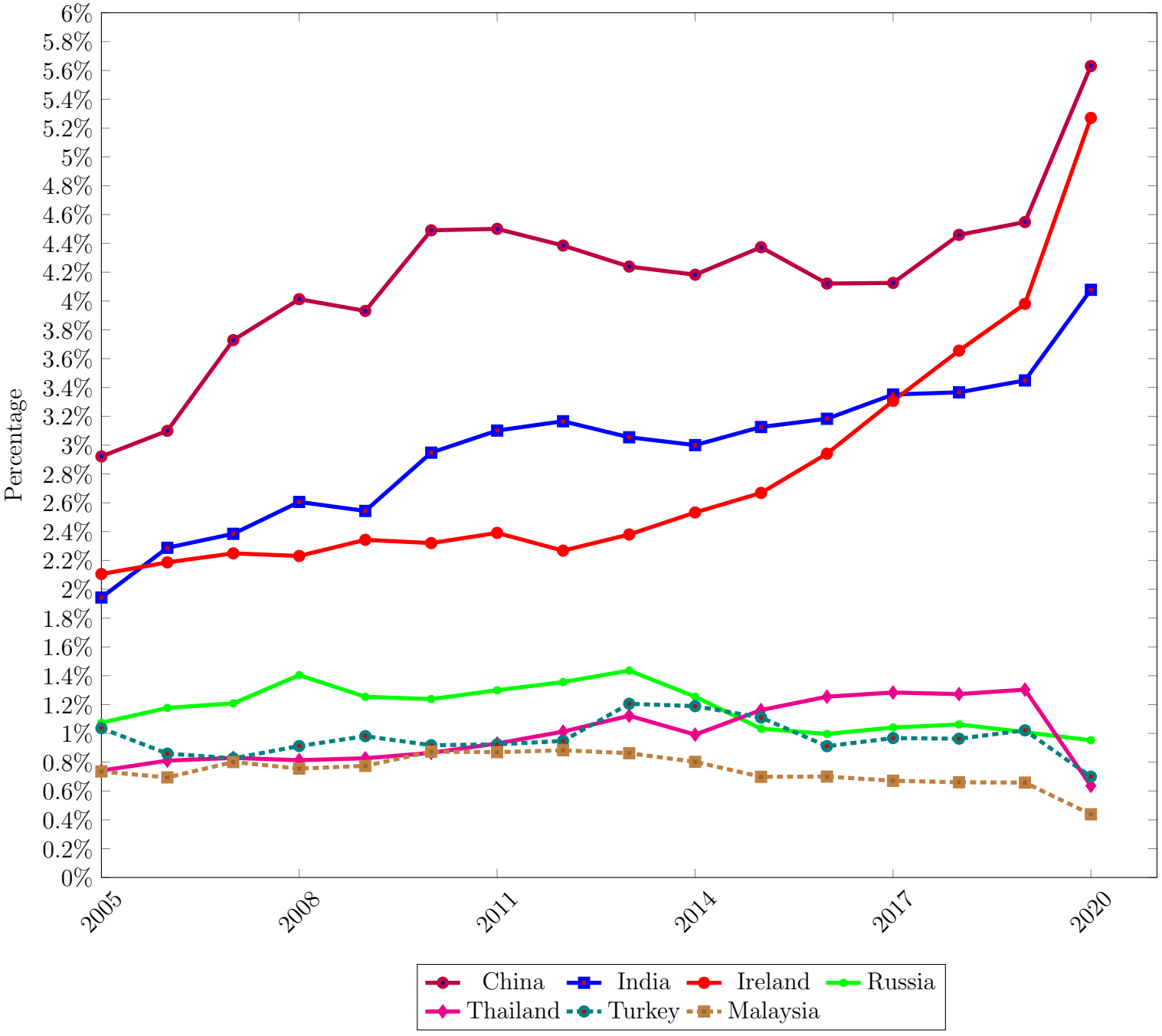
Source: Author's estimation using RBI Database on Indian Economy and EPWRF Database

Figure 10: Share of Services in World Trade



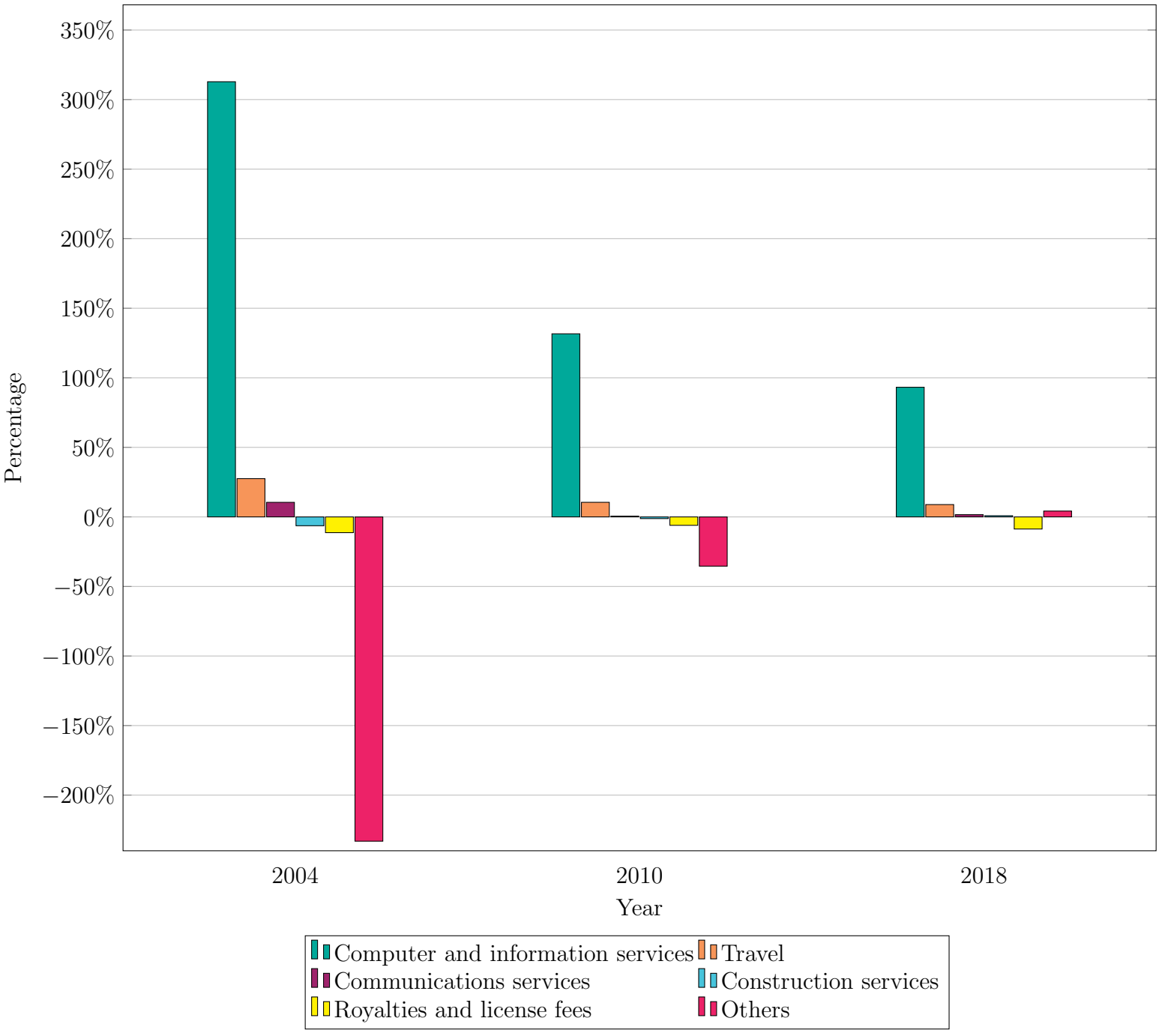
Source: Author's estimation using UNCTAD Database

Figure 11: Share of Select Countries in World Trade in Services



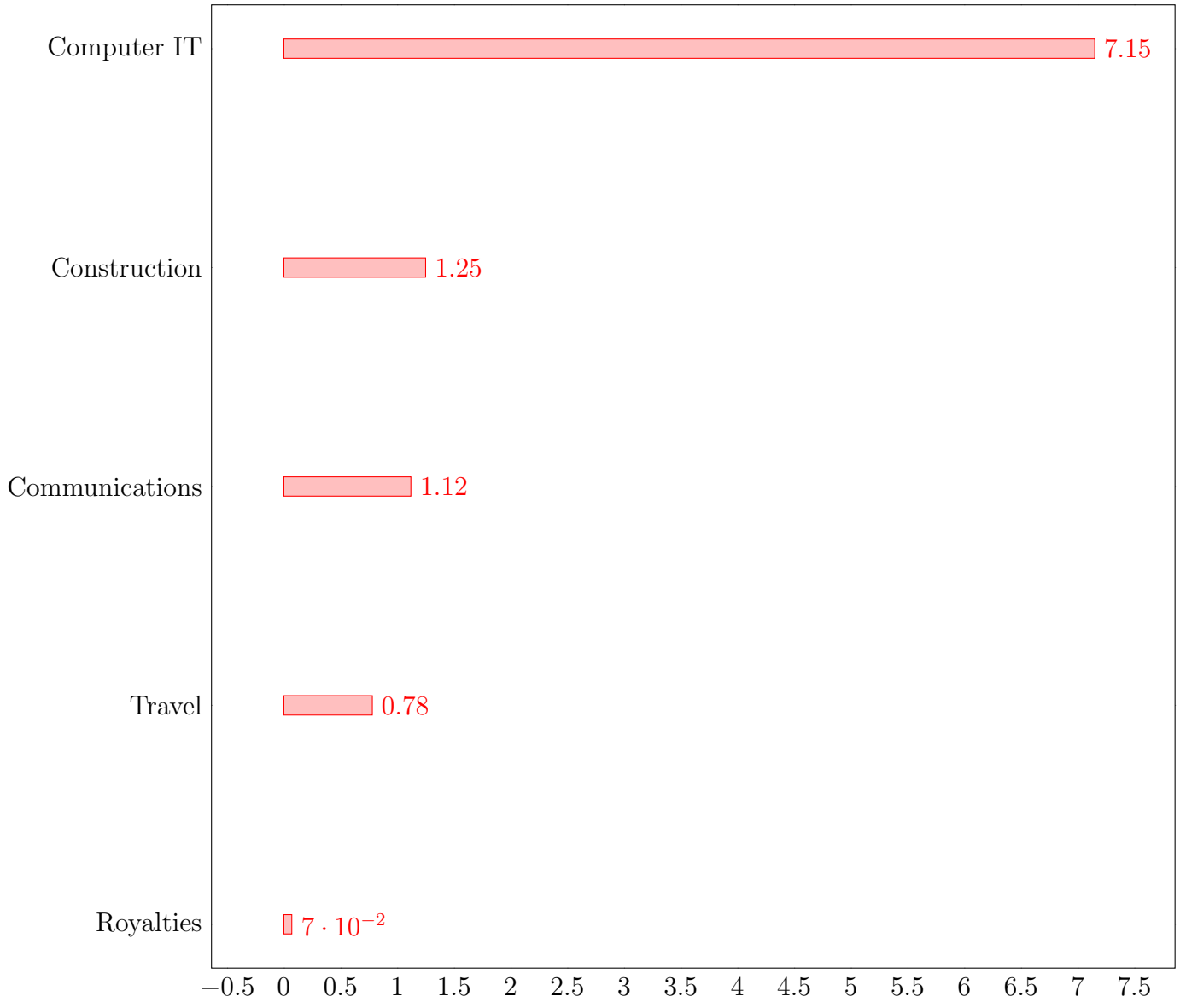
Source: Author's estimation using UNCTAD Database

Figure 12: Net Exports of each Components as % of India's Net Services Export



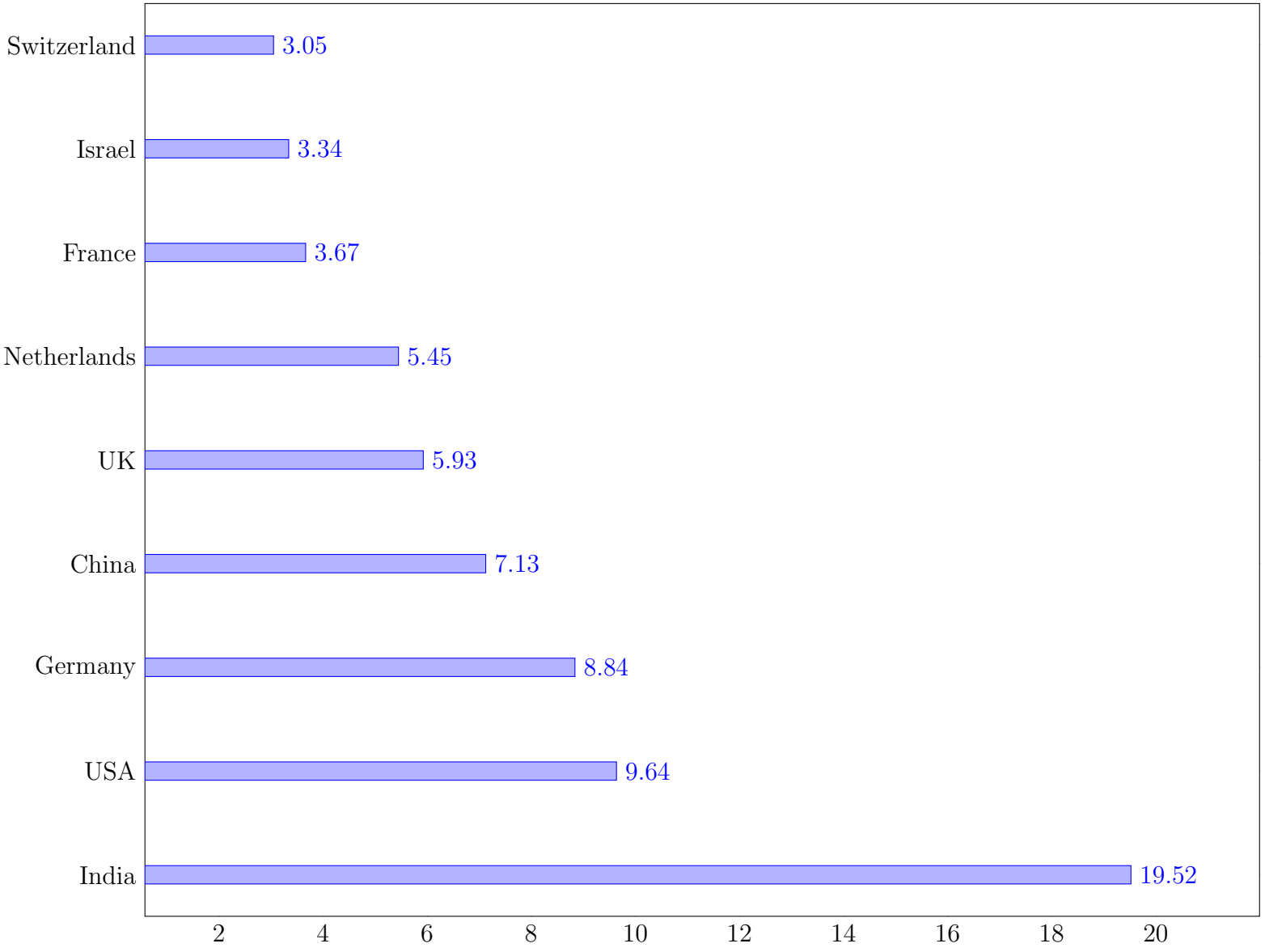
Source: Author's estimation using UN Comtrade Database

Figure 13: Revealed Comparative Advantage of Components of Services Export - India (2018)



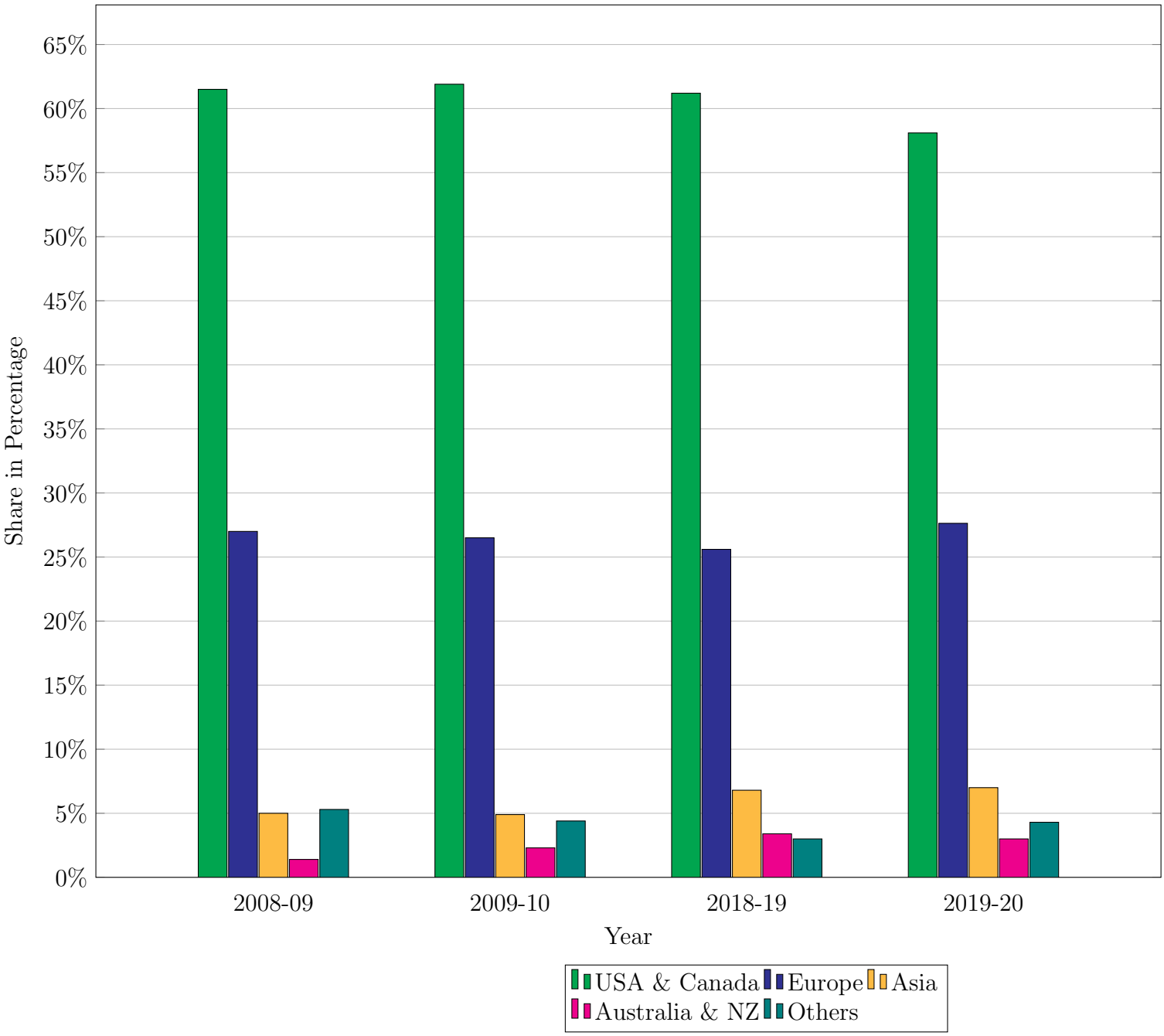
Source: Author's estimation using UN Comtrade Database

Figure 14: Share of Top Countries in World Exports of Computer and information (2018) services



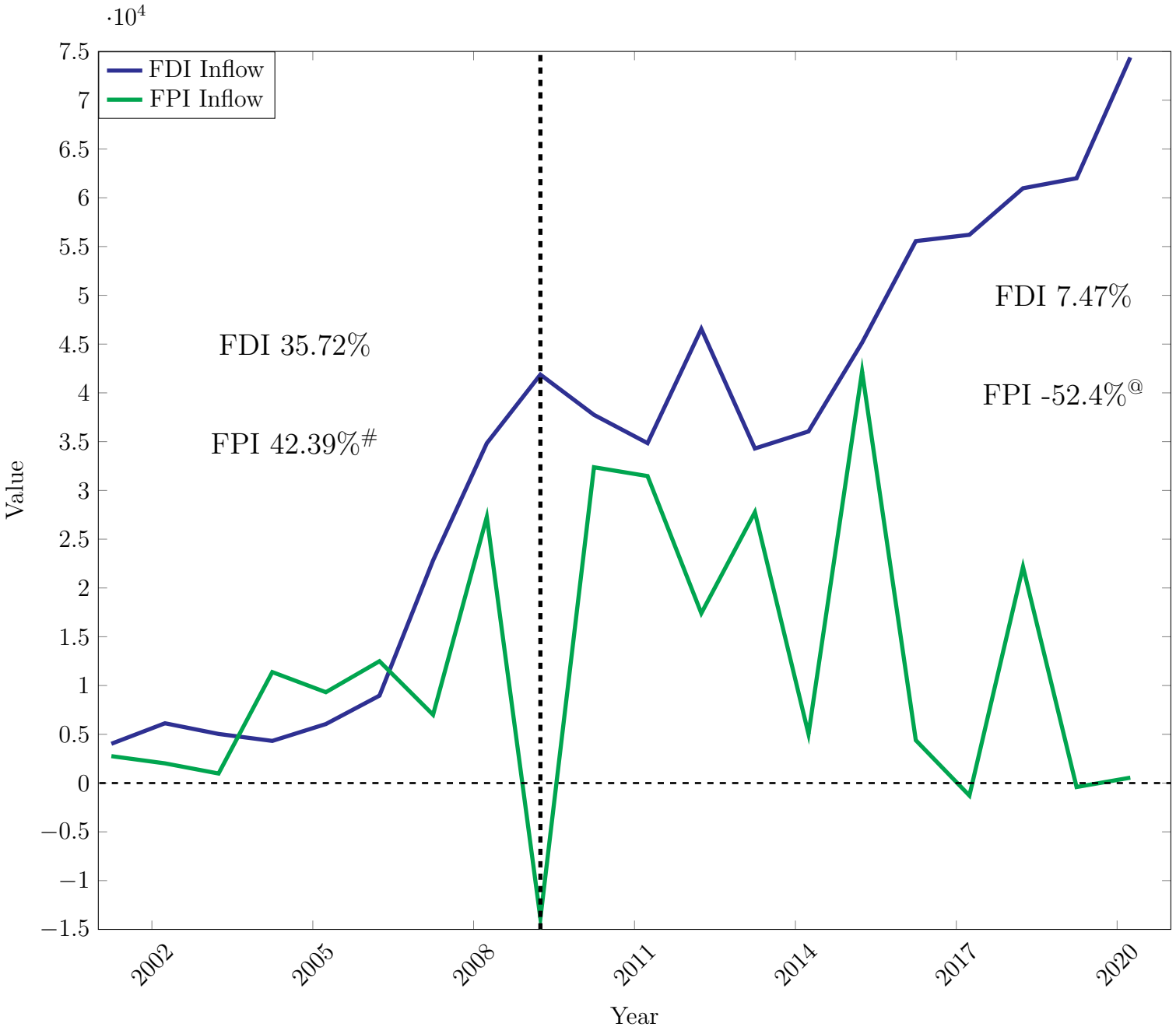
Source: Author's estimation using UN Comtrade Database

Figure 15: Share of Destinations for India's Software & IT Exports Export



Source: RBI Survey on Computer Software and Information Technology-Enabled Services Exports

Figure 16: FDI and FPI Inflows to India (in million US$) w/ growth rates in each period

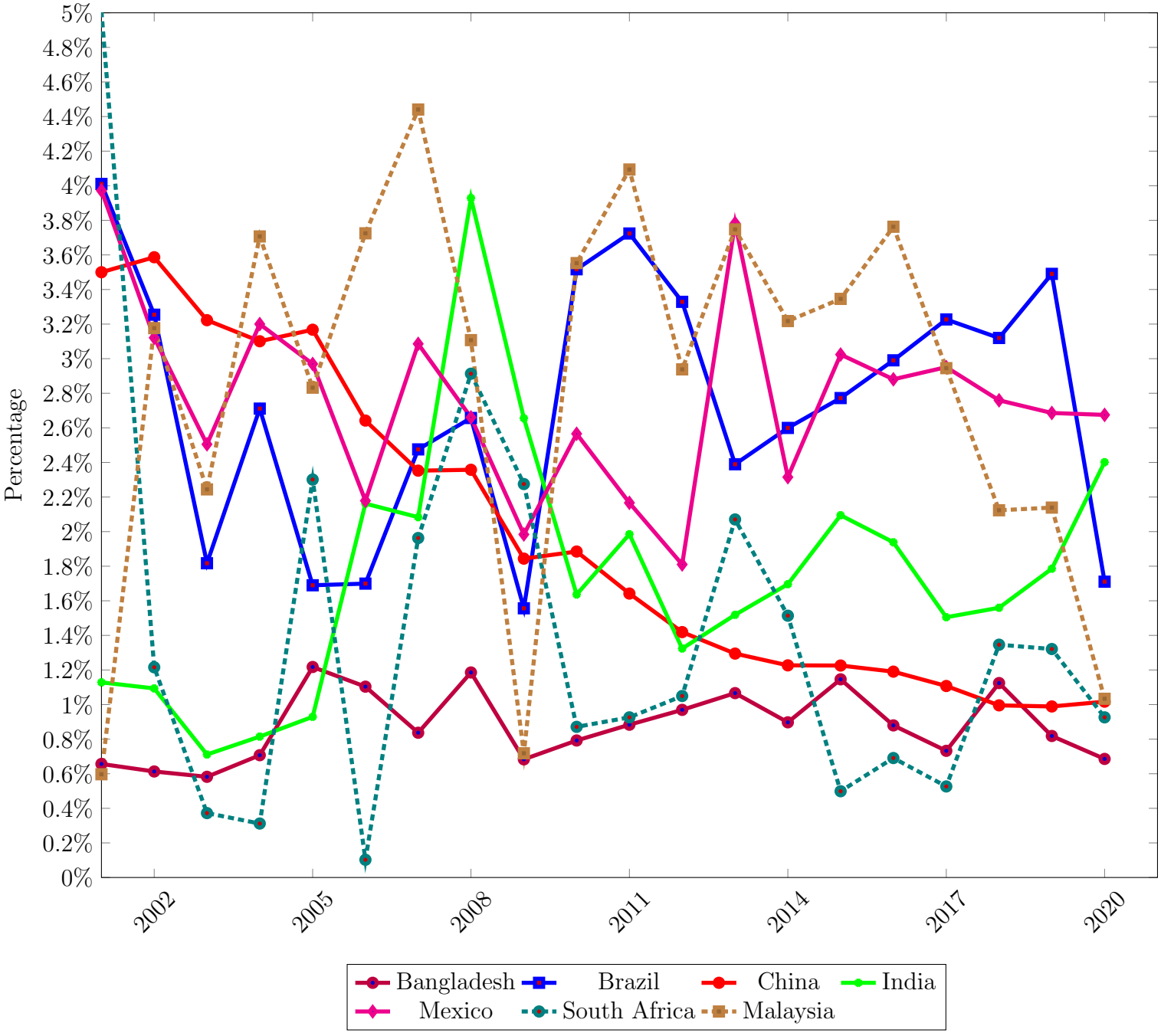


#For FPI, 2008-09 excluded

@ For FPI, negative values imputed as 1 for semi-log regression

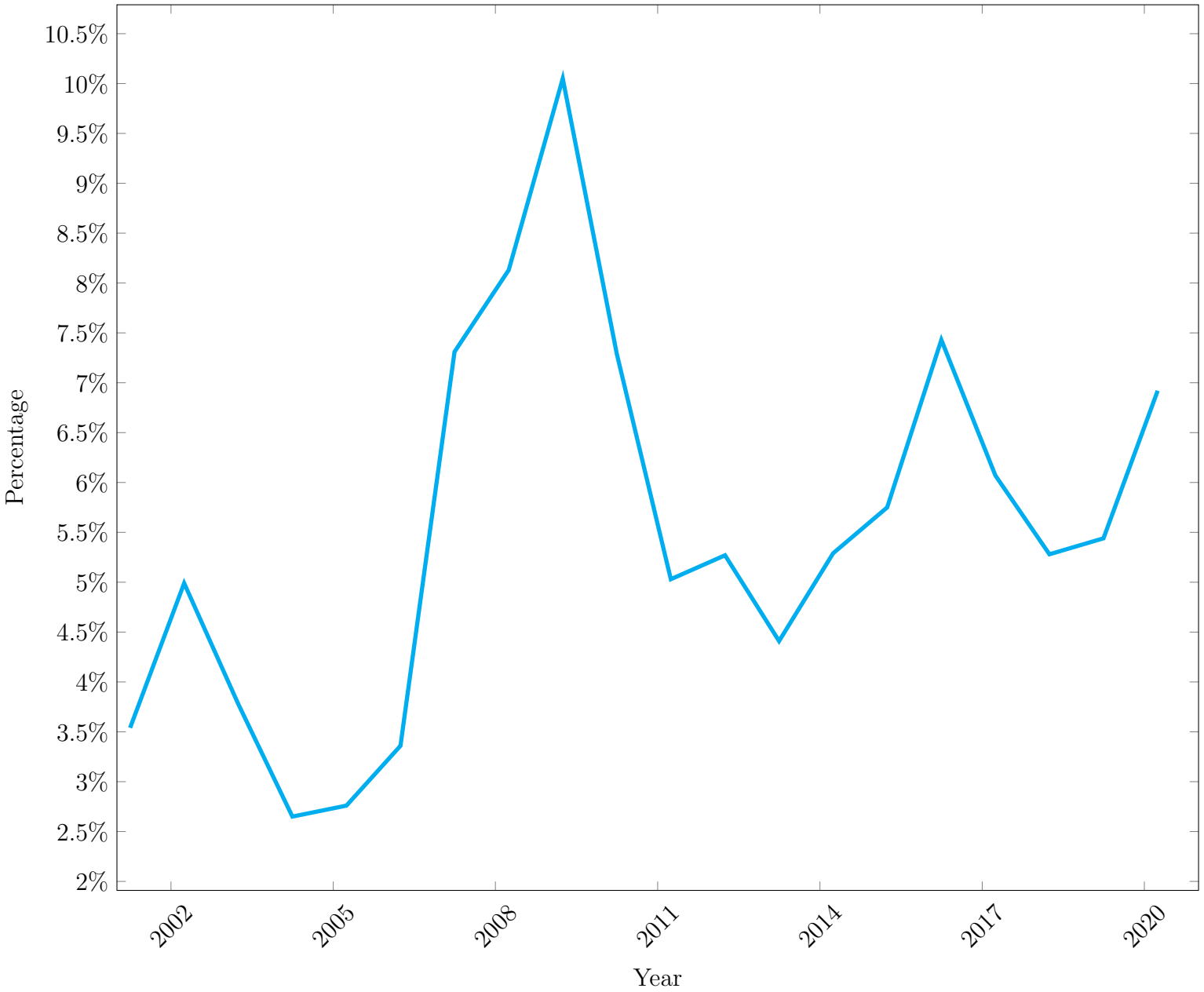
Source: Author's estimation using RBI Database on Indian Economy

Figure 17: FDI-GDP Ratio of Select Countries



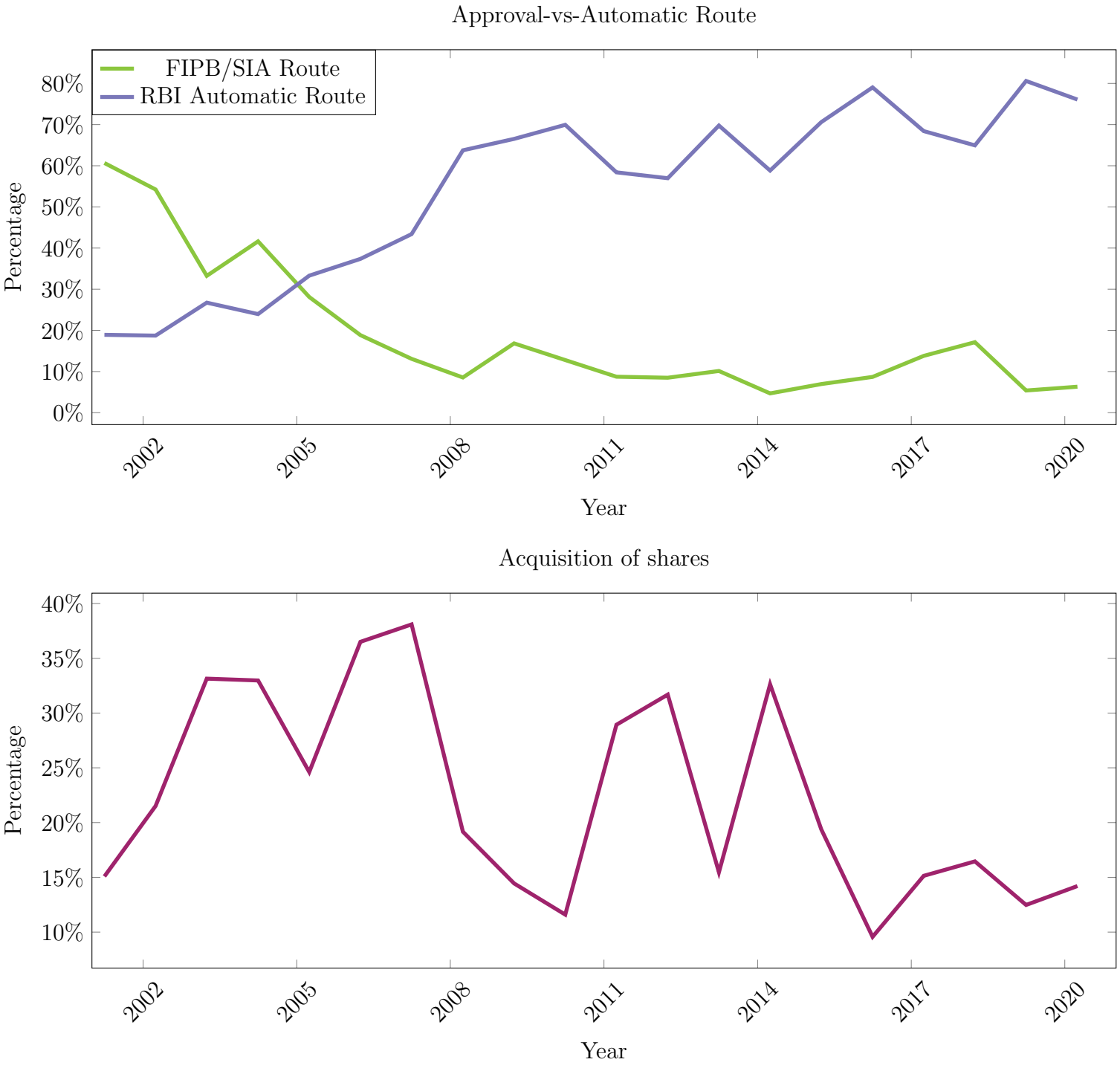
Source: Author's estimation using UNCTAD and World Bank Database

Figure 18: Net FDI Inflow as a % of India's Gross Fixed Capital Formation



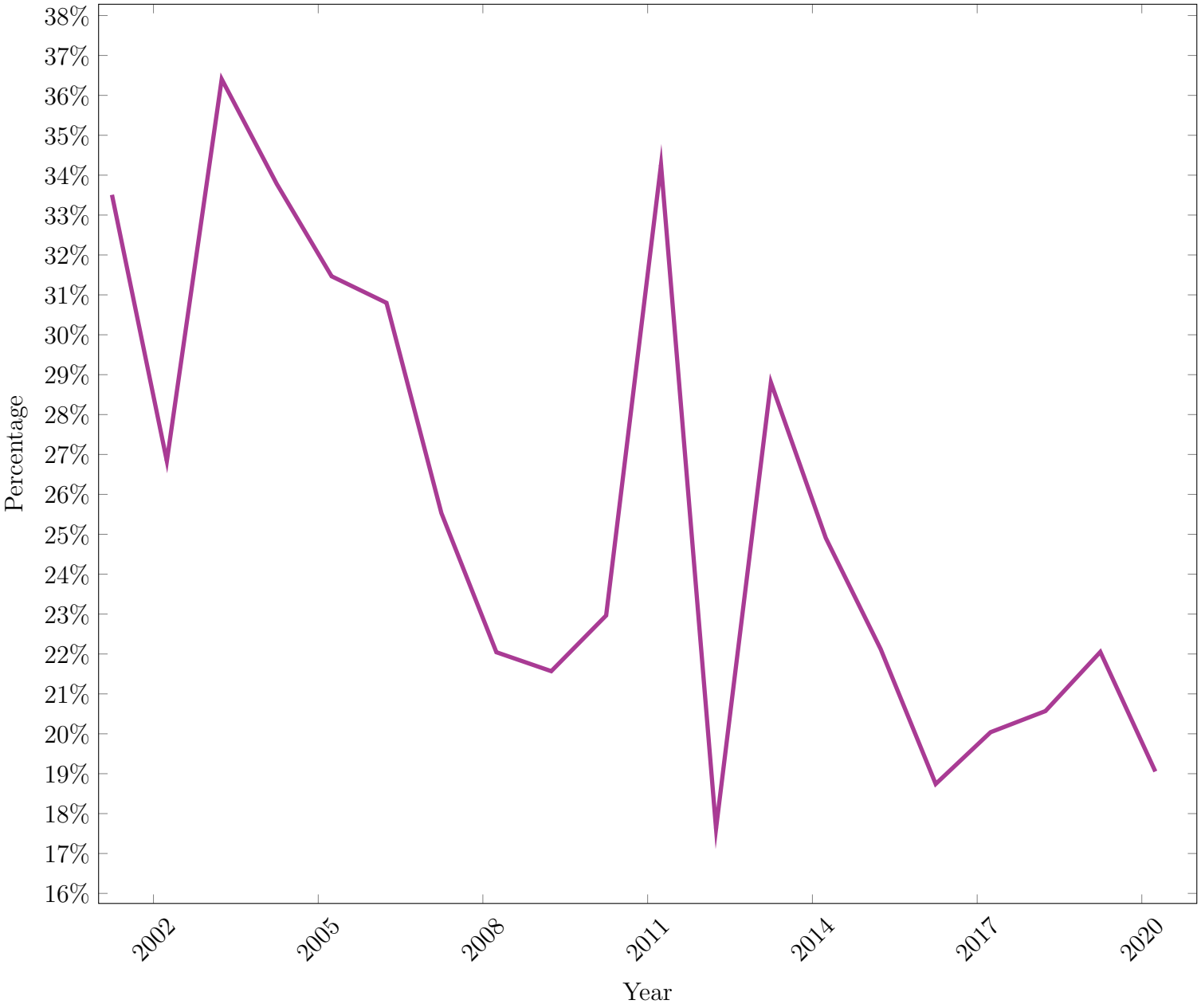
Source: Author's estimation using RBI Database on Indian Economy and National Accounts Data

Figure 19: Route of entry for FDI Equity flow (as % of total FDI equity flow)



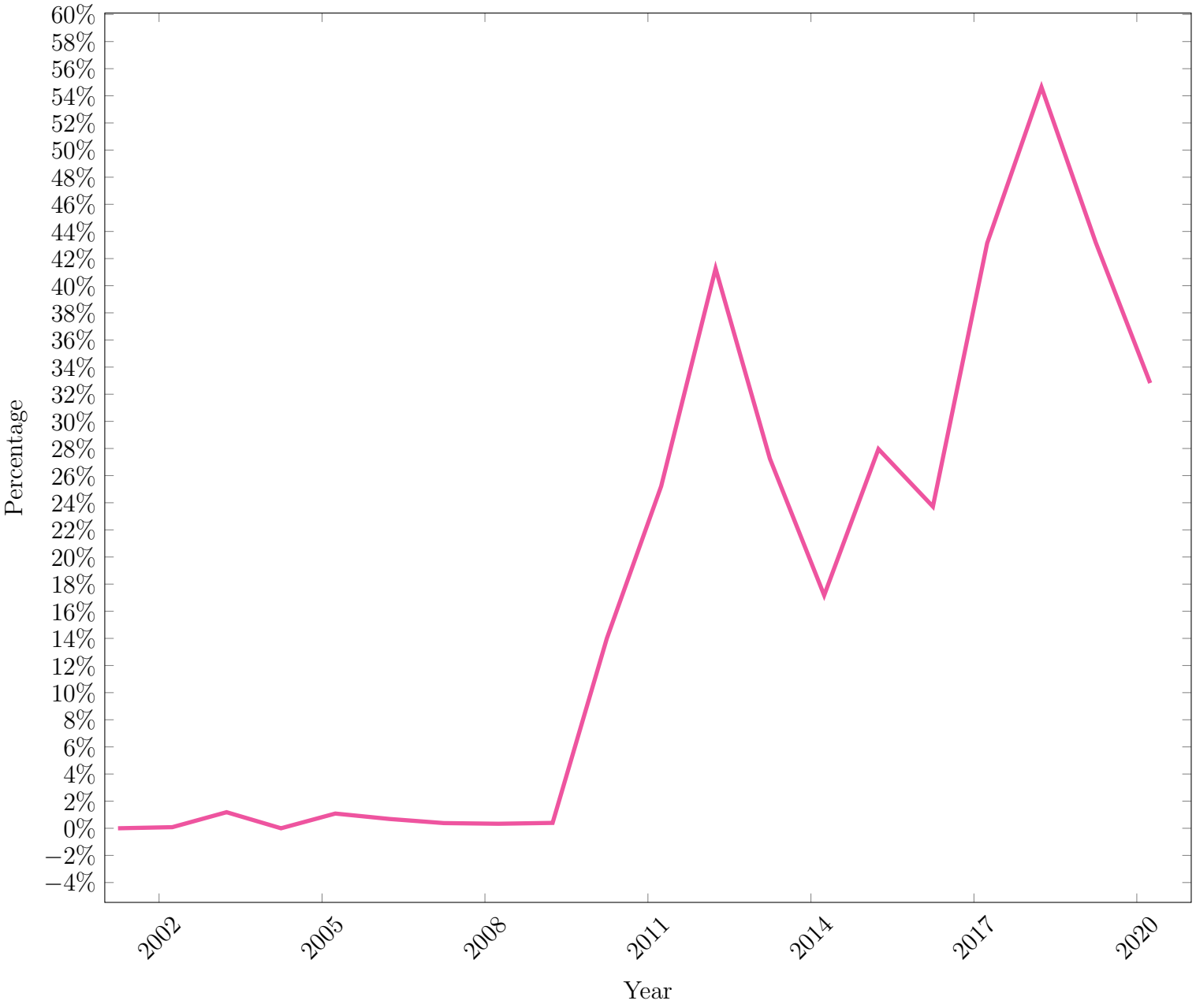
Source: Author's estimation using RBI Database on Indian Economy

Figure 20: Re-invested earnings as % of India's FDI Inflow



Source: Author's estimation using RBI Database on Indian Economy

Figure 21: Repatriation/Disinvestment as % of India's Net FDI Inflow

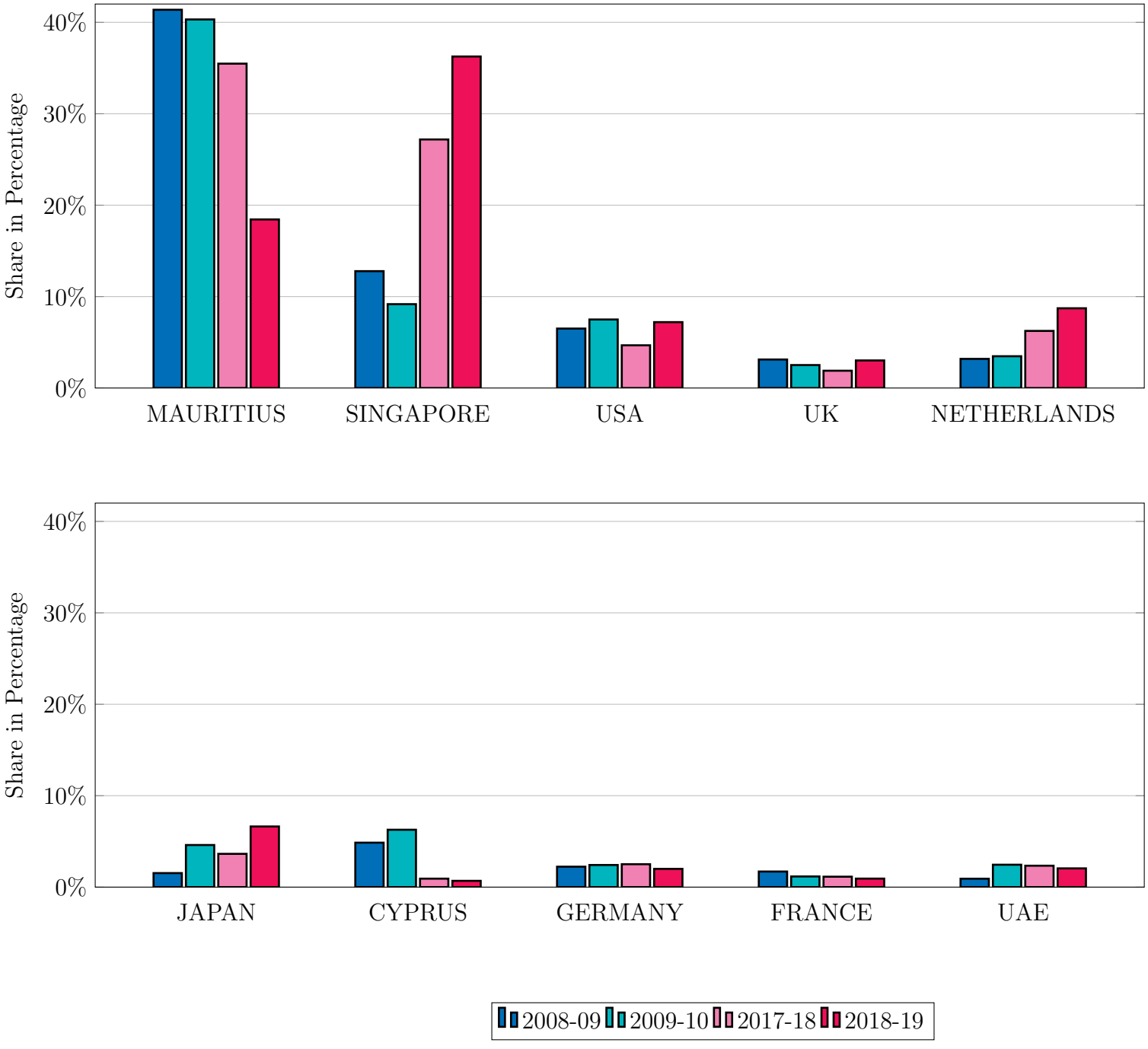


Source: Author's estimation using RBI Database on Indian Economy

Figure 22: Ratio of Investment by India and Investment to India

Source: Author's estimation using RBI Database on Indian Economy

Figure 23: Share of Source Country in FDI Inflow to India



Source: Author's estimation using FDI Factsheet, various years

Table 2: Sector-wise share of FDI Inflow (%)

Sector		2009	2010	2018	2019	2011 to 2019
Services		69.72	55.85	68.78	74.67	61.68
..of which..	Computer Software and Hardware	2.64	4.74	14.36	16.32	10.59
..	Telecommunications	9.50	7.21	5.58	9.69	8.27
..	Trading	2.15	2.64	11.82	10.41	7.57
..	Housing, Real Estate and Construction	20.80	14.48	5.38	4.73	6.93
Manufacturing		22.86	35.61	24.67	21.01	32.55
..of which..	Automobile	5.03	5.99	5.77	6.35	5.59
..	Chemicals	1.69	2.14	4.69	2.16	4.07
..	Drugs & Pharma	0.75	1.05	0.81	0.97	3.81
..	Electrical Equipments	2.91	0.53	2.00	1.40	1.92
Energy		6.54	8.02	6.02	4.05	5.20
..of which..	Non-Conventional Energy	0.45	2.28	3.19	3.14	2.56
Others		0.89	0.52	0.54	0.27	0.57
Total		100	100	100	100	100

Source: Author's estimation using FDI Factsheet, various issues

Table 3: State-wise share of FDI Inflow between October 2019 and March 2020 (%)

State	Share of FDI Inflows (%)
Maharashtra	30.35
Karnataka	17.92
Delhi	16.6
Gujarat	11.05
Jharkhand	7.7
Tamil Nadu	4.21
Others	12.17
Total	100

Source: FDI Factsheet, May 2020

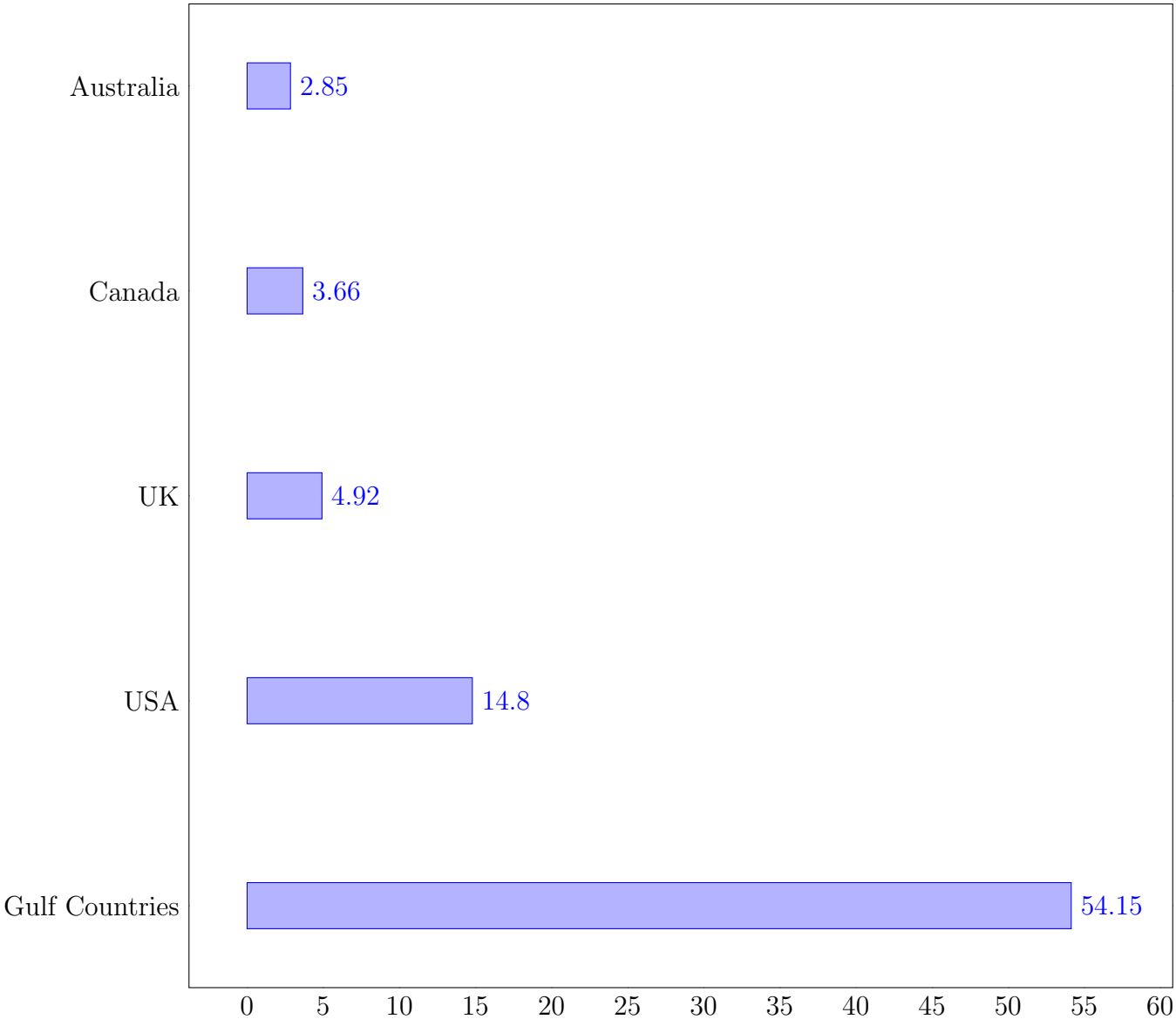
Table 4: Migration and Remittances for Select Countries (%)

Country	Remittances (million USD)	Migrants #	Remittance-GDP Ratio (%)	Average Remittance (USD)
India	68,184	1,64,44,830	2.57	4,146
Bangladesh	13,500	77,96,958	4.6	1,731
China	63,876	1,00,60,253	0.52	6,349
Egypt	24,737	34,44,832	10.49	7,181
Mexico	31,988	1,18,81,712	2.76	2,692
Ukraine	9,726	59,95,314	8.68	1,622
Vietnam	15,000	26,94,270	5.33	5,567

Note: Data as of 2017

Source: Author's Estimation using World Bank Database

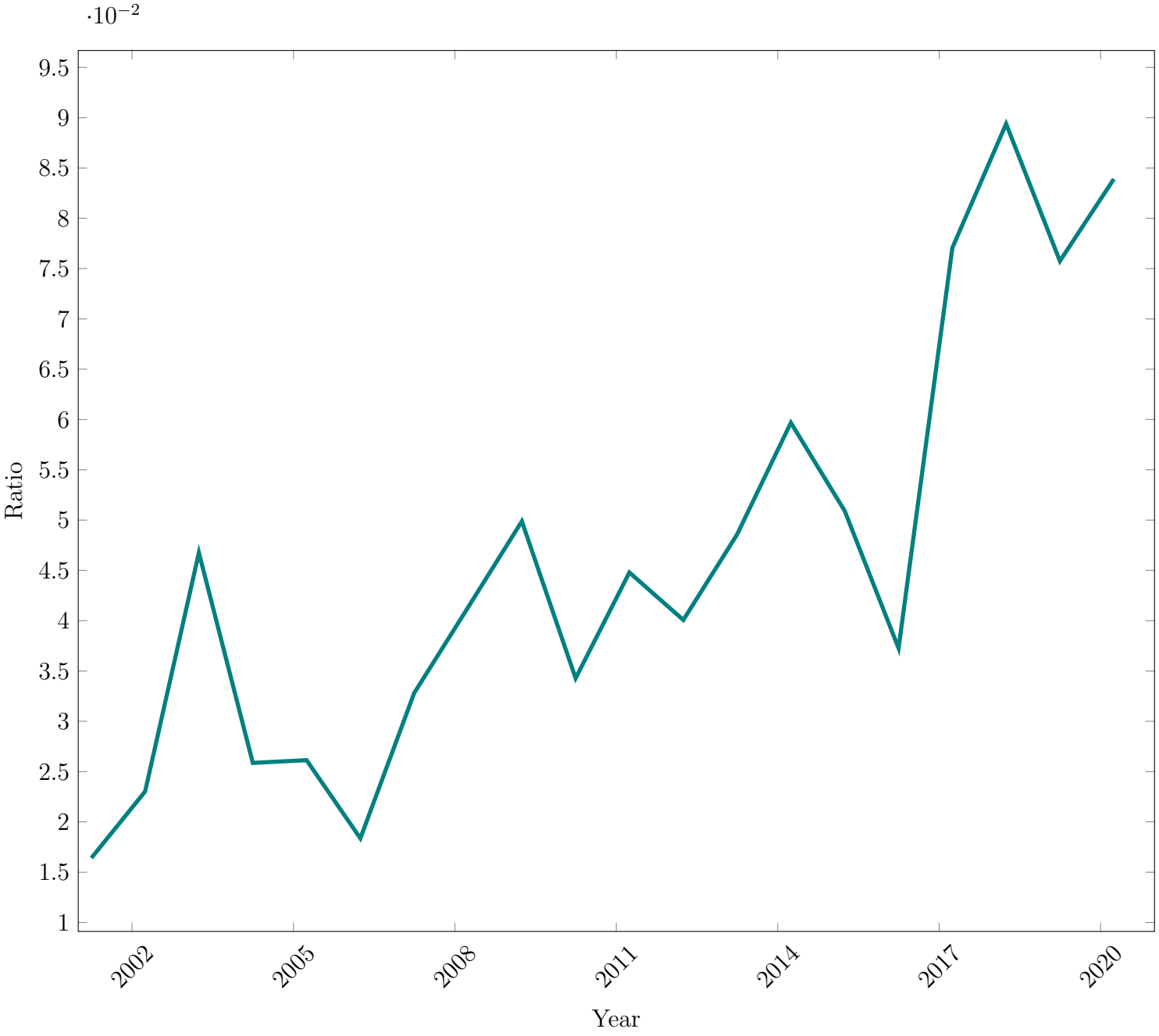
Figure 24: Share of Top Countries as Destination for Migrants from India



Note: Data as of 2017

Source: Author's estimation using World Bank Data

Figure 25: Remittance Payments-Receipts Ratio



Source: Author's estimation using RBI Database on Indian Economy