

III. Global imbalances: an old challenge on the rise?

Current account and financial imbalances in the global economy have returned to the spotlight of the policy debate. Imbalances that reached a peak in the run up to the global economic and financial crisis have been reduced since then and nowadays show different patterns. This section explores the main drivers of current account and financial imbalances in the US, China and the euro area. Our main findings point to some potentially problematic trends in saving - investment and stock accumulation. Valuation effects might also be important in this regard. We also consider various policy scenarios, including a recalibration of the US policy mix, the introduction of protectionist measures, or a disorderly adjustment in the Chinese financial sector, in order to identify possible short and medium term risks that could lead to the widening or disorderly adjustment of global imbalances. The section concludes with some implications for domestic policy and international cooperation to rebalance the global economy in a sustainable way. In particular, continued vigilance and comprehensive, well-sequenced and coordinated policy efforts are important to avoid the rebalancing resulting in lower or less inclusive growth in the medium term. ⁽¹²⁷⁾

III.1. Introduction

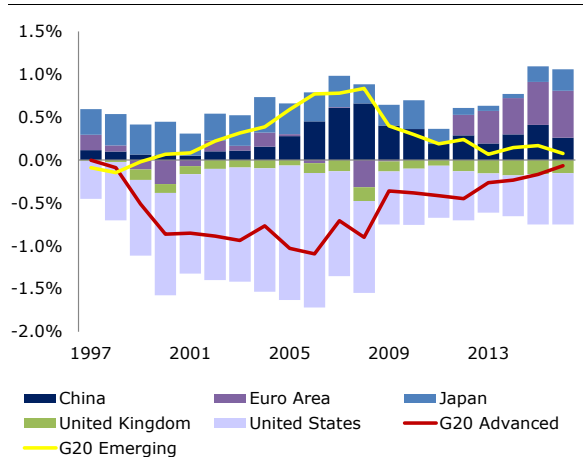
Global imbalances - as measured by current account surpluses and deficits - are kept under close scrutiny because persistently high imbalances might have potentially harmful spill-overs if unwound in a disorderly fashion. ⁽¹²⁸⁾ This is especially true for three of the biggest world economies (the US, China and the euro area) which are the main focus of this section. In Sub-section III.2 we set out some stylised facts related to the development of global current account imbalances in the last two decades. In Sub-section III.3 we investigate imbalances through three different angles looking at: trade and its determinants; saving-investment developments; and stock accumulation (including valuation effects). The resulting analysis argues in favour of continued monitoring of global imbalances. This becomes even more important given the potentially significant spillovers among the major world economies. In this context, we consider various policy scenarios (Sub-section III.4) which could lead to a renewed widening of global imbalances. In the short term, the main risks to further widening of global imbalances relate to a possible recalibration of the US macro policy mix and an unexpected change in the pace of normalisation of monetary policy in the euro area. In the medium term, risks to global imbalances stem from the possibility of trade protectionist pressures in the US and a hard landing of China's economic activity. In Sub-section III.5 we put forward policy suggestions for domestic policy and international

cooperation to rebalance the global economy in a sustainable way. Domestic policy suggestions are articulated around the need to use all policy levers to reduce imbalances in a sustainable way. Furthermore, in a globalised world, stronger international consensus and cooperation on the need to reduce imbalances in a more symmetric way could provide much-needed support to policy-makers at home. Sub-section III.6 concludes.

III.2. Stylised facts about global imbalances' evolution and projections

From the mid-1990s current account imbalances in major economies (China, US, Japan, Germany) grew steadily to reach a peak in the run up to the

Graph III.1: Current account balance, 1997-2016



Source: Authors' calculations based on IMF data.

⁽¹²⁷⁾ This section was prepared by Guergana Stanoeva and Bogdan Bogdanov, with contributions from Rupert Willis, Przemyslaw Wozniak, Alan Gilligan, Leonor Coutinho and Marco Lo Faso.

⁽¹²⁸⁾ Please see Box III.1 at the end of the section for a definition of global imbalances.

global economic and financial crisis ⁽¹²⁹⁾ (see Graph III.1).

The US and China became the epitome of imbalanced economies with deficits and surpluses whose absolute amounts reached record heights at more than US\$805bn in 2006, and US\$420bn in 2008 respectively. The US has run chronic current account deficits for almost two generations (recording external surpluses in only three of the 38 years since 1980 (Reinhart (2017)) ⁽¹³⁰⁾, while China has run a current account surplus since the mid-1990s, contrary to standard textbook reasoning in which developing countries are expected to register current account deficits. As regards the euro area as a whole, up to 2009 the current account was relatively close to balance.

The years of the global economic and financial crisis brought a significant change in global current account imbalances both in terms of magnitudes and configuration: the US deficit and Chinese surplus both fell below 3% and surpluses of oil exporters dropped dramatically, while the German surplus increased to 8.3% of GDP in 2016 (to more than US\$288bn). Japan's current account surplus fell temporarily, but rose again to 3.8% in 2016. Since the sovereign debt crisis, the euro area surplus entered an upward trend, and has just recently stabilised at above 3% of GDP, equivalent to more than US\$410bn.

Going forward, the IMF does not project major changes in current account imbalances of the US and Japan, while they foresee a slight reduction in the euro area and German current account surplus by the end of their forecasting period (2022) and expect China's account to be broadly balanced (IMF October WEO 2017). ⁽¹³¹⁾ The European Commission forecast (made under a no-policy-change assumption) also points to a relatively stable level of imbalances in the US and Japan (slight widening until the end of the forecast period in 2019) and the euro area (slight reduction to below 3% of GDP). A more significant reduction in the current account surplus is expected for Germany (from 8.5% in 2016 to 7.2% in 2019) and China (from 1.7% to 0.8%).

⁽¹²⁹⁾ Major commodity exporters such as Saudi Arabia and Russia also ran important surpluses but they are not the focus of this section.

⁽¹³⁰⁾ Reinhart, C. (2017), The Persistence of Global Imbalances, *Project Syndicate*, Aug. 30, 2017.

⁽¹³¹⁾ IMF (2017), Seeking Sustainable Growth: Short-Term Recovery, Long-Term Challenges, *World Economic Outlook*, October 2017.

To sum up, current account imbalances between advanced and emerging countries went through a significant correction at the time of the global financial crisis. ⁽¹³²⁾ We are now faced with a new configuration where current account imbalances have become concentrated among major advanced economies, with the euro area registering a current account surplus that is larger relative to the past.

III.3. Current vulnerabilities: The many faces of global imbalances

The post-crisis reduction of current account imbalances *per se* and the relatively benign forecast for their evolution in the future is not a reason to take imbalances off the radar screen. Reductions in current account imbalances can mask undesirable underlying economic and financial evolutions. ⁽¹³³⁾ We look into more detail into these and expose some important issues of concern. These justify the continued attention on global imbalances, although from different angles as we discuss below.

The current account balance for a given country can be seen through different angles: as the sum of the trade balance and net international income ⁽¹³⁴⁾; as the difference between domestic savings and investment; and as the counterpart of changes in net international investment positions (where capital transfers and valuation effects are also considered).

These three viewpoints are interrelated – in national accounts the difference between savings and investment must, by definition, equal the current account deficit (the sum of the trade balance and net international income), while the annual current account deficit (or surplus) in turn must equal the change in the net borrowing/lending position of a country vis-à-vis the rest of the world for that period (leaving aside valuation effects and capital transfers). In causal terms, the relationship is extremely complex, with trade-related factors, structural factors and financial

⁽¹³²⁾ In what follows we do not intend to estimate what part of the correction was due to cyclical and what to structural factors. Both had their role.

⁽¹³³⁾ On the importance of global financial imbalances see for example Borio, C. and Disyatat, P. (2015), Capital Flows and the Current Account: Taking Financing (more) Seriously, *BIS Working Papers*, no. 525.

⁽¹³⁴⁾ Net flows related to the international investment income are usually relatively low, so we do not focus on them further on.

factors each influencing the current account both directly and indirectly. ⁽¹³⁵⁾

III.3.1. Trade balance

Looking at imbalances through the prism of trade balances allows for a greater focus on structural trade changes, terms of trade and exchange rates' developments to explain the evolution of imbalances. These drivers do not necessarily evolve in the same direction so their net effects might differ from period to period and from case to case.

Part of the current account adjustment across the board during the global financial crisis coincided with the sharp disruption in trade flows. ⁽¹³⁶⁾ There is broad consensus that the trade collapse observed in 2008 was mostly due to a demand shock affecting commodity prices (tumbling down) and the production and exports of manufacturing goods as private demand for durable and investment goods crashed (Baldwin 2009, ECB 2010). ⁽¹³⁷⁾ The impact was amplified by financial market reactions, lack of confidence and trade finance as well as “compositional” and “synchronicity” effects in which international supply chains played a central role. At the same time, however, the more recent pick up in trade is not necessarily associated with an increase in imbalances globally.

Another important factor explaining the post-crisis reduction of the surpluses of commodity-exporting countries is the significant change in oil prices and the development of the shale industry in the US. Lower oil prices and higher domestic supply both tend to reduce US energy imports, lowering the US

deficit. ⁽¹³⁸⁾ The oil price decline may have also contributed to keeping the euro area surplus at its high level. At the same time, the nominal effective exchange rate appreciation of the USD that started in mid-2011 has weighted on US competitiveness and put upward pressure on the current account deficit until end-2016. Trade volumes in China showed a large offset of the terms-of-trade income gains, although in this case reflecting policy stimulus. In the euro area the current account surplus started widening in the aftermath of the sovereign debt crisis during a time when the real effective exchange rate of the euro was higher than it is now. The oil price decline and exchange rate depreciation from 2015 to early 2016 have contributed further to keeping the euro area surplus at its high level; however, demand compression in previously deficit countries, not offset by an increase in domestic demand in the surplus countries (mainly Germany) arguably played a more important role.

To sum up, trade and exchange-rate-related factors play a role in determining current account imbalances. In particular, it might turn out that the shale gas revolution in the US becomes the real permanent game changer, but more time is needed to see whether this could outweigh all other factors that drive imbalances (of the US or of other oil importing countries) in a different direction. Similarly, the RMB is becoming more flexible with time, but it seems too early to conclude this will have a lasting and significant net effect on the Chinese trade balance. Thus, a holistic approach is warranted when monitoring trade-related changes of current account imbalances.

III.3.2. Domestic savings and investment balance

Countries that invest more than they save must, by definition, run a current account deficit and be net capital importers. It is therefore useful to look at the evolution of current account balances by comparing shifts in savings and investment, and the gap between them. International investment rates vary a lot over the business cycle, are driven by short and longer-term considerations and are prone to policy interventions. Savings rates (of the government, corporates and households) are driven in various proportions by the adequacy of the

⁽¹³⁵⁾ The different viewpoints on the current account are ultimately complementary, though mapping the precise causal links is complex. For example, in theory, a weaker exchange rate could lead to higher net exports, boosting domestic income. This would in turn raise aggregate domestic savings, assuming a fixed proportion of savings from income of different sectors (households, corporate, government). This would narrow the gap between domestic saving and domestic investment, and lower the current account deficit. Conversely, shifts in spending out of disposable income at sector level could alter imports and exports, entirely independently of changes in exchange rates.

⁽¹³⁶⁾ World trade experienced a sudden, severe, and synchronised collapse in late 2008 – the sharpest in recorded history and deepest since the Second World War. The drop was sudden, severe, and synchronised prodding some economists to qualify it as the Great Trade Collapse (Baldwin (2009), *The Great Trade Collapse: What Caused It and What Does It Mean*, *VoxEU.org*, 27 November 2009). It was triggered and helped spread by the global financial crisis. Following this severe downturn, world trade recorded a rebound starting in the second half of 2009.

⁽¹³⁷⁾ Baldwin (2009), *ibid.*; ECB (2010), *Recent Developments in Global and Euro Area Trade*, *ECB Monthly Bulletin*, August 2010.

⁽¹³⁸⁾ The oil price decline may have also contributed to keeping the euro area surplus at its high level.

social safety nets and the pension system, the national fiscal framework, the degree of financial development, the income levels and the stock of financial wealth, as well as longer-term demographic and cultural factors.⁽¹³⁹⁾ For example, in an economy with a high level of financial development, ease of access to credit could affect both corporate investment and household savings behaviour, while the tax structure for corporate debt and equity as well as dividends and capital gains could also influence corporate saving.

In the lead up to the global financial crisis aggregate investment and saving rates moved in exactly opposite directions in the US and China. The deterioration of the US current account balance until 2006 largely reflected a steadily declining aggregate gross savings rate.⁽¹⁴⁰⁾ This was mainly due to a secular decline in household savings. The expanding availability of credit to households, and the steady increases in households' net worth reflecting rising house and equity prices are typically cited among the main reasons behind the trend decline in household savings.⁽¹⁴¹⁾ Aggregate investment also declined, with private businesses leading the trend, accompanied by a mild decline in government investment.⁽¹⁴²⁾ However, the decline of aggregate investment was larger than the decline in aggregate savings, leading to an overall increase in the current account deficit of the US.

The global financial crisis brought important changes to some of these trends. In the US, there was a marked rebound in savings accompanied by a milder rebound in investment, producing a significant improvement in the saving-investment balance and the resulting narrowing of the current account deficit. Improvements in household and private business savings (linked to the balance sheet deleveraging following the bust of the real

estate boom) outweighed the initial stimulus-driven deterioration in general government deficit. Coupled with the subsequent consolidation of public finances (from 2011), this led to a significant 5 pps. increase in total economy savings (from 2009 to 2015). During the same period (2009-2015) investment has picked up accordingly, but less than savings. The pickup of investment reflected mostly a rebound in private (business) investment, while household investment remained depressed by the ongoing deleveraging and public investment continued its trend decline. The resulting lower saving-investment gap translated into a further contraction in the US current account deficit.

In terms of the savings-investment balance, over the period 2000-2008 China saw a steep rise in the share of investment in GDP, but this was more than matched by an increase in the share of gross saving in GDP. The increase in savings was particularly visible in a sharp increase in the household savings rate, which occurred despite a fall in household income share in GDP. The reasons behind this change in savings ratio are debated, but demographic factors (one child policy), financial repression and the erosion of China's social security safety net may have all played a role. The government's financial position also improved significantly, with net lending of the public sector registering a surplus in 2008 and the corporate sector's retained profits rose to a peak in 2008. In short, all three sectors contributed to a rise in savings through a shift in sectoral savings rates, but with the most marked shift being at household level.

The rapid expansion in investment from 2007-2011 was not accompanied by any significant change in China's national savings rate, which remained close to 50%. As a result, the current account surplus narrowed sharply to below 2% of GDP in 2011.

Since 2011 both investment and saving as a share of GDP have fallen by around 4pps. of GDP as China has managed some rebalancing of demand away from investment towards higher consumption. This appears to mainly reflect a shift in household behaviour. The household income share of GDP has remained quite steady at around 61% since 2011 but the savings rate (saving/disposable income) has fallen by several percentage points, while the gap between household saving and investment is even more pronounced as household investment also saw some decline over this period.

⁽¹³⁹⁾ Rocher, S. and Stierle, M.H. (2015), Household Saving Rates in the EU: Why do they Differ So Much?, *EC European Economy Discussion Papers*, Discussion Paper 005 | September 2015, study the factors which may help explain the persistent differences in household saving rate across the EU. They find that income levels, age dependency and uncertainty can explain more than half of the cross section variance in saving rates. However, large unobserved country fixed effects (e.g. because of institutional differences and measurement error) also appear to be present.

⁽¹⁴⁰⁾ From around 22% and 20% in the 1970s and 80s to around 15% in the run up to the crisis.

⁽¹⁴¹⁾ See Bergin, P. (2011), Asset Price Booms and Current Account Deficits, *FRBSF Economic Letter* 2011-37, December 2011.

⁽¹⁴²⁾ This decline, common to most advanced economies has often been linked to the issue of secular stagnation.

As regards the euro area, although its current account was broadly balanced in the years before the sovereign debt crisis, there was a marked difference in saving and investment patterns across countries, generating diverging current account positions within the euro area. These differences were then exacerbated as convergent nominal interest rates coupled with different inflation rates across Member States led to different real interest rates and thus different investment opportunities backed by similar risk assessments. The result was above average (and often misallocated) investment and below average savings in debtor countries, and under-investment and high rates of saving in creditor countries.

The pre-crisis savings-investment developments within the euro area signalled fundamental macroeconomic imbalances and insufficient real convergence.⁽¹⁴³⁾ The sovereign debt crisis which was associated with a reassessment of risks led to significant corrections in the saving-investment balances mainly of deficit economies and mainly through a contraction of previously unsustainable investment levels. Since 2009, euro area savings have increased from 20.7% of GDP in 2009 to 23.6% in 2016. At the same time investment declined from 23% in 2008 to 20.2% in 2016. As a result, the euro area current account surplus has started to grow. In 2017, the size of the German current account surplus was about half of the euro area one. Looking forward, the outlook for investment is now more favourable (EC 2017).⁽¹⁴⁴⁾ Investment is expected to be driven mostly by a robust growth in equipment investment and by a projected recovery of construction investment.

To sum up, significant shifts in saving-investment ratios have contributed to the changed landscape of global imbalances. However, in some cases we see that these shifts are insufficient, do not always go in the right direction or do not follow an appropriate pace. For example, in the US, tax policy has systematically favoured debt accumulation by households at the expense of saving, hence the persistent deficits. This has

changed little in the post-crisis period. In China, investment demand remains excessive as a share of GDP, and will have to fall on a secular basis if China is to rebalance its economy effectively. To avoid this leading to a re-emergence of sizeable current account surpluses, domestic saving ratios will need to fall even further. In the EU, countries with current account deficits or high external debt should raise productivity while containing unit labour costs. Member States with large current account surpluses should implement, as a priority, measures, including structural reforms and fostering investment, that help to strengthen their domestic demand and growth potential. From a euro-area wide perspective, making progress with completing the single market, the Banking Union and the Capital Markets Union are essential to unlock investment and channel savings in a more efficient way thus allowing for a more symmetric intra-euro-area adjustment and *in fine* a more balanced current account.

III.3.3. Stock imbalances (international investment positions)

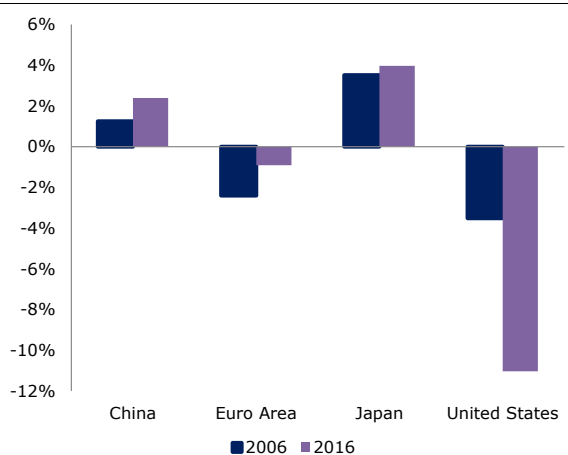
Although global current account imbalances have narrowed since the crisis, the external stock imbalances, as measured by countries net international investment positions (NIIPs) of the major economies continued to build up.⁽¹⁴⁵⁾ In 2016, stock imbalances had grown by around 65% (or added 10 pps. of global GDP) compared to ten years earlier. Importantly, these imbalances remained mainly polarised among advanced economies (US, Japan) and China (Graph III.2).

⁽¹⁴³⁾ On capital misallocation in the euro area prior to the crisis and the importance of real convergence for monetary policy see for example Coeuré, B. (2017), Convergence Matters for Monetary Policy, *Speech by Benoît Coeuré at the Competitiveness Research Network Conference on "Innovation, Firm Size, Productivity and Imbalances in the age of De-Globalization"*, Brussels, 30 Jun 2017.

⁽¹⁴⁴⁾ EC (2017), European Economic Forecast: Autumn 2017, *EC European Economy Institutional Papers*, Institutional Paper 063 | November 2017.

⁽¹⁴⁵⁾ For a detailed investigation of the dynamics of international investment positions of some individual euro-area countries up to 2011 see EC (2012), The Dynamics of International Investment Positions, *Quarterly Report of the Euro Area*, March 2012.

Graph III.2: Net international investment position, 2006 versus 2016 (percent of world GDP)



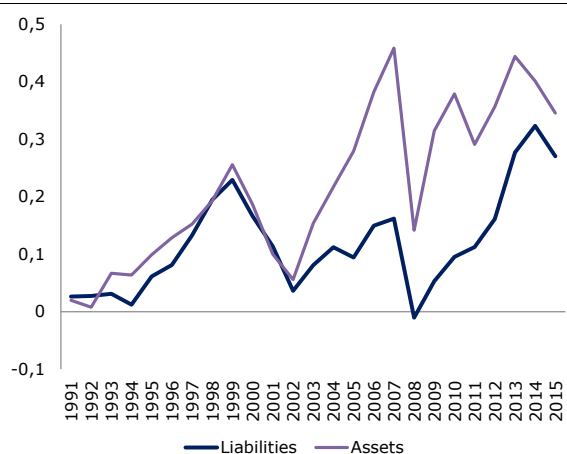
Source: Authors' calculations based on IMF data.

On the creditor side, the accumulation of net foreign assets between 2006 and 2016 mainly reflects persistent current account surpluses in Japan and China. The growth in creditor positions was mirrored almost entirely by a remarkable three-fold widening of the US net debtor position driven by continuous current account deficits and significant valuation effects. Although still a debtor economy, the NIIP of the euro area has improved significantly over the period driven by stronger current account balances of its individual country members.

The reasons for the evolution of the US NIIP and the risks it could bring are worth focusing on as the deterioration of the US external position alone appears to be the most important development since the crisis. Although the US has been the financial hegemon in recent economic history, having a significant economic weight in terms of GDP (around a third of G20 GDP) and financial flows (around a quarter of G20 capital flows throughout 2001-2016), today its NIIP represents around 45% of the total G20 stock imbalances compared to roughly half of that ten years ago. This is mainly driven by a higher valuation of US foreign liabilities and to a higher stock of borrowing from the rest of the world to finance domestic investment and consumption (Graph III.3). Furthermore, when US liabilities are decomposed into short- and long-term financial assets it becomes clear that short-term investment instruments are the main driver of the recent upward trend in US liabilities, and thus, contribute most significantly to the recent evolution of the US

valuation effects as a whole (Graph III.4). This finding implies greater likelihood of market volatility in the event(s) of valuation corrections.

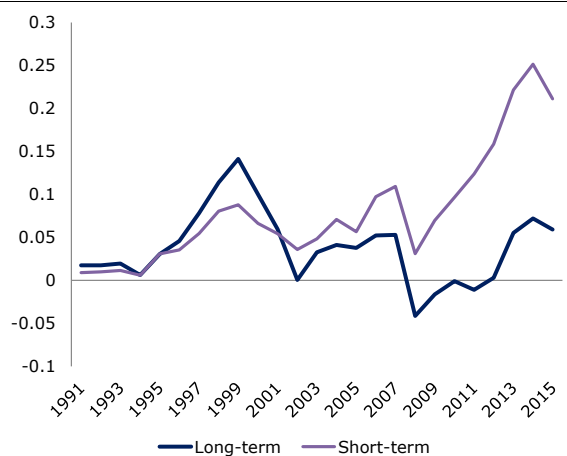
Graph III.3: US valuation effects - breakdown assets and liabilities



(1) Valuation effects are measured as the change in foreign assets/liabilities between two consecutive periods minus the conventional financial account.

Source: Authors' calculations based on IMF data.

Graph III.4: US valuation effects - short term and long term



(1) Long term investment is defined as foreign direct investment. Short term investment is defined as the sum of portfolio and other investment.

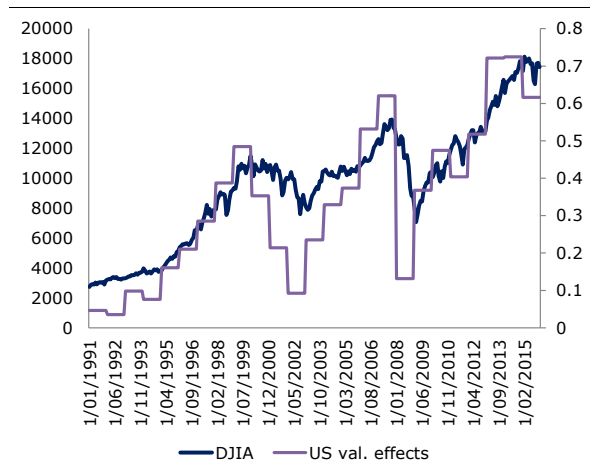
Source: Authors' calculations based on IMF data.

In principle, valuation effects are comprised of two main components: changes in exchange rates and domestic asset prices. However, as the US liabilities are almost entirely denominated in USD, we only focus on the US asset prices on which multiple domestic factors can have a direct and/or indirect impact. Both fiscal and monetary policies can affect interest rates, which in turn affect asset prices. External factors could also have an effect

on exchange rates and domestic asset prices, most prominently through surges of capital flows due to various push and pull factors such as differences in the economic outlook and the expected policy response.

The performance of the Dow Jones Industrial Average (DJIA) is one of the indicators that can be used as a proxy for valuations in the US domestic asset prices. The DJIA has a strong positive correlation with the actual US valuation effects (with a correlation coefficient of 0.85) over the period 1990-2015. Furthermore, the strength of DJIA as a proxy variable is visually confirmed when plotting these two variables together (see Graph III.5).⁽¹⁴⁶⁾

Graph III.5: Dow Jones Industrial Average and Valuation Effects



Source: Authors' calculations based on Dow Jones Stock Market data.

Our estimations show that both cyclical and structural factors, in particular employment and productivity, contribute to explaining the movements and size of US domestic valuations effects. Moreover, monetary and fiscal policies as well as business confidence expectations also seem to impact the stock market – and thus have valuation effects. In all estimations, the coefficient signs are in line with expectations with results being broadly robust and statistically significant.⁽¹⁴⁷⁾

⁽¹⁴⁶⁾ Investigating in detail the role of nominal exchange rate variation on the valuation of net external liabilities is beyond the scope of the present paper.

⁽¹⁴⁷⁾ See Box III.2 at the end of the section for time-series analysis specifications and results.

To sum up, the widening of global stock imbalances has mainly been driven by the deterioration of the US external position. Valuation effects on the US external liabilities seem to play a significant role in this picture further aggravating the US NIIP. Taking the stock market index of Dow Jones Industrial Average as a proxy to the evolution of the domestic US valuation effects, we find that both cyclical and structural factors drive the movements of US valuations. Last but not least, it is likely that a limited number of countries in which the bulk of US external liabilities is held are potentially exposed to the significant US valuation effects and therefore to the risks related to a correction in US asset prices and/or the USD exchange rate.

The above analyses on trade balances, saving-investment dynamics and stock imbalances confirms that close monitoring of global imbalances is warranted. Trade, exchange rate developments, shifts in savings and investment trends and international investment positions (together with valuation effects) all affect current account developments. The importance of a given factor changes over time and varies across countries. Thus, it makes sense to follow all of these to have a comprehensive view. This is the more relevant given that *a priori* spillovers among systemic economies like the ones considered here can be expected to be higher. The risks from changes in the policy mix to global imbalances are discussed below, differentiating between short- and medium-term risks, with the latter having lower probability (i.e. we qualify them as "tail" risks).

III.4. (Tail) risks to global imbalances: Possible scenarios

Potential shocks to global imbalances could be transmitted through the trade and financial channels. In this regard, decades-long economic integration has placed the transatlantic economies at the forefront of globalisation. The EU and the US are each other's most important economic partners, reflecting historical ties as well as a wide range of common fundamental values. At the same time, China has become a very important trade partner both to the EU and the US. China is the EU's largest trading partner, but only the second largest source of export demand, with China taking some 3.6% of total EU goods exports. While trade exposure to China remains limited, EU exports to China have grown twice as fast as the total EU exports over the past five years. Nevertheless,

direct European and American financial ties with China are relatively limited, partly due to the remaining restrictions on cross-border financial transactions, investments and banking activities in China.

III.4.1. Short-term risks

In the short term, the main risks to further widening of global imbalances relate to a possible recalibration of the US macro policy mix.

The recalibration of the US macro policy mix could materialise in the form of a stimulus through tax reform, including an opportunity to repatriate corporate profits from abroad (approx. US\$2.6tn of which more than half in cash). This could result in stronger US aggregate demand than currently projected which could trigger faster than expected normalisation of US monetary policy. If this were to lead to investor risk aversion globally, there could be significant spillovers in terms of capital flows, financial market stability and financial conditions. This would impact negatively the US and many emerging markets, and also Europe. The risks associated with a rapid increase in the price of risk are more substantial where leverage ratios are high, as they are now.

With the possibility of a faster US monetary policy normalisation and a stronger USD, emerging market economies (EMEs) could be faced with a prospect of more financial market volatility, higher bond yields, depreciating currencies, intensified inflationary pressures and capital outflows.⁽¹⁴⁸⁾ The likely response could be tighter monetary and financing conditions and in this context the recent fast accumulation of debt, either public or private, in many EMEs becomes a source of risk. Funding pressures would increase where corporate balance sheet exposure to unhedged USD-denominated debt is high. The overall level of USD-denominated debt in EMEs is, however, not particularly worrying and does not appear to be a source of a major systemic risk as most EMEs have natural hedges, financial market hedges and/or sufficient foreign currency reserves. In emerging Asia, where non-residents have sizeable holdings in the regional securities markets, there is the risk that

US monetary policy tightening might lead to sizable sell-off of the region's equities and bonds.

Some of the vulnerable emerging markets in such a scenario are in the European neighbourhood. Should these economies slow markedly, this would directly affect euro area exports, though reduced demand for euro area exports to the European neighbourhood would likely be compensated by higher US demand, with little net effect on the euro area surplus.⁽¹⁴⁹⁾ The widening US deficit would therefore not be expected to be matched with a significantly higher euro area current account surplus, but is more likely to have its counterpart in narrowing deficits in the UK, Canada, Australia, stronger surpluses in some emerging market economies, and expanding surpluses in China and Asia. These adjustments would likely arise through standard mechanisms, with higher US domestic demand pushing up imports, while the higher USD would also support higher imports and reduce export competitiveness.

The passage of tax reform in the US (Tax Cuts and Jobs Act (TCJA)) in December 2017 represents a significant overhaul of the US tax code which can be expected to impact on the evolution of the current account. Box III.3 provides some insights into the potential impact of an indicative tax reform (simplified to reductions in corporate tax rates equivalent to 1% of GDP) using the European Commission's QUEST model. The net effect would widen the already sizeable US trade deficit by around 0.2-0.3% of GDP, with this largely occurring in the first 2-3 years of the reform. This would also contribute to aggravating imbalances elsewhere, including in the euro area, where higher US demand and USD appreciation generate a small increase (0.1% of GDP) in the euro area trade surplus. In addition, tax incentives to repatriate profits became part of the US tax reform. The impact of these incentives on the euro area is highly uncertain and it will crucially depend on how effective they will be in attracting what is estimated to be \$1.5-2.5 trillion of untaxed overseas profits of US corporations (roughly 7.5-12.5% of GDP). However, it should be noted that previous US administration efforts at incentivising profit repatriation (largely tax holidays) have had

⁽¹⁴⁸⁾ Overall, a potential misalignment of exchange rates from fundamentals caused by market over-reactions to tapering could exacerbate global imbalances. This could stem, for instance, from episodes of strong rises in risk aversion in response to a large reassessment of term premia by investors.

⁽¹⁴⁹⁾ In the short-term, exchange rates mostly affect the EA current account through the income balance. Lower income from some EMEs would likely be offset by higher USD income, and thus entail some upward movement in the EA investment income balance.

limited success.⁽¹⁵⁰⁾ Thus, it is uncertain whether there would be large-scale inflows that could have repercussions on financial markets or interest rates, or could materially boost investment or wage growth.

III.4.2. Medium-term (tail) risks

The medium term tail risks to global imbalances stem from the possibility of increased and materialising trade protectionism by the US and hard landing of China's economic activity.

The existence of persistent trade deficits among a few advanced economies has heightened the risk of protectionist responses. Thus, an inward-looking shift of US policies (especially if based on a sectoral approach with implications for China and the EU) remains a key risk, particularly as the Trump administration has directly associated declining employment across US manufacturing sectors with the US current account deficit.

In implementing protectionist policies (e.g. through tariffs on imports), US employment and investment growth would be expected to slow given the economy's exposure to international trade, with these adverse impacts expected to be especially pronounced in tradable sectors. Correspondingly, inflation can be expected to rise as domestically-sourced substitutes become more expensive, in turn contributing to tighter financing conditions as interest rates rise. Taken together, these dynamics would most likely lead to a deceleration in GDP growth in the near term, as well as some correction of asset prices. The US current account deficit would be expected to shrink, albeit only modestly as the competitiveness gains from import tariffs are to a large extent offset by USD appreciation. While protectionist policies would see imports contract, the impact of USD appreciation would also be seen on exports, even without a retaliatory response from key trading partners. More inward-looking policies could also trigger a correction in asset valuations and an increase in financial market volatility. These adverse outcomes, both for the US and the global economy more generally, would be amplified further in the case of trading partners pursuing protectionist measures of their own.

Sector-specific protectionism and consequent retaliation measures would likely have a measurable impact on euro area GDP, but are not expected to make a huge dent in aggregate exports or income from production in foreign subsidiaries. Recent experience with specific export markets (notably Russia, the UK), suggests that lower receipts from exports are broadly matched with reduced investment in the affected sectors, with little impact on the overall savings-investment balance. The trade balance impact should thus not be strong although it might be somewhat more substantial for measures on investment goods.

However, significantly stronger risks may emerge if the impact is more significant on EMEs, and they retaliate against such policies, which could hit also euro area exports, and thus GDP. Many EMEs are strongly exposed to the US either through direct trade links (e.g. Latin American countries) or, as in the case of several Asian economies, indirectly through China. While there may be some positive spillover effect of the planned US fiscal stimulus on some commodity-exporting EMEs, the overall impact on EMEs exports would likely be negative. Mexico stands out as the biggest potential loser from more protectionist US policies as the Mexican and US economies have become increasingly interdependent under NAFTA. In emerging Asia excluding China, direct trade exposure to the US is relatively significant (although less than in Latin America) in a number of countries including Malaysia, Thailand and Korea. Nonetheless, even a worldwide surge in goods protectionism is unlikely to affect current account balances much as demand for imports will decline along with exports.

Another tail risk relates to a combination of factors in China that has raised vulnerabilities in its financial sector. While an abrupt adjustment does not seem imminent, the current pattern of development appears unsustainable, and risks of a sharp slowdown in growth in the medium term continue to rise. In the event of a sharp slowdown, China may eventually allow the RMB to depreciate as a macroeconomic buffer. Under this scenario a sharp domestic slowdown in China would therefore hit import demand, while a lower currency value would also act to promote exports and compress imports. Slower growth in China could also affect commodity prices, which would tend to push down Chinese imports (in value terms). If China reacted with stimulus measures using traditional policy instruments – boosting infrastructure investment and investment by state

⁽¹⁵⁰⁾ See e.g. <http://www.taxpolicycenter.org/publications/repatriation-tax-foreign-income-us-based-multinational-corporations/full>

enterprises – this could work in the opposite direction, as investment demand tends to be relatively import intensive. The stimulus in the wake of the 2007 crisis was investment intensive and this was one of the factors that helped pull down the current account surplus in the period 2007-2010. In sum, the net effect of a slowdown in China would most likely be to increase China's current account surplus, though the scale of the effect would depend on the precise policy mix on the Chinese side.

Direct and indirect trade impacts from a sharper-than-expected slowdown in China would not be sufficient to derail a recovery in the euro area, though the impact would differ greatly among Member States, depending on the scale and structure of trade linkages. Direct financial linkages are limited by the relatively closed nature of Chinese financial markets. However, concerns over Chinese growth prospects and spill-overs to emerging markets could lead to increased financial market volatility and risk aversion with knock-on effects on the euro area economy. Lower commodity and oil prices are supportive of euro area recovery, but a weaker RMB and additional downward pressure on emerging market currencies more generally could push up the euro's exchange rate. A more pronounced slowdown in China and emerging markets could therefore represent downside risks to both growth and inflation in the euro area going forward, posing additional challenges for ongoing deleveraging.

To sum up, there are still important risks associated with global imbalances, their potential increase and disorderly adjustment. This calls for increased vigilance, more forceful domestic policy action and sustained international policy coordination efforts to rebalance the global economy in a sustainable way. These are discussed in the following subsection.

III.5. Domestic and international policy efforts to rebalance the global economy

III.5.1. Domestic efforts to reduce imbalances

From the above analysis it is clear that there is much that economies with major imbalances can do on the domestic policy front to reduce imbalances when these reflect structural impediments to a more balanced growth. This is important in view of potentially large spillovers between economies. Policy efforts need to be

comprehensive and well sequenced so that reductions in imbalances do not come at the expense of lower or less inclusive growth, notably in the medium term.

In general, global rebalancing should take place through increasing domestic demand in countries with current account surpluses, and increasing national savings in countries with current account deficits. This requires where necessary actions on fiscal, tax, monetary and exchange rate policy, and financial and structural reforms.

More specifically, policies for the US to address its current account imbalance could include (i) measures to address persistent domestic savings-investment gaps, including by reining in large public sector deficits; ii) improving US competitiveness via a series of well-targeted structural reforms, including in education, skills, upgrading infrastructure, policies to address the issue of declining labour force participation; and (iii) an active push for world-wide liberalisation in services trade where the US has a clear comparative advantage.

As regards China, there is a general consensus that China's economy remains highly imbalanced, and there is a need to further reduce the share of investment in GDP, or engineer a sharp increase in investment efficiency. This is necessary, if China is to avoid a significant slowdown in growth in the medium term. To keep growth buoyant in both the short and medium term China therefore requires a sustained effective rotation of demand from consumption to investment. This could be achieved in two ways: adopt policies that raise the household share of overall income and introduce measures to further raise consumption out of given incomes (lower household savings rate). Reform of capital markets would also improve allocation of capital, particularly to smaller firms, thereby raising investment efficiency and reducing the need to rely on high profit retention (corporate saving) to finance investment. Moreover, imbalances could also be reduced by winding down remaining subsidies to favoured sectors or exporters, or removing non-tariff barriers that provide implicit subsidies that distort a "level playing field" and that channel resources away from consumers and toward producers. Finally, the exchange rate is the residual "buffer" that can act to balance export and import demand in the long run. China has shown a clear preference over a long period for a "managed" exchange rate. Whatever the future

exchange rate regime, exchange rates should be sufficiently flexible to avoid the emergence of large sustained current account imbalances.

As regards the euro area, recommendations on policies to reduce imbalances have consistently been addressed in the context of the European Semester over the past years. For the 2018-2019 period, as recently recommended by the European Commission, it is important that euro area economies pursue policies that support sustainable and inclusive growth and improve resilience to economic shocks, rebalancing and convergence. Member States with current account deficits or high external debt should additionally aim at containing growth in unit labour costs. Member States with large current account surpluses should also promote wage growth and implement as a priority measures that foster investment, support domestic demand and facilitate rebalancing in the euro area.

III.5.2. International efforts to reduce imbalances ⁽¹⁵¹⁾

Domestic action is, however, not enough, especially because it might be avoided/deferred for two major reasons: (i) a current account deficit economy is a reserve currency issuer; (ii) a current account surplus economy (region) is under no immediate pressure to reduce its surplus. In addition, in a globalised world, spillovers are quicker to spread (given financial development). All this calls for increased international economic cooperation and peer pressure. However, given the persistence of global imbalances over the years, it has become clear that the International Monetary System is inadequately equipped to ensure a symmetric adjustment of global imbalances. Attempts to do so date back at least to Keynes without much success. ⁽¹⁵²⁾

The issue of global imbalances became prominent again in the 2000s. From early 2004, the International Monetary and Financial Committee (IMFC) had set out in each of its Communiqués the policies needed to help facilitate an orderly adjustment of global imbalances. In June 2006, the managing Director of the IMF announced the launch of the first multilateral consultation with the aim of addressing global imbalances while maintaining global growth. China, the euro area, Japan, Saudi Arabia, and the United States agreed to participate in the consultation. Each participant put forward its own set of proposed policy adjustments, which were also discussed by their peers. The IMF's role was to provide the analytical background, to assess the consistency and effectiveness of the proposed policy plans and favour a coordinated policy action among the major global players. The first round of consultations ended in 2007. In its report the IMF concluded that while the plans presented by the participants to the consultation fell short of its recommendations, they went "in the right direction" and, if fully implemented, could lead to narrower imbalances and more balanced world growth. ⁽¹⁵³⁾ However, a second round of consultations to monitor the progress made and adopt new measures never took place, and the world economy entered into the global financial crisis with very large imbalances, which added complication to an already difficult picture.

Since 2012, the IMF has again stepped up its work on imbalances with the External Sector Report (ESR) that has been published annually since then. The report covers 28 of the world's largest economies plus the euro area with staff assessments drawing on estimates from the External Balance Assessment (EBA) approach as well as country-specific evidence and judgment, while acknowledging the uncertainties inherent in such assessments. The ESR is an important

⁽¹⁵¹⁾ The European Macroeconomic Imbalances Procedure is *de facto* an advanced international effort to tackle imbalances within the EU. For a thorough discussion on it see (EC (2016), *op. cit.*).

⁽¹⁵²⁾ Williamson (2011) notes that Keynes's original blueprint for a post-war monetary order contained elaborate proposals to pressure surplus countries into contributing to adjustment. These were rejected by the US, which at the time regarded itself as a permanent surplus country. Several decades later, in the attempt to reform the international monetary system after the collapse of the Bretton Woods arrangements, the US itself made a similar proposal (although still in a current account surplus at the time, its current account surplus did not match its capital outflows) which was brought down by the great surplus country of the day Germany, together with its European partners (Williamson (2011), Getting Surplus Countries to Adjust, *PIIE Policy Brief*

Number PB11-01, January 2011). The G7 also tried to tackle the issue in the 2000s (see Obstfeld, M. and Rogoff, K. (2009), "Global Imbalances and the Financial Crisis: Products of Common Causes, *Federal Reserve Bank of San Francisco Asia Economic Policy Conference*, Santa Barbara, CA, October 18-20, 2009) without much success.

⁽¹⁵³⁾ IMF (2007a), Staff Report on the Multilateral Consultation on Global Imbalances with China, the Euro area, Japan, Saudi Arabia, and the United States, June 2007; IMF (2007b) IMF Executive Board Discusses Multilateral Consultation on Global Imbalances", *Public Information Notice 07/97*, August 2007; Blanchard, O. and Milesi-Ferretti, G.M. (2009), "Global Imbalances: In Midstream?", *IMF Staff Position Note*, December 22, 2009.

analytical tool which facilitates a multilateral dialogue on the contentious issue of external imbalances.

The issue of global imbalances was also taken up by the G20. ⁽¹⁵⁴⁾ In the run-up to the Seoul Summit in November 2010 the discussion focused on how to address effectively global imbalances. In Seoul an agreement was reached: the G20 would develop 'indicative guidelines' to help provide policy advice aimed at ensuring a more balanced growth among G20 economies. The 'indicative guidelines' were approved at the Cannes Summit (November 2011) and it was agreed that every two years the IMF would produce a report (the so-called "Sustainability Report") based on the agreed 'indicative guidelines' methodology to discuss progress and provide policy recommendations to G20 members. The latter were expected to take them up in their country-specific commitments which grew into fully-fledged growth strategies over time. In 2017, the IMF integrated its global imbalances analysis into a new pilot Report on Strong, Sustainable and Balanced Growth ⁽¹⁵⁵⁾ which takes a holistic view of the achievements of G20 economies (discussing all aspects of growth), not focussing only on global imbalances. In this new Report, the IMF uses mostly the EBA methodology to make its point, supported by the outcomes of the 'indicative guideline' methodology which are presented in an annex. To this day, although weak, the G20 remains arguably the most useful forum for discussion of imbalances, where some form of peer pressure on major imbalanced economies is exercised.

III.6. Conclusion

The recent reductions in global current account imbalances should not be a reason for policy makers to be complacent. Further analysis shows that, on the one hand, from a savings-investment perspective, impediments to a sustainable reduction in global imbalances are still very much

present. The real challenges most often lie in structural bottlenecks that have been salient features of the major global economies for years. On the other hand, stock imbalances have increased, mainly on the back of a deteriorated US external position. Valuation effects on the US external liabilities seem to play a significant role with both cyclical and structural factors driving the movements of US valuations. Against this background, a possible recalibration of the US macro policy mix and the unexpected change in the pace of monetary policy normalisation in the euro area could increase the risk of widening of global imbalances in the short run. In the medium term, if the trade protectionist pressures materialise in the US and/or if China is subject to a hard landing of its economy, global imbalances could increase again. For the moment these are assessed as tail risks and some suggestions are put forward for policy actions that could prevent these from materialising, and to durably reduce global imbalances. These suggestions pertain to all policy levers (monetary, fiscal and structural policies) that should be used together to address imbalances. At the same time, the persistence of excess global imbalances shows that the automatic adjustment mechanisms in the global economy are weak while potential spillovers from domestic policy actions can be large. This calls for increased international policy cooperation. Continued vigilance and comprehensive, well-sequenced and coordinated policy efforts are as important as ever to address global imbalances. The credibility of major international fora as the G20 hinges largely on ensuring such a successful cooperation.

⁽¹⁵⁴⁾ Interestingly currently there is no much appetite to discuss the issue of global imbalances in the G7 forum. This would, however, be highly appropriate given the current concentration of imbalances in the major advanced economies.

⁽¹⁵⁵⁾ IMF (2017), G-20 Report on Strong Sustainable and Balanced Growth, October 2017.

Box III.1: Defining imbalances

Not all current account imbalances are "bad" and there is no unique definition of what "persistent" and "high" or "excess" imbalances mean. In the IMF reading (see IMF (2017)) ⁽¹⁾ an excess current account imbalance is the difference between the actual current account (stripped of cyclical and temporary factors) and the level assessed by staff to be consistent with fundamentals and desirable medium-term policies (or "norm"). This staff-assessed gap reflects policy distortions vis-à-vis other economies identified in the IMF External Balance Approach (EBA) models as well as other policy and structural distortions not captured by the model. A current account balance deemed to be "stronger" ("weaker") than implied by fundamentals and desired medium-term policies corresponds to a positive (negative) gap. Assessments also include a view on the real effective exchange rate (REER)—normally consistent with the assessed current account gap. A positive (negative) REER gap implies an overvalued (undervalued) exchange rate. REER gaps do not necessarily predict future exchange rates, and may occur in any economy, including those with floating exchange rates. In the EU legal framework excessive imbalances are "severe imbalances, including imbalances that jeopardise or risk jeopardising the proper functioning of the economic and monetary union" (Regulation No 1176/2011, Article 2). In the EU Macroeconomic Imbalances Procedure (MIP), a scoreboard of indicators with indicative thresholds serves as a filtering device for detecting *prima facie* cases of imbalances deserving further investigation. These thresholds as regards current account imbalances are 6% in the case of a current account surplus and 4% in the case of a current account deficit. The follow-up assessment of whether imbalances are to be considered excessive relies on analysis that makes use of updated and specific information at the country level and analytical tools developed by the Commission services and discussed in Council Committees ⁽²⁾. The G20 uses a similar "two-step" approach starting with an indicator based filter step, followed by an in-depth study step for selected economies ⁽³⁾.

⁽¹⁾ IMF (2017), External Sector Report 2017, *IMF Institutional Papers*.

⁽²⁾ For more on the MIP, see EC (2016), the Macroeconomic Imbalance Procedure Rationale, Process, Application: A Compendium, *European Economy Institutional Paper 039*, November 2016.

⁽³⁾ See for example IMF (2011), 2011 Staff Reports for the G-20 Mutual Assessment Process (MAP), November 2011.

Box III.2: Time-series analysis

A time-series analysis of monthly data in the period 1980-2015 attempts to explain the variability of the US valuation effects with a selection of explanatory variables, both of cyclical and structural nature. The generalised form of the model can be presented as:

$$Val.Eff_t = \alpha + \beta Struct_t + \gamma Cycl_t + \varepsilon_t$$

where $Val.Eff_t$ is a proxy for valuation effects (Dow Jones Industrial Average), α is the constant of the regression, $Struct_t$ are the structural explanatory variables (such as total factor productivity, labour productivity), and $Cycl_t$ are the cyclical explanatory variables (such as employment, unemployment, business confidence expectations, interest rates, monetary and fiscal policy stances) ⁽¹⁾ ⁽²⁾.

VARIABLES	(1) OLS	(2) OLS	(3) OLS	(4) OLS
Total Factor Productivity	0.254*** (0.0478)	0.149*** (0.0503)	0.185*** (0.0538)	
Labour Productivity				0.124** (0.0498)
Employment ⁽³⁾	2.735*** (0.930)	3.922*** (0.893)	3.463*** (0.793)	4.752*** (0.780)
Bus. Conf. Expectations		0.154*** (0.0336)	0.162*** (0.0311)	0.172*** (0.0308)
QE1 (dummy)			0.00166 (0.00847)	0.00214 (0.00893)
QE2 (dummy)			0.0258*** (0.00366)	0.0258*** (0.00369)
QE3 (dummy)			0.00805*** (0.00182)	0.00819*** (0.00185)
Gov. Budget Balance			1.122*** (0.419)	0.830* (0.436)
Constant	0.00288** (0.00125)	0.00180 (0.00122)	0.00347*** (0.00134)	0.000736 (0.00177)
Observations	443	443	443	443
R-squared	0.155	0.207	0.244	0.232

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

- (1) In all estimations, we use the growth rate of the variables. To reduce data noise and short term fluctuations of the monthly data, we transformed the explanatory variables using an eight-period forward and backward looking moving average function. The dependent variable is smoothed through a 6 period backward moving average function. This smoothing process allows to take in account that the output does not depend solely on the current value, but rather on a combination of present and past (or future) values.
- (2) For more information on the methodology see Bogdanov, B. and Filippeschi, G. (2017), "Financial Integration and Valuation Effects: Globalisation or Americanisation", EC European Economy Discussion Papers, Discussion Paper 045 | April 2017.
- (3) The beta coefficients for employment are larger than 1, suggesting a non-linear relationship with the DJIA index on monthly basis.

Box III.3: The US Tax Reform and External Imbalances

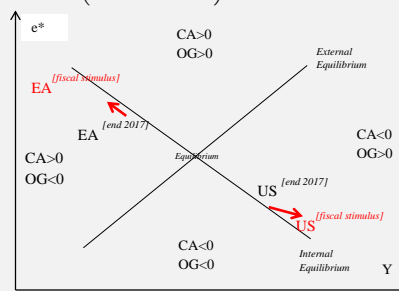
The passage of the tax reform in the US (Tax Cuts and Jobs Act (TCJA)) in December 2017 represents a significant overhaul of the US tax code and is set to provide stimulus to economic growth in the short term. Its provisions include temporary reductions and base-broadening measures across personal income taxes, as well as lowering the cost of capital through a permanent cut in the corporate tax rate and the immediate expensing of capital investment. However, from a qualitative viewpoint, the current late stage of the cycle and an economy that appears to be performing broadly at potential implies only a limited growth impulse from these measures; while also potentially aggravating longer-term challenges such as fiscal sustainability and reducing the US's persistently large current account deficit.

Using the European Commission's QUEST model to analyse the impacts of an indicative tax reform (simplified to reductions in corporate tax rates equivalent to 1% of GDP), the quantitative results broadly concur with this assessment. Indeed, US economic growth would increase by 1% after 10 years (or boosting annual GDP growth by around 0.1 pps.), while higher economic activity would place upward pressures on prices and thus provide further impetus to monetary policy normalisation and US dollar appreciation. ⁽¹⁾ The net effect of these dynamics would widen the already sizeable US trade deficit by around 0.2-0.3% of GDP, with this largely occurring in the first 2-3 years of the reform. This would also contribute to aggravating imbalances elsewhere, including in the euro area, where higher US demand and USD appreciation generate a small increase (0.1% of GDP) in the euro area trade surplus. ⁽²⁾

On the one hand, the deviations in the US (and trading partners') current account balances as suggested by the QUEST model appear modest at the aggregate level. However, this corresponds with the similarly limited size of the tax reform simulated, and extending this analysis to incorporate the specific provisions of the TCJA may provide for wider deviations than accounted for here; as would the increases in federal government spending agreed in February 2018 (Bipartisan Budget Act).

At the current juncture, however, it is not necessarily the magnitudes of these shifts that matter; rather that they move in the opposite direction to resolving global imbalances. Graph 1 demonstrates these dynamics through the prism of the Swan diagram (Graph 1) in which the US and euro area were already some distance from their external equilibria in late 2017, albeit from different sides. ⁽³⁾ US tax reform and other expansionary shifts in fiscal policy are thus likely to result in both regions moving further away from their external equilibria.

Graph 1: Impact of tax cut (1% of GDP) on US and euro area equilibria



⁽¹⁾ Over the longer term, the US fiscal position also deteriorates as the reform is not revenue neutral, with the fiscal deficit increasing the 0.9% of GDP in the first year, before recovering marginally thereafter.

⁽²⁾ The simulation does not include potential effects from US tax incentives to repatriate profits.

⁽³⁾ This contrasts with the US already broadly at its internal equilibrium (i.e. has a closed output gap) a stage the euro area is expected to reach in 2018.