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## **WHY GREXIT CANNOT SAVE GREECE**

(BUT STAYING IN  
THE EURO AREA MIGHT)

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& Manos Matsaganis

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## **Why *Grexit* cannot save Greece (but staying in the Euro area might)**

Chrysafis H. Iordanoglou & Manos Matsaganis

### *Abstract*

*Grexit* was narrowly averted in summer 2015. Nevertheless, the view that Greece might be better off outside the Euro area has never really gone away. The paper examines the case for *Grexit* by offering a detailed account of its likely effects. Its structure is as follows. Section 2 analyses the transition, with the two currencies (old and new) coexisting. Section 3 charts the challenges facing the Greek economy in the short term, after the new national currency has become legal tender. Section 4 assesses prospects in the medium term, with *Grexit* complete and the new currency drastically devalued. Section 5 reviews the underlying weaknesses of Greece's growth regime and explains why these are unrelated to the nominal exchange rate. Section 6 discusses the conditions for an investment-led recovery and shows why tackling them would be more difficult outside the Euro area. Section 7 sums up and concludes.

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# Why *Grex* cannot save Greece (but staying in the Euro area might)<sup>1</sup>

## 1. Introduction

The 2010s have been dramatic for Greece – far more so than for any other European country. GDP declined by 26.3 percent in 2008-2013, then stagnated (+0.2 percent in 2013-2016)<sup>2</sup>. Living standards in Greece relative to the west European average, having risen to 85.3 percent on the eve of the Eurozone crisis in 2009, fell to 61.3 percent in 2016 (below their 1961 level)<sup>3</sup>. Employment, earnings and family incomes all plummeted, while unemployment and poverty soared. In all, the Greek crisis has few historical precedents: while it rivals the US Great Depression of 1929-1932 in terms of depth in its acute phase, it so far lacks the American economy's fast recovery under FDR's New Deal.

The political upheaval discredited the parties that ruled the country during the previous four decades, and led in January 2015 to the election of an anti-austerity coalition, whose ascendancy was confirmed in the snap general election of September 2015. The ensuing confrontation with the country's European partners, culminated with the government signing up to a third austerity programme in July 2015, just a week after the voters had rejected a version of it at a referendum. It was an explicit acknowledgement on the part of a government committed to ending austerity that a quick fix to the Greek crisis was not possible.

On the eve of the July 2015 referendum, the view that Greece might be better off outside the Euro area gained some ascendancy. Eminent economists urged Greeks to vote 'No' – on the

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<sup>2</sup> By comparison, Spain (-8.9 percent), Portugal (-7.8 percent) and Italy (-7.6 percent) all suffered a less painful recession in 2008-2013, and experienced a more substantial recovery in 2013-2016 (Spain: +8.3 percent; Portugal: +4.3 percent; Italy: +2.0 percent). See GDP and main components (output, expenditure and income) [nama\_10\_gdp]. Source: Eurostat (last update 20 December 2017).

<sup>3</sup> Portugal and Spain also lost ground in the early years of the Eurozone crisis, but have more recently narrowed the distance. See Gross domestic product at current market prices per head of population (HVGDP) in purchasing power standards, relative to the EU-15 average. Source: AMECO Eurostat (extracted 29 December 2017).

grounds that uncertainty and dwindling living standards were still preferable to ‘the policy regime of the past five years’ (Paul Krugman) or to the ‘unconscionable torture of the present’ (Joseph Stiglitz). In Europe, the main supporters of a ‘No’ vote were mostly of a different political persuasion. The xenophobic Right, led by France’s Marine Le Pen, Nigel Farage of the UKIP and Matteo Salvini of Italy’s *Lega Nord*, all came out in force, cheering the Greeks all the way to *Grexit*. Shortly after the referendum, and before the Greek government’s capitulation, Germany’s Wolfgang Schäuble circulated a non-paper floating the idea that “Greece should be offered swift negotiations on a time-out from the Eurozone, (...) over at least the next 5 years”.

Within Greece, opposition to the Euro remained a minority view. *Popular Unity* (a party founded by 25 MPs who left SYRIZA in protest at the new austerity programme, explicitly committed to *Grexit*) foundered at the September 2015 general election. According to the Eurobarometer survey<sup>4</sup> no more than 29 percent of the population were against the single currency.

Even though *Grexit* was narrowly averted in the summer of 2015, it has never really gone away. As late as February 2017, the ruling coalition seemed split between two alternative courses of action: either abide by the terms of the July 2015 agreement (i.e. reverse its long-held hostility to reforms, and accept a greater dose of austerity), or prepare for exiting the Euro area and returning to a national currency.

Beyond Greece, after Marine Le Pen’s bid for the French presidency was frustrated in May 2017, attention has shifted to Italy, where a disparate coalition, encompassing Beppe Grillo’s *Movimento Cinque Stelle* as well as Matteo Salvini’s *Lega Nord*, has called for a referendum on exiting the Euro. In view of that, our argument that *Grexit* cannot save Greece may be of some relevance to national debates elsewhere in Europe.

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<sup>4</sup> The corresponding proportion of those opposed to “a European economic and monetary union with a single currency, the Euro” was 37 percent in Italy, 25 percent in Spain, and 23 percent in Portugal. See Standard Eurobarometer 86, November 2016.

The paper draws on available evidence to offer a counterfactual account of the likely implications of *Grexit*. Its structure is as follows. Section 2 analyses the transition, with the two currencies (old and new) coexisting. Section 3 charts the challenges facing the Greek economy in the short term, after the new national currency has become legal tender. Section 4 assesses prospects in the medium term, with *Grexit* complete and the new currency drastically devalued. Section 5 reviews the underlying weaknesses of Greece's growth regime, and explains why these are unrelated to the nominal exchange rate. Section 6 discusses the conditions for an investment-led recovery, and shows why tackling them would be more difficult outside the Euro area. Section 7 sums up and concludes.

## 2. The transition

Between the moment of the decision to abandon the Euro and the establishment of the "New Drachma" as sole legal tender, there would inevitably be a period of transition. New banknotes have to be printed and new coins minted. This will take a few months and it is unlikely that it can happen in less than a month (introducing the Euro in physical form took about two years).<sup>5</sup> Until the New Drachma becomes physically available, both the Euro and some alternative means of payment would be circulating in parallel.

One can think of a number of solutions to the parallel currency issue. All of them would require a drastic intensification of the existing capital controls, to prevent a massive bank run that would empty all Euro-denominated deposits. Issuing government-backed IOUs<sup>6</sup> (i.e. promisory notes) would probably suffer from severe credibility problems, disrupting the existing payment systems and creating confusion as to which payments can be made with IOUs and which cannot.

Converting from the start most of the existing Euro accounts into Drachmas –presumably at parity- after a bank holiday of (one hopes) a few days, would be an alternative. Given that New Drachma banknotes and coins would not be yet available, payments from and to government (pensions, taxes etc.), utility bills, transactions involving larger businesses, and

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<sup>5</sup> Capital Economics with Bootle as the lead author, (2012) think six months would be more likely.

<sup>6</sup> IOU = "I owe you".

consumption purchases above a certain amount would all take place in Drachmas by non-cash means (bank transfers, card payments etc.). The rest of the (smaller) transactions would be still in Euros. In order to supply the ATM machines with Euros, a small portion of existing bank accounts would have to be retained in the 'old' currency.<sup>7</sup>

There would be snags with this solution. Converting Euro deposits into Drachmas without the consent of account holders, limiting access to cash, and paying part of wages and salaries in Drachmas, would provoke widespread civil unrest<sup>8</sup>. Second, technical problems to payment systems caused by the conversion into Drachmas would prolong the duration of the required bank holiday and possibly that of the transition period itself.<sup>9</sup> Third, during the transition Greece would be in effect without a functioning currency and virtually without cash. This would cause serious disruption. True, most business transactions are conducted by non-cash means, while the use of card payments for retail purchases increased after the imposition of capital controls.<sup>10</sup> Yet, Greece is still a cash economy. The bulk of consumer spending, especially involving purchases of below €20, is overwhelmingly done in cash.<sup>11</sup>

No matter which solution to the parallel currency were to be chosen, a number of developments are likely. On the one hand, Euro banknotes in the hands of households and firms would be used sparingly and only when necessary. The rest would be hoarded and disappear from circulation. By contrast, the velocity of circulation of electronic Drachmas or IOUs would soar, as everybody would try to get rid of them. On the other hand, people would be eager to make payments in electronic Drachmas or IOUs but would demand to receive payment in Euros. In such conditions, a dual price system would promptly arise. Payments in Euros would command a discount, those in the parallel currency a hefty mark-up. The dual price system cannot be expected to stabilize any time soon. There would be considerable volatility and the usual overshooting for prices expressed in Drachmas is likely, soon rendering the original Euro-to-Drachma conversion rate meaningless.

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<sup>7</sup> This, in a nutshell, is the solution proposed by Capital Economics (2012).

<sup>8</sup> As a key advisor to Finance Minister Varoufakis in 2015, and a proponent of the parallel currency, has admitted, in the event of *Grexist* the declaration of a state of emergency would be required (Galbraith 2016, p.190).

<sup>9</sup> IMF (2012, pp. 46-47), and Credit Suisse (2012, p. 2).

<sup>10</sup> ECB Payments Statistics (26 September 2016) and Bank of Greece Payments Statistics (online).

<sup>11</sup> See ECB (2011), Bagnall et al (2014). Neither of these studies refers directly to Greece, but cash usage in Greece almost certainly lies in the upper end of their findings.

The effects of the transition on banking would be crippling. First, a sizeable part of Greek banks' liquidity depends on funds from the ECB and the ELA.<sup>12</sup> The change in currency would terminally disrupt the respective flows. Second, the exposure of Greek banks to government debt, though smaller than in 2010, remains non-negligible.<sup>13</sup> The adoption of the Drachma would erode the banks' capital. Third, the already crippling weight of non-performing loans would certainly become bigger.<sup>14</sup> The public would stop servicing their debts in Euros. However, even repayments in electronic Drachmas would be uncertain. They might be deferred in the expectation that the value of the Drachma might decline further. Thus, credit would dry-up completely.

The impact of the transition on the real economy is also likely to be severe. Foreign trade would be a big casualty. Imports would freeze, as foreign exporters would require payment in hard currency, while Greek importers would be reluctant to part with their Euros. Widespread shortages would arise; rationing of fuel, medicines and essential foodstuffs might become necessary. Exports are unlikely to perform better. As most Greek exports of goods have a high import content, their production would be disrupted. According to the Federation of Greek Industries: "70 percent of Greek imports of goods represent inputs to production processes, while 25 percent of Greek imports are re-exported".<sup>15</sup> Furthermore, export receipts in hard currency would be largely kept abroad. Finally, shortages, limited access to cash, and civil unrest would be unlikely to make Greece an attractive tourist destination.

Output and employment are likely to decline further. Shortages of imported fuel, raw materials and foodstuffs would affect all economic activity, including basic services and tourism. Shortages would force many firms to cease production on a permanent or temporary basis. Others would scale down operations by adopting a short working week. Incomes and domestic demand would plummet. The credit squeeze would multiply the number of defaults,

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<sup>12</sup> According to Bank of Greece estimates (2016, p. 22), Greek commercial banks depended on Eurozone funding for 28 percent of their liabilities.

<sup>13</sup> In February 2017, Greek banks held in their asset portfolios €17.4bn in government loans, bonds and treasury bills. Source: Bank of Greece data.

<sup>14</sup> In September 2016, non-performing exposures (NPE) of banks accounted for 45.2 percent of total exposures. See Bank of Greece (2016, p. 193).

<sup>15</sup> *ΣΕΒ* (2017). OECD estimates put the import content of exports "at about 30 percent" (Nassar et al. 2016).



while many firms would delay payments of wages, taxes and suppliers' invoices. In short, the economy would freeze.

Clearly, the more prolonged the transition, the more catastrophic the consequences. Its duration might be shortened by prior secret preparations. But that would be risky. On the one hand, the inevitable leaks would cause more chaos. On the other, secrecy would reinforce the charge that the decision to abandon the Euro was a *coup d'état*.

### 3. The short term

At some point, the Drachma would be available in physical form as the sole legal tender in the land. At that early stage, Greece would lack the hard currency reserves<sup>16</sup> to support the new currency. Thus, the Drachma would be floated and devalued. Nobody knows how big the devaluation might be: guesstimates range from 20 to 85 percent.<sup>17</sup> Assuming a 50 percent devaluation, the Drachma cost of all imported goods would double. Both the cost of living and production costs would rise steeply as a result. Due to the heavy losses that the entire Greek business sector has suffered<sup>18</sup> in recent years, its capacity to absorb the higher cost of imported inputs is limited. For most Greek firms, passing those costs onto prices would be a matter of survival – and pass them on they would, in the confident expectation that their competitors would do the same. Thus, there is no question that the devaluation would have substantial inflationary implications of the stagflationary variety.

Estimates of the inflationary effect of devaluation vary.<sup>19</sup> An inflationary burst of 25 to 30 percent in year 1 would erode the real purchasing power of earnings by an amount comparable to their cumulative loss over the last 7 years. Price controls and rationing might be introduced, in which case cost-of-living increases would simply shift to the informal market. Thus, domestic demand would drop substantially.

Following devaluation, the non-convertible part of public debt would be unserviceable. Roughly 80 percent of Greece's total debt is held by the official sector: Eurozone governments, the EFSF, the ESM, the ECB and the IMF.<sup>20</sup> Part of the remainder has been issued to foreign private institutions under British law and cannot be re-denominated either. Only a small part

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<sup>16</sup> Bank of Greece reserves (excluding its contribution to ECB capital) currently amount to about €6.5bn.

<sup>17</sup> Capital Economics (2012, p. 52) expected a 40-50 percent fall in the Drachma's nominal exchange rate. Buiter and Rahbari (2012) thought the nominal devaluation would be between 50 and 70 percent. A National Bank of Greece study (2012) anticipated a 65 percent drop in the nominal exchange rate and a 40 percent decline in the real exchange rate. The IMF (2012) seemed to assume a 50 percent fall in the real exchange rate. Christodoulakis (2014) put devaluation at up to 50 percent. Galbraith (2016, p.149) thought a 'suitable depreciation' might be 30 percent. Lapavitsas and Flassbeck (2015, p. 35) expected the exchange rate to fall by 50 percent then stabilize at about 20 percent below the initial 1:1 conversion rate. See also Kazakos (2016, p. 112).

<sup>18</sup> See ICAP (various years).

<sup>19</sup> IMF (2012, p. 46): 35 percent; National Bank of Greece (2012, p. 6): 30-32 percent; BNP: over 40 percent; Citigroup: 16 percent. The latter two estimates are cited in NBG (2012).

<sup>20</sup> See Wall Street Journal "Greece's Debt Due" (last updated May 16, 2017).

of total debt is held domestically. Greece would have no option but to default on her European partners. The price of that would be exclusion from capital markets for the foreseeable future. In any case, debt cannot be wiped out just because a country refuses to service it: it would always be there, and sooner or later Greece would have to arrive at a settlement with her creditors.

A similar situation would arise with private debts Greek firms have taken on with foreign firms. Servicing debt in Euros out of revenues mostly in Drachmas would be difficult. Some of the firms involved would default and close down. Others would face litigation at home and abroad. The slow pace of the Greek justice system may keep them half-alive in Greece, but they would be seen as bankrupt abroad, unable to do business with the rest of the EU.

The fate of Greek banks would be of crucial importance. They would immediately lose access to funding afforded them by the Euro-system. Moreover, the re-denomination of their Greek public debt holdings into Drachmas would erode their capital (see above). Also, the liabilities of Greek banks to foreign residents (9 percent of total liabilities at the end of 2016) would be subject to a mismatch: the liabilities would be denominated in Euros, while their revenues and assets would be in Drachmas. In short, Greek commercial banks would be bankrupt. They would have to be recapitalized, and probably nationalized. If the latter, their policies would be determined by political rather than business criteria. In these conditions, the Bank of Greece would not remain independent, raising the question of whether it would be allowed to raise interest rates to a degree consistent with a credible anti-inflationary policy.

As regards the fiscal balance, Greece has now achieved a primary surplus. Following *Grexist*, it would turn into deficit. Tax revenues would fall due to the compression of real incomes, while social and other public expenditures would be bound to increase. Moreover, the time discrepancy between public spending and tax collection on the one hand, and the initial burst of inflation on the other hand, would erode the real value of tax receipts. The non-payment culture fanned by the current governing parties when in opposition, would be intensified. In

conditions of mounting budget shortfalls, the temptation to use the printing press would be strong.<sup>21</sup>

A lot would depend on whether the decline in domestic demand would be counterbalanced by export growth and import substitution, reasonably quickly after the initial shock. At present, both the current account and the trade deficits are small (0.6-0.8 percent of GDP).<sup>22</sup> A large devaluation would wipe these out and turn them into surpluses. At least initially, this would be the result of a further compression of imports. Domestic output and employment, however, depend on exports and import substitution. Some import substitution cannot be ruled out, but it is unlikely to be extensive in the short run. The Greek economy is dominated by non-tradables, while the productive base of tradable goods is heavily dependent on imported inputs.

That leaves exports. Again, in the short run no impressive results can be expected on that front either. Before the crisis, the export base of the Greek economy was the narrowest in the EU. During the crisis, in the context of large internal devaluation, unit labour costs decreased, so export prices fell (though later, and by less).<sup>23</sup>

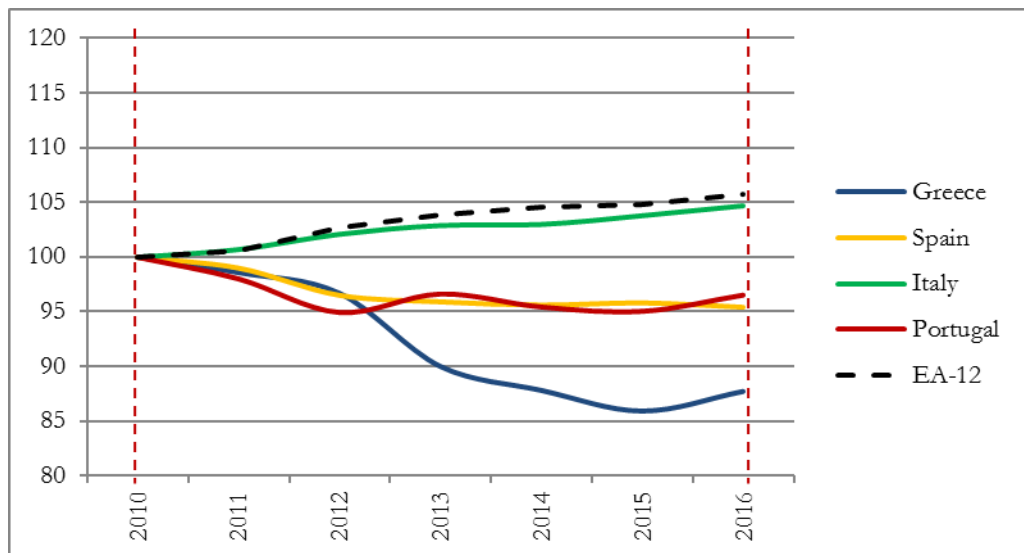
Figure 1a: Nominal unit labour costs (2010-2016)

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<sup>21</sup> The room for manoeuvre would be tighter if Greece decided to continue servicing some of its Euro denominated debts. The situation would be much worse if Greece were to lose all or part of EU subsidies.

<sup>22</sup> See Ameco (March 2017), and Bank of Greece (latest 2017).

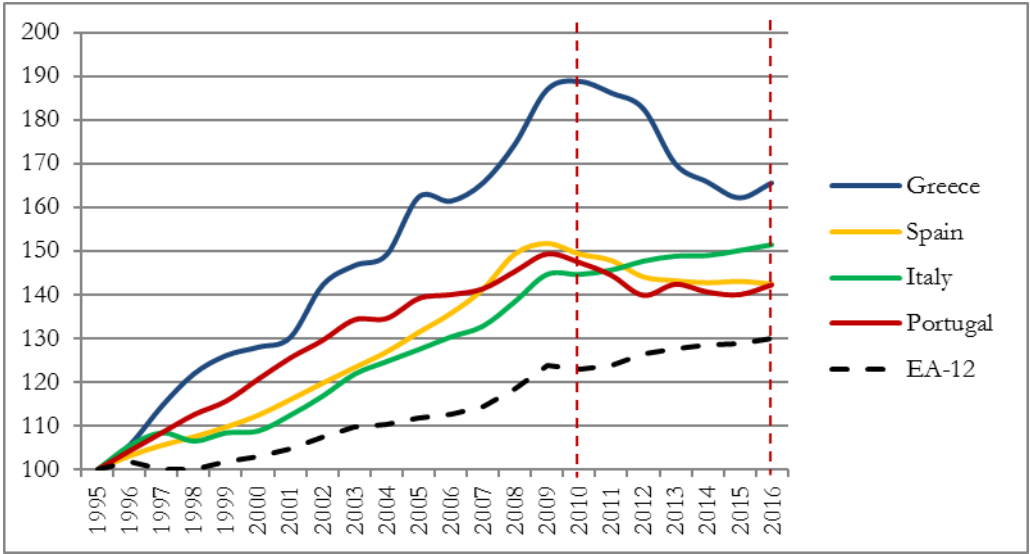
<sup>23</sup> In 2010-2016, Greek unit labour costs for the economy as a whole fell by 12.3 percent, while the EU-28 average increased by 6 percent. In manufacturing, unit labour costs fell by 27.8 percent in Greece (in 2010-2015), versus only 1.1 percent in the Euro area of 12 economies. The deflator for exports of goods indicates that Greek prices started to fall in 2013; the cumulative decline in 2010-2016 was 12 percent. In the EU-28, prices of exported goods increased by 1.5 percent. See Ameco (June 2017).



Note: Unit labour cost defined as the ratio of labour costs to labour productivity. Compensation of employees: all industries. Total employment: all industries, in persons (domestic concept). Index 2010=100.

Source: Eurostat data (tipslm20).

Figure 1b: Nominal unit labour costs (1995-2016)

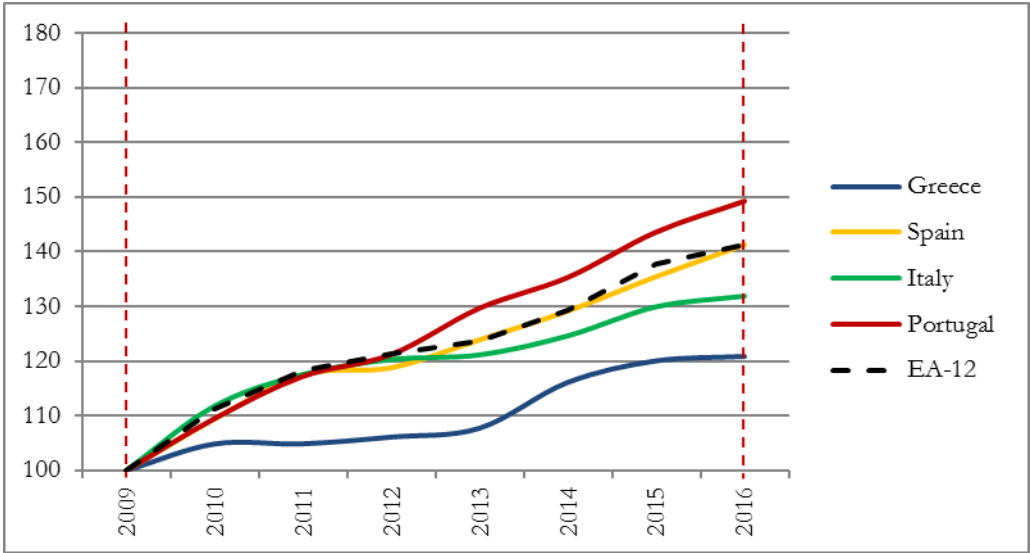


Note: Unit labour cost defined as the ratio of labour costs to labour productivity. Compensation of employees: all industries. Total employment: all industries, in persons (domestic concept). Index 1995=100.

Source: Eurostat data (tipslm20).

Yet, export growth was anaemic (the occasional false dawn notwithstanding).<sup>24</sup>

Figure 2a: Exports of goods and services (2009-2016)

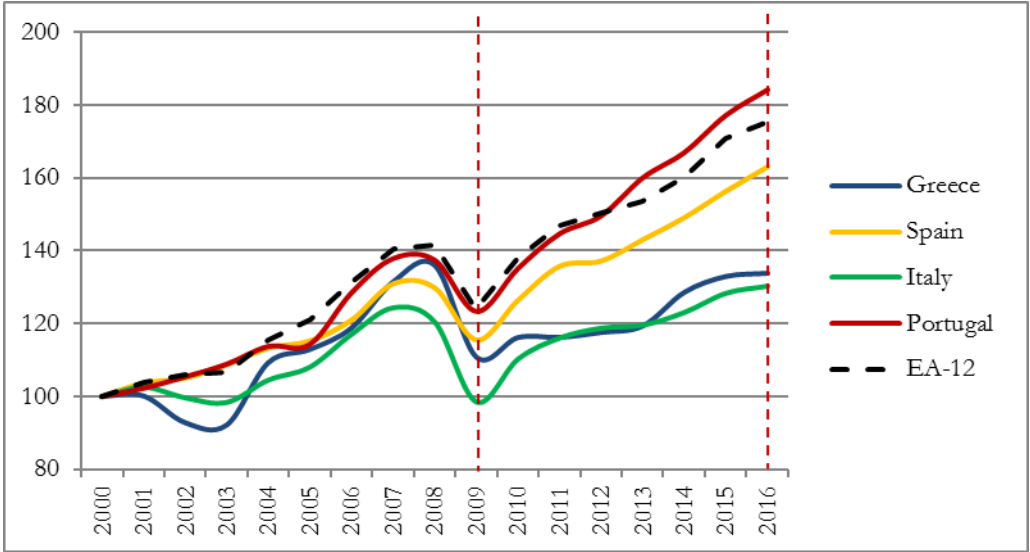


<sup>24</sup> In 2009-2016, the share of exports of *goods and services* to GDP was 27.5 percent on average. In 2000-2008, when GDP was higher, that share had been 21.6 percent. In particular, exports of *goods* are remarkably weak: 14.2 percent of the GDP in 2009-2016, relative to 9.3 percent in 2000-2008 – by far the lowest share in the EU-28. Note that because of decreasing receipts from shipping, exports of *services* were lower in 2016 than they had been in 2008. Calculations based on the Ameco data.

Note: Exports of goods and services, in billion euros, in constant prices. Index 2009=100.

Source: Ameco data (National accounts).

Figure 2b: Exports of goods and services (2000-2016)



Note: Exports of goods and services, in billion euros, in constant prices. Index 2000=100.

Source: Ameco data (National accounts).

The lacklustre performance of Greek exports, despite the fall in prices, point to a *structural* element behind the slow reflexes of the Greek growth model and its limited capacity to adapt.<sup>25</sup> If this is the case, a change in relative prices between imports and exports would not address structural problems, nor would it have immediate effect: export orientation is neither instantaneous nor costless. *Grexit* and devaluation would result in current account surplus but this would be due to the compression of imports, rather than a surge in exports, or extensive import substitution. As for the surplus, it would be unlikely to convince markets sufficiently to stabilize the Drachma.

To sum up: in the first, say, couple of years post-*Grexit* the contraction of domestic demand due to the fall in real incomes, the turmoil in the banking system and the supply of credit and the uncertainty as to which firm is solvent would weigh heavily on economic activity. On the other hand, export growth or import substitution would be unable to offset the loss of output and employment. The impact of these developments on GDP and employment would be

<sup>25</sup> For recent discussions of Greece’s export performance, see Böwer et al. (2014), Nassr et al. (2016), and Arkolakis et al. (2017).

severe. Again, the available estimates<sup>26</sup> vary from 13 to 22 percent - *on top of the 26 percent decline since 2008*. All of them imply an unemployment rate at 30 percent or more.

Losses would not be equitably distributed. In the short term after *Grexit*, real wages and pensions would fall due to the large increase in the cost of living. (What would happen later is anybody's guess; see discussion in the next section). Savers forced to convert their Euro deposits into Drachmas (typically those with modest savings, not in a position to keep accounts abroad) would also lose. Another set of losers would be businesses servicing their debts scrupulously. Winners from devaluation would be the insolvent debtors and holders of significant assets abroad. As Christodoulakis pointed out: "*Grexit* would be the reckless debtors' reward".<sup>27</sup> The damage due to the distortion of incentives would linger on for years.

#### **4. The medium term**

Most economists (including those favouring *Grexit*) probably agree that the first couple of years would be tortuous. Opinions diverge on the assessment of medium term effects. Those willing to contemplate *Grexit* pin their hopes on the ability of devaluation to engineer eventually the desired rebalancing of the economy in favour of tradables.

If devaluation is to succeed in the medium term, competitiveness gains must be sustained and built-upon. This depends on two vital preconditions: a) that the initial inflationary burst would be contained, a devaluation spiral prevented, and the exchange rate stabilized; and b) that low-priced Greek assets would attract sizeable foreign and domestic private investment. Let us consider them in turn.

On paper, it is feasible to devise a strategy combining measures of monetary, fiscal and incomes policies that would 'lock-in' the remaining beneficial effects of devaluation (after the initial inflationary burst), arrest the slide into further devaluation, secure the foreign exchange reserves needed for the stabilization of the currency, and make room for the transfer of

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<sup>26</sup> Estimates of real GDP contraction following *Grexit*: IMF (2012): 13 percent; National Bank of Greece (2012): 22 percent; BNP: 20 percent; Citigroup: 17 percent. The latter two figures cited in NBG (2012).

<sup>27</sup> Christodoulakis (2014, pp. 143-146).



resources towards investment and exports. Most economists (including those favouring *Grexist*<sup>28</sup>) would consider the early adoption of such a policy as the necessary condition for the medium term success of the whole operation. For instance, interest rates should be allowed to increase above inflation if necessary and the fiscal balance should be preserved in order to avoid the need for monetary financing of the deficit. Crucially, a protracted fall in real wages is a prerequisite. Without it, the devaluation would fail to achieve anything permanent. Finally, all this would have to be credible: the public should be convinced that the policy would be adhered to consistently.

The problem is that, on current form, Greece would be unable to implement such a programme. A devaluation of the scale anticipated would sharply raise the prices of imported goods, the cost of production and the cost of living. Historical precedent<sup>29</sup> and international experience<sup>30</sup> suggest that the slump would not avert inflation. The size of the price hikes would shatter money illusion on the part of workers, making the resulting decline in real wages just as unpalatable and politically costly as the nominal cuts under 'internal devaluation'. The most likely turn of events would be as follows: Public sector unions would demand from government salary increases compensating their members for inflation. Given their strength, their demands would probably be satisfied. Private employers in the business sector would be less accommodating, but they too would come under pressure to award significant pay rises. If they refused to do so, the already existing pay gap in favour of public sector workers would widen further to socially unacceptable levels. To overrule the reluctance of private sector employers, the unions and the Left would demand a statutory indexation policy, which would be widely seen as fair, and hence enjoy popular support. Sooner or later, the pressure would prove irresistible for governments of all colours.<sup>31</sup> Eventually, and despite the slump, pay rises

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<sup>28</sup> See for instance Capital Economics (2012, pp. 54-55).

<sup>29</sup> In Greece, in 1944, in a ruined land with hundreds of thousands of destitute unemployed, a wage-price spiral, driven by prices in that particular case, caused the failure of four devaluations (in 1944, 1945, 1946, 1949), and of the effective devaluation of 1948, to stabilize the currency. See Eliades (1954).

<sup>30</sup> In Argentina, GDP declined by about 20 percent in 1998-2002, while unemployment averaged 21 percent in 2002 (having peaked at 25 percent). Yet, after a 75 percent devaluation in 2002, price (and wage) inflation in the same year peaked at 41 percent, averaging 26 percent. See IMF (2004, p.24).

<sup>31</sup> From the restoration of democracy in 1974 to 1990, Greece went through a period of slow growth and high inflation. During that period, the focus of unions was on real wages; nominal wages rose faster than both prices and productivity under conservative as well as socialist governments. In 1982, the socialist government imposed a statutory wage indexation policy that prevailed (with a two-year interruption) until 1991. See Iordanoglou (2003).

would spill over throughout the economy generating a wage-price spiral. Pay rises and new public sector jobs, as well as pension increases, would lead to higher fiscal deficits that can be financed only by printing money. The newly nationalized banks would not be allowed to contain inflationary pressures. In such an environment, Greece would be unable to stabilise the Drachma, which would descend to an inflationary cycle with no end in sight.

Turning to the second precondition: in the conditions likely to prevail after *Grexit*, the low price of Greek assets would only attract the most risk loving of investors. Low asset prices would generally be outweighed by uncertainty over exchange rates and rising costs and prices. The incentive to invest would be stifled by political instability and, possibly, law and order issues. To these one should add the perennial disincentives (bureaucratic obstacles and hostile attitude to private investment at all levels of government) that led to low rates of foreign direct investment in the past. Most foreign corporations would avoid the minefield. Greek businesses with capital parked abroad would have every reason to wait until the situation cleared up.

Our conclusion is that *Grexit* would be a disastrous mistake that should be ruled out decisively. The first couple of years would be worse than anything experienced under extreme austerity.<sup>32</sup> Medium term benefits would at best be uncertain, dependent on a miraculous transformation of Greek society and politics. As for the economy, it would face the risk of disintegration.

It is therefore hardly surprising that economists better acquainted with Greece are adamantly opposed to *Grexit*. Buitter and Rahbari (2010) put the argument succinctly: “The key rigidities in economies like Greece are real rigidities, not Keynesian nominal rigidities. (...) Unless the balance of economic and political power is changed fundamentally, a depreciation of the nominal exchange rate would soon lead to adjustments of domestic costs and prices that would restore the old uncompetitive real equilibrium”.

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<sup>32</sup> Throughout the paper we have implicitly assumed that aid of some sort from the EU would be available. Without it, the effects of *Grexit* would be worse. If assistance were generous, it would alleviate the effects of developments described above, without altering them significantly. In any case, assistance would not be unconditional. Indeed, in many ways Greece would be more dependent on EU aid than at present, as she would be facing problems that are more urgent and “existential” in nature.

## 5. Structural and institutional blockages

The immediate cause of the Greek depression since 2010 was no doubt the fall in domestic demand. However, the underlying problem was the weakness of Greece's growth regime and the structural and institutional blockages underpinning it. For almost two decades before the crisis, Greece enjoyed a certain prosperity, spread unequally but widely. A broad coalition of political, social and economic actors coalesced in support of that growth model<sup>33</sup>: business interests lobbying politicians for access to public contracts; labour unions in state-owned enterprises<sup>34</sup>; middle-class professionals accustomed to evading taxes<sup>35</sup>. The most important of those blockages are briefly reviewed below.

### *Weak structural competitiveness*

Greek exports of goods and services as a share of GDP is (and was) well below the EU-28 average, while Greek exports of goods alone are by far the lowest among all EU countries. Furthermore, most Greek exports involve low income-elasticity products, mostly of indifferent quality, and of rather low technological content<sup>36</sup>. These competitive disadvantages stem from structural and institutional factors, including product market rigidities and small firm size.

### *Product market rigidities*

On entering the EU, Greece opened up its exposed sectors to foreign competition but increased the protection of sheltered sectors. As a result, the latter flourished while the former withered<sup>37</sup>. Product market rigidities are endemic in non-tradeable industries (mostly

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<sup>33</sup> As Pontusson and Baccaro (2016, p. 200) have put it, "growth models rest on and are supported by clearly identifiable 'social blocs', that is, coalitions of social forces, typically straddling the class divide, that can legitimately claim to represent the 'national interest'". See also Hall (2018).

<sup>34</sup> For a detailed exposition of the skewed representation of workers by unions, and how this distorted union policy on the all-important issue of pension reform in the 2000s, see Matsaganis (2007).

<sup>35</sup> For an analysis of how interest groups, far from being the servants of political parties, as the standard view had it, eventually became their masters, distorting decision making and preventing policy adjustment, see Iordanoglou (2013).

<sup>36</sup> See Kastelli and Zografakis (2017).

<sup>37</sup> See Doxiadis (2013) for an account of the shift in attention on the part of Greek policy makers away from exposed firms and industries producing tradeable goods towards the sheltered non-tradeables sector.

services), where incumbents benefit from barriers to entry, administratively set prices, fees or profit margins, protected public monopolies. In contrast, firms producing tradeable goods – being open to competition – have nowhere to hide. They face artificially high production costs (from inflated energy bills to pay awards tailored to conditions in non-tradeable industries), as well as those arising from compliance to regulations (or, more generally, from dealing with state agencies). Such costs squeeze the profit margins of firms producing tradeable goods, and dilute the incentives of prospective entrepreneurs to enter the respective industries.

Structural reform as practised in Greece under the terms of the austerity programmes provided a (at best) partial response to the problem. Product market liberalization, although potentially more promising than labour market deregulation<sup>38</sup>, was pursued with less determination, failing to break the stranglehold of business interests over large parts of the Greek economy<sup>39</sup>.

### *Small firm size*

Optimum firm size varies across industries. Therefore, the size distribution will depend on the composition of a country's manufacturing sector. Nevertheless, the *persistent* preponderance of very small firms in Greece goes beyond composition effects. The average size of Greek firms in terms of number of employees is the smallest in the EU: 3.2 employees in 2014. Micro-firms employing up to nine workers represented 95 percent of all Greek manufacturing firms but

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<sup>38</sup> Barnes et al. (2011) have estimated that moving to the OECD average in terms of labour market regulation could raise real GDP per person in Greece by 6 percent, while a similar move in terms of product market regulation could add as much as 22 percent. As argued in a recent IMF report (2016, p.121): "Product market reforms should be implemented forcefully, as they boost output even under weak macroeconomic conditions. In contrast, lowering unemployment benefits and easing job protection should be accompanied by other policies to offset their short-term cost; alternatively, they might even be grandfathered or be enacted with their implementation deferred until a (suitably defined) better time arrives."

<sup>39</sup> On the trials and tribulations of attempts to reform product markets in Greece, see Katsoulakos et al. (2017). As argued by Ioannides and Pissarides (2015): "Labor market reforms have been given greater priority in Greece than product market reforms, mistakenly in our view. Whether this was because successive Greek governments found it easier to reform labor markets than product markets or because the troika insisted on them is a moot point" (p. 364).

accounted for 42 percent of the sector's employment and 24 percent of its value added.<sup>40</sup> At the other end of the spectrum, larger firms (those employing over 250 persons) represented a miniscule proportion of all firms in manufacturing (0.2 percent), but accounted for 21 percent of the sector's employment and 37 percent of its value added. These shares are too low by European standards: only in Italy and Portugal did larger firms account for such low proportions of manufacturing employment and value added. Labour productivity in firms employing more than 250 workers was three times as large as labour productivity in those employing up to nine workers.<sup>41</sup>

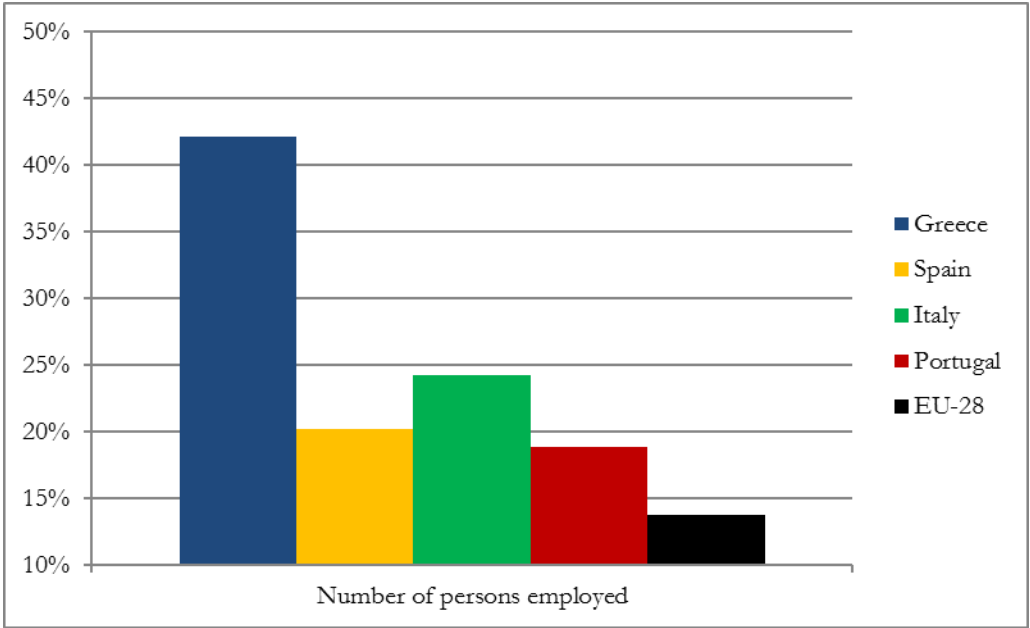
The disadvantages of small firm size are well documented. Very small firms miss the advantages of scale. Apart from poor labour productivity, firms employing less than 10 workers lack the resources or the vision to sell in markets outside their locality, and are likely to have a limited capacity for technological sophistication.

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<sup>40</sup> For a recent analysis of small (and micro) enterprises in Greece, and a discussion of how they might “unleash their export potential”, see Nassr et al. (2016). According to OECD estimates cited in that paper, micro enterprises accounted for 3.8 percent of total exports in 2012.

<sup>41</sup> See Eurostat, Structural Business Statistics.

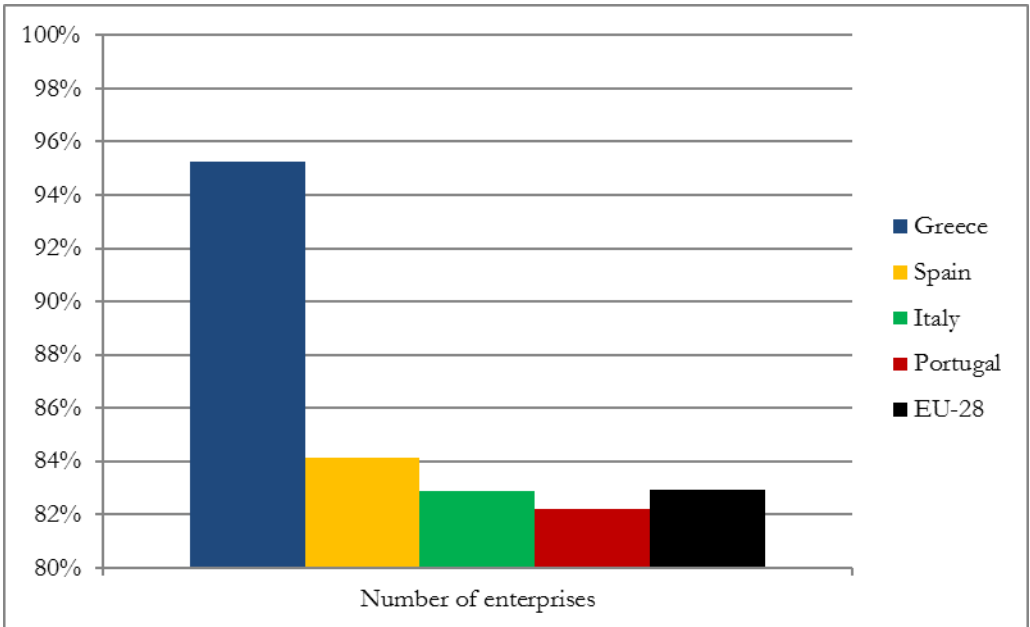
Figure 3a: Employment share of small firms in manufacture (2014)



Note: Number of workers in manufacturing firms with fewer than 10 employees as a proportion of all manufacturing employment.

Source: Eurostat data (sbs\_sc\_sca\_r2).

Figure 3b: Small firms as a share of all firms in manufacture (2014)



Note: Number of manufacturing firms with fewer than 10 employees as a proportion of all manufacturing firms.

Source: Eurostat data (sbs\_sc\_sca\_r2).

What are the advantages? Tax and labour legislation is favourable to small firms. Moreover, small firms find it easier to avoid paying taxes and social security contributions and to circumvent labour regulations (about minimum wages, paid vacations, work schedules). Indeed, it has been argued that such advantages provide powerful disincentives for firms to grow.<sup>42</sup> In contrast, bigger firms are at the receiving end of high social security contributions and strict labour market regulations.

Structurally low competitiveness stemming from product market rigidities and small firm size cannot be fixed by changing the nominal exchange rate, and will have to be dealt with no matter what currency Greece will be using.

### *Low and falling savings*

Savings in Greece are too low to secure an adequate level of investment funded by domestic resources. This is not only because of long periods of negative public savings. Private savings too represent a low and falling percentage of GDP. The fall in private savings is not exclusively cyclical. It is in part a trend going back some time.

A large devaluation and the consequent substantial decline in the real value of savings is certainly not the ideal way to steer savers' behaviour in the desired direction, while Greece's exclusion from the outside world would restrict the country's ability to mount a sizeable investment effort.

### *Pensions and welfare*

In spite of fast rising social spending in the 1990s and the 2000s, the configuration of Greece's social protection system was so dysfunctional that it rendered it particularly unfit for the looming challenge<sup>43</sup>. When the crisis hit, there was little to prevent the hundreds of thousands of families suffering losses in terms of jobs and/or earnings from falling into poverty.<sup>44</sup>

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<sup>42</sup> Burtless (2001). See also Doxiadis (2013).

<sup>43</sup> See Matsaganis (2011).

<sup>44</sup> See Matsaganis (2014).

Social spending peaked in 2009 in absolute terms, though in relative terms it continued to grow until 2012. Thereafter, as the cuts took effect, expenditure on social protection fell faster than GDP. Not all policy areas fared equally. Pension expenditure has continued its upward trend to over 18 percent of GDP, as the effect of rising numbers of pensioners more than offset that of nominal benefit cuts (which were certainly non-negligible). More than had hitherto been the case, the growth in pensions spending *crowded out other components of Greek welfare*.

Greek pensions have always been fragmented, inequitable and unsustainable<sup>45</sup>. State subsidies to pension funds were the single most important factor behind the build-up of public debt. The 2010-2016 reforms have slowed the growth of government subsidies to the pensions system, but have not reduced their share in GDP. In 2015, such subsidies exceeded 10 percent of GDP, compared to 2.5 percent in the Euro area as a whole.<sup>46</sup>

Given the large numbers and low age of Greek pensioners<sup>47</sup>, the pensions system is bound to be more unaffordable in the medium term even if the employment outlook improves substantially. Devaluation would not alter the nature of the problem. It would reappear in the shape of a dilemma: inflate away the burden of state subsidies to the pensions system (thus imposing bigger real income losses on pensioners than those already incurred), or compensate them for inflation and perpetuate pension deficits? Our guess is that the Greek political system would try to do the latter and end up doing the former.

#### *Narrow tax base and poor tax administration*

Before the crisis, the Greek tax system suffered from extensive tax evasion and avoidance (due to widespread exemptions), while the tax base was narrow. The quality of tax administration was poor, antiquated and subject to political interference. In spite of recent reforms, tax

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<sup>45</sup> See Tinios (2005), Featherstone (2005) and Matsaganis (2007).

<sup>46</sup> OECD (2016, p. 33) and IMF (2017, p. 8).

<sup>47</sup> In 2016, the number of pensioners had grown to 2.7 million as the number of workers had shrunk to 3.6 million. In the meantime, retiring at a tender age continued to be relatively easy: 25 percent of all new retirees in spring 2015 were aged below 55 (in the public sector the figure was 34 percent).



evasion is as rife as ever, tax collection rates low and tax arrears at a record high. Economic hardship has been a key factor to those developments – but high tax rates, punitive fines, poor tax administration, and inefficiencies in justice<sup>48</sup> have all played a role. Constantly shifting rules have exacerbated uncertainty.

Yet, beneath the surface lie important improvements. When (if) the economy rebounds, tax rates can be allowed to fall. In the meantime, the Greek tax system has become more balanced: VAT exemptions have been eliminated; a wider personal income tax base has been legislated; the relative weight of property taxes has been raised from the previous negligible level; and tax administration has become more competent and more autonomous from political interference. None of these would have happened without outside pressure (in this case, from the EU-ECB-IMF Troika), nor can recent gains be sustained in the event of Greece breaking loose from the Euro area (or, possibly, the EU).

#### *Inefficiency of public administration*

Most public agencies operate under no real incentive structure, no clearly defined tasks, and no evaluation of their performance. As a result, they are (with some exceptions) unable to carry out tasks on time and within budget. Often they act as hindrance to, not facilitator of, economic activity. Bureaucratic obstacles are top concerns of domestic and foreign businesses. These issues are well known and well documented: no reason to dwell further upon them.<sup>49</sup>

Nevertheless, one issue deserves attention: the gap in pay and conditions separating public from private sector workers. Even accounting for skills and experience, civil servants and other public sector employees earn significantly more than their counterparts in private firms.<sup>50</sup> Only at the top are earnings higher among private sector workers. Wage differentials widened during the crisis: workers in private firms suffered greater wage cuts as well as more job

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<sup>48</sup> With respect to the enforcement of contracts, the World Bank ranked the Greek judicial system 133<sup>rd</sup> out of 190 countries in its most recent *Doing Business* report. See also IMF (2017, p. 21).

<sup>49</sup> See various editions of the World Economic Forum's *Global Competitiveness Report*, and the World Bank's *Doing Business* reports. See also OECD (2016, p. 81).

<sup>50</sup> See Papapetrou (2003), Christopoulou & Monastiriotis (2013).

losses.<sup>51</sup> Moreover, in spite of recent labour market reforms, public sector employees still enjoy better benefits, easier working conditions, and far greater job security.<sup>52</sup> This represents a massive distortion of the structure of incentives facing entrants to the labour market. Given the chance, most young Greeks would opt for a public sector job rather than employ their abilities more productively elsewhere. This obviously plays out at the expense of the exposed sectors of the economy.

None of the enduring structural and institutional blockages reviewed above would be addressed by changing the nominal exchange rate. The argument that devaluation would alter the balance of advantage in favour of tradables presupposes that the advantage it would give Greek firms would be sustained. We argue that devaluation is far more likely to generate a wage-price spiral that would wipe out competitive gains. Furthermore, departure from the Euro area (if the past is any guide) is likely to eliminate the pressure for reform, and leave Greece more insulated than ever.

## **6. Recovery within the Euro area**

The adjustment programmes imposed on Greece suggest that the country's lenders were aware of structural blockages. However, they demanded simultaneous progress on all fronts. They offered no sense of priorities and no clear sequencing of the necessary changes. They envisaged a big bang: the rapid transformation of Greek economy and society almost overnight.

Furthermore, the focus on reducing labour costs deflected attention from the full range of factors that stymied productivity growth, and caused Greek firms to lose ground in international markets. The labour market reforms adopted are best suited to a growth regime based on lower wages and lower skills. This is contentious on social and political grounds, and questionable on economic grounds. Yet, no Greek government advocated an alternative strategy, aiming for a higher-skill higher-wage equilibrium. Instead, domestic actors passively resisted those changes that were most disruptive to the *status quo*, as if it were possible

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<sup>51</sup> See Christopoulou & Monastiriotis (2016).

<sup>52</sup> See Matsaganis (2018).

somehow to resurrect the previous growth regime (whose failure had led to the crisis in the first place).

Greece urgently needs recovery but has a limited capacity for reform. The problem is how to weave the expansionary stimulus needed for economic recovery now, into the medium term reform effort aiming to address the blockages discussed above. On that score, Dani Rodrik's<sup>53</sup> advice seems sound. Higher priority ought to be given to a limited set of objectives. Ambitious reforms (such as the general overhaul of the public sector) are not to be abandoned, but introduced at a more gradual pace, and allowed greater latitude.

Where the necessary demand stimulus is going to come from? It cannot come from a burst of consumption financed by increased public spending. Greece would be unable to adopt an expansionary fiscal policy in the foreseeable future. Even if that were possible, it would be inadvisable: it would soon put pressure on the balance of trade, while doing nothing to tackle issues on the supply side.

What remains is investment-led stimulus. In 2007-2015, gross fixed capital formation fell by 66 percent in volume terms<sup>54</sup>. There is plenty of scope for higher investment. Given fiscal constraints, public investment can only play a limited role. Also, since private savings have fallen to their lowest level for decades, an adequate investment effort cannot be financed out of domestic resources alone: foreign funding is indispensable. True, an increase in investment will cause a deterioration of the country's current account. But investment (unlike consumption) creates the conditions that those obligations will be met in the future through increased production and exports.

It is therefore essential that targeted reforms specifically related to the success of an investment-led strategy be given priority. Privatizing poorly managed public assets in transport, energy, tourism and real estate will attract foreign investment. Clearing up the backlog of non-performing bank loans<sup>55</sup> will pave the way to easing the credit crunch. Cutting

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<sup>53</sup> See Rodrik (2016).

<sup>54</sup> See GDP and main components (output, expenditure and income) [nama\_10\_gdp]. Source: Eurostat (last update 20 December 2017).

<sup>55</sup> In 2016, non-performing loans represented 45 percent of banks' total exposure.

red tape will remove a key obstacle to job creation and business growth. Reducing the burden of taxes and social security contributions, and making tax rules more stable, will also have a positive effect. Simplifying legislation and streamlining the judicial process will create a less arbitrary and more effective institutional environment.

Some of the above reforms have already been signed up to by successive Greek governments (including the current one), but have stalled. This suggests that they are highly unlikely to happen without external pressure, for instance if Greece were to exit the Euro area – or, worse, leave the EU.

Restructuring the public debt – number one priority of the present Greek government – would be of great help, as it would reduce uncertainty about debt sustainability, improve liquidity, and make international financial institutions less unwilling to fund investment in Greece. However, on its own, without sweeping reforms to facilitate an investment-led strategy for growth, debt restructuring would be insufficient to kick-start the economy.

In the absence of both investment revival and debt restructuring, Greece will be condemned to many years of low growth. To avert this, reforms to facilitate an investment-led strategy are needed. But low growth is still more manageable than the perfect storm that would follow in the event of Greece's exit from the Euro area.

## **7. Conclusions**

This paper argues that *Grexit* would be likely to bring lots of pain for no gain. The first couple of years would be excruciating. Economic stabilization in the medium term would require a restrictive policy stance to preserve some of the competitiveness gains from devaluation and prevent the perpetuation of an inflationary spiral. Would Greece be able credibly to pursue such an agenda? Highly unlikely. Political and media elites would fail to support it, while influential interest groups would resist it. If Greece had the ability to carry out a stabilization effort of such magnitude, she would not have been in the position she is now. In this context, the risk of a complete disintegration of the economy would be unacceptably high.

The fundamental blockages of the Greek economy are structural and institutional in nature. Adopting another currency would address none of them; investment-centred reforms might. Would reforms be more likely to be adopted post-*Grexit*? Once again, the answer can only be an emphatic ‘no’. The *vincolo esterno*<sup>56</sup> remains indispensable. In the past 30 years the important shifts in policy and the major reforms (such as the stabilisation policy of the 90’s and the reforms of the banking and telecommunications sectors) came about because of the EU influence. Leaving the Euro area (or, worse, the EU) would take the wind out of reformers’ sails, and condemn the country to insularity and decline.

*Grexit* advocates (e.g. Lapavitsas and Flassbeck, 2015) have obviously presented more optimistic accounts. While they do not deny the hardship of the immediate aftermath of Greece’s exit from the Euro area, they pin their hopes on an unprecedented export recovery and extensive import substitution that will more than compensate for the slump. We explain in the paper why – on the basis of recent experience – we believe that such outcomes are unlikely to materialize. However, we do acknowledge the difficulty, inherent to all counterfactual disputes, of settling the question either way. This does not negate the policy implications of our paper. The post-*Grexit* scenario we have sketched here is so catastrophic that sensible political leaders should keep well clear of it, even if they actually thought we are too pessimistic. A non-trivial probability that events might play out as we describe in this paper should be a sufficient deterrent.

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<sup>56</sup> For an early use of the term, see Dyson and Featherstone (1996) on how the concerted effort to join EMU strengthened the hand of Italian reformists.

## References

Arkolakis C., Doxiadis A. and Galenianos M. (2017) The challenge of trade adjustment in Greece. In: Meghir C., Pissarides C., Vayanos D. and Vettas N. (eds) Crisis in the Eurozone: policy options for Greece. MIT Press, Cambridge (MA).

Bagnall J. et al. (2014) Consumer cash usage: a cross-country comparison. Working Paper Series, No. 1685. European Central Bank, Frankfurt.

Bank of Greece (various years) Governor's Annual Report.

Bank of Greece (various years) Payments Statistics.

Barnes S., Bouis R., Briard P., Dougherty S. and Eris M. (2011) The GDP impact of reform: a simple simulation framework. Economics Department Working Paper No. 834. Organisation for Economic Co-operation and Development, Paris.

Bootle R. (2012) Leaving the Euro: a practical guide. Capital Economics, London.

Böwer U., Michou V. and Ungerer C. (2014) The puzzle of the missing Greek exports. Economic Papers 518. Directorate-General for Economic and Financial Affairs, European Commission, Brussels.

Buiter W. H. and Rahbari E. (2010) Greece and the fiscal crisis in the EMU. Citigroup Research.

Buiter W. H. and Rahbari E. (2012) Rising risks of Greek Euro area exit. Citigroup Research.

Burtless G. (2001) The Greek labor market. In Bryant R., Garganas N. and Tavlas G. (eds) Greece's Economic Performance and Prospects. Bank of Greece and The Brookings Institution.

Christodoulakis N. (2014) Euro or Drachma. Gutenberg, Athens (in Greek).

Christopoulou R. and Monastiriotis V. (2013) The Greek public sector wage premium before the crisis: size, selection and relative valuation of characteristics. *British Journal of Industrial Relations* 52 (3) 579-602.

Christopoulou R. and Monastiriotis V. (2016) Public-private wage duality during the Greek crisis, *Oxford Economic Papers* 68 (1) 174-196.

Credit Suisse (2012) Greek elections – in or out of the Eurozone? *Global Economics, Research Weekly* (11 May). Zurich.

Doxiadis A (2013) *The Invisible fault line: institutions and attitudes in the Greek economy*. Icarus, Athens (in Greek).

Dyson K. & Featherstone K. (1996) Italy and the “vincolo esterno”: empowering the technocrats, transforming the state. *South European Society and Politics* 1 (2) 272-299.

ECB (2011) The use of Euro banknotes: results of two surveys among households and firms. *Monthly Bulletin* (April). European Central Bank, Frankfurt.

ECB (2016) *Payments Statistics* (26 September). European Central Bank, Frankfurt.

Eliades E.A. (2012) Stabilization of the Greek economy and the 1953 devaluation of the Drachma. *IMF Staff Papers* 4 (1) 22-72. International Monetary Fund, Washington DC.

Featherstone K. (2005) ‘Soft’ coordination meets ‘hard’ politics: the European Union and pension reform in Greece. *Journal of European Public Policy* 12 (4) 733-750.

Galbraith J.K. (2016) *Welcome to the poisoned chalice: the destruction of Greece and the future of Europe*. Yale University Press.

Hall P.A. (2018) Varieties of capitalism in light of the Euro crisis. *Journal of European Public Policy* 25 (1) 7-30.

ICAP (various years) Greece in figures. Athens.

IMF (2004) Argentina: Second review under the stand-by arrangement and requests for modification and waiver of performance criteria. Country Report No. 04/195 (July). International Monetary Fund, Washington DC.

IMF (2012) Greece: Request for extended arrangement under the extended fund facility. Country Report No. 12/57 (March). International Monetary Fund, Washington DC.

IMF (2016) World Economic Outlook: too slow for too long (April). International Monetary Fund, Washington DC.

IMF (2017) Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Greece. Country Report No. 17/40 (February). International Monetary Fund, Washington DC.

Ioannides Y.M. and Pissarides C.A. (2015) Is the Greek debt crisis one of supply or demand? Brookings Papers on Economic Activity 349-373.

Iordanoglou C.H. (2003) The Greek economy, 1974-2000: slow-down, stagnation, recovery. In Panagiotopoulos V. (ed) History of New Hellenism, 1770-2000 (vol. 10, pp. 65-100). Greek Letters, Athens (in Greek).

Iordanoglou C.H. (2013) State and interest groups. Polis, Athens (in Greek).

Kastelli I. and Zografakis S. (2017) Industrial competitiveness and the search for a sustainable path out of the crisis: lessons from the Greek experience. In: Hanappi H., Katsikides S. & Scholz-Wäckerle M. (eds) Evolutionary political economy in action. Routledge, Oxford.

Katsoulakos Y. Genakos C. and Houpis G. (2017) Product market regulation and competitiveness: towards a national competition and competitiveness policy for Greece. In:



Meghir C., Pissarides C., Vayanos D. & Vettas N. (eds) Crisis in the Eurozone: policy options for Greece. MIT Press, Cambridge (MA).

Kazakos P. (2016) The Drachma will not be a solution. Epikentro, Thessaloniki (in Greek).

Lapavitsas C. and Flassbeck H. (2015) Program for social and national rescue for Greece. The Press Project.

Matsaganis M. (2007) Union structures and pension outcomes in Greece. *British Journal of Industrial Relations* 45 (3) 537–555.

Matsaganis M. (2011) The welfare state and the crisis: the case of Greece. *Journal of European Social Policy* 21 (5) 501-512.

Matsaganis M. and Leventi C. (2014) Poverty and inequality during the Great Recession in Greece. *Political Studies Review* 12 (2) 209-223.

Matsaganis M. (2018) Income support policies and labour market reform under austerity in Greece. In: Theodoropoulou S. (ed) *Labour market policies in the era of pervasive austerity: a European perspective*. Policy Press, Bristol.

Nassr I., Robano V. and Wehinger G. (2016) Unleashing the export potential of SMEs in Greece. Working Papers on Finance, Insurance and Private Pensions No. 41. Organisation for Economic Co-operation and Development, Paris.

NBG (2012) Outline of a crucial dilemma. Special Edition (May). Athens, National Bank of Greece.

OECD (2016) *Economic Surveys: Greece*. Organisation for Economic Co-operation and Development, Paris.

OECD (2017) Taxing wages: Greece. Organisation for Economic Co-operation and Development, Paris.

Papapetrou E. (2003) Wage differentials between the public and the private sectors in Greece. Economic Bulletin 21. Athens, Bank of Greece.

Pontusson J. and Baccaro L. (2016) Rethinking comparative political economy: the growth model perspective. Politics & Society 44 (2) 175-207.

Rodrik D. (2016) The elusive promise of structural reform: the trillion-euro misunderstanding. Milken Institute Review 18 (2) 26-35.

Tinios P. (2005) Pension reform in Greece: 'reform by instalments', a blocked process. West European Politics 28 (2) 402-419.

World Bank (various years) Doing Business. Washington DC.

World Economic Forum (various years) Global competitiveness report.

ΣΕΒ (2017) Weekly Bulletin for the Greek Economy 83 (17 February). Athens, Federation of Greek Industries (in Greek).