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Conditions of Wage-led Growth

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1 Introduction

Traditionally policy for economic growth and policy for redistribution of wealth had been deemed as antonyms of each other. However with growing inequality in the contemporary world some had theorized that inequality can act as a deterrence to growth[1]. One idea that is currently gaining a lot of momentum in political discourse is the theory of wage-led growth[2] led primarily by the post-Keynesian and the post-Kaleckian economists. The term wage-led growth was coined during the recovery of 2008 financial crisis as an alternative paradigm to traditional supply-led growth. As a derivative of Keynesian demand-led growth, the theory focuses on higher marginal propensity to consume from people of lower income bracket. It suggests increasing the real wages in the hands of the lower income households and laborers can lead to increase in consumption and therefore increase in aggregate demand.

Since its emergence wage-led growth theory faced heated arguments among many followers and opponents. Most active examples of the former are Stockhammer and Onaran. Works of these economists critically reviewed neoclassical economic policies and relation of labor income and economic growth. Stockhammer examined the theory behind the deregulation of European labor market during 1980s and early 1990s[3] and pointed out that neoclassical models failed to predict the growth and unemployment rate than the actual outcomes. Onaran investigated the relationship between economic growth and growth of

[1] Cigano (2014), Ostry (2014)

[2] Lavoie (2013)

[3] Stockhammer (2012)

labor income as a share of GDP[4] and argued that consistent growth of labor income is a driving factor in economic growth. These analysis provided political imperative for different policies and grounds for further academic research. On the other hand, the voice against wage-led growth did not take a form of independent academic research until recently. Since the concept of wage-led growth is relatively new and radically different from traditional theory of growth, most of the researchers who investigate the topic tends to be on the affirmative side. A new critique on the theory of wage-led growth came as outcomes of wage-led growth policies accumulated. Skott and Pyo showed detailed analysis of the challenges of wage-led growth model. Skott argues that division of profit-led growth and wage-led growth is not helpful as two are not mutually exclusive[5]. Pyo points out that wage-led growth fails to draw adequate link between increase in wage share and innovation, thus fail to provide grounds for a sustainable growth in long term[6].

While both sides have their respective merits, the scope of these arguments made are rather broad. Discourse on wage-led growth focused heavily on general application that it fails to suggest some conditions when wage-led growth may be advantageous or vice-versa. Since wage-led growth model focuses on specific aspect of the aggregate demand, a set of conditions must exist where the positive effect of wage-led growth is maximized and perhaps undesirable side effects are minimized. A more realistic question is not whether the model works or not but under what conditions does the model work the best?

The question is simple yet its answer possesses great potential for change. If these conditions are easily achievable or generally present, then welfare policy could substitute growth policy. On a broader scope of discourse on inequality, this can provide imperative that

[4] Onanran (2007)

[5] Skott (2017)

[6] Pyo (2015)

reducing inequality can directly promote economic growth, and the spending on welfare could be regarded as investment.

In this paper I will present the theoretical background proposed by the supporters of the wage-led growth paradigm. Then I will investigate several cases of policy implementation where the government took active role in increasing the wage of lower income bracket. These policies range from implementing progressive tax system to expanding welfare and increasing minimum wage. It is important to note that these policies now classified as wage-led growth policy were not implemented as one as it is a relatively new concept. Nonetheless I argue under any name the effect of these policies are similar. For the scope of the paper, I will focus specifically on comparing the growth of the economy prior to and after the implementation of policy in order to determine the “growth effect” of the policy. In order to discover the trend in GDP growth I will analyze the ten year span of data, three prior to the policy and seven afterwards. A “success case” refers to an upward trend in growth rate post policy implementation. A “failed case” refers to a downward trend in growth rate post policy implementation. By comparing the different conditions between success cases and failed cases, I will derive a set of generally acceptable conditions that can result in success of wage-led growth.

I conclude that conditions required for success of wage-led growth policies includes low dependency in net exports as a share of GDP. Furthermore for a sustainable growth the industrial sector must produce highly inelastic goods. Lastly the rate of self-employment must be small within the GDP.

2 Theoretical Background

Supporters of wage-led growth theory argues that wage-led growth paradigm can provide engine of growth for both short term and long term[7]. For short term measures, wage-led growth is based on income effect of people in lower income bracket. As mentioned in the introduction, supporters of wage-led growth view the higher marginal propensity of consumption for this demographic as exploitable. In the long term however, these post-Keynesian economists admit that sustainable growth largely depends on improvement in productivity[8]. Yet one of many controversial mechanisms of wage-led growth is how it promotes innovation. If the wage in the hands of cohort with high marginal propensity to consume increases, it suggests that savings will decrease and by extension will investment. Most common explanation for how wage-led growth promotes innovation relies on expansion of supply from increased demand- because aggregate demand increases, aggregate supply must increase and this will lead to investment. Of course supporters of wage-led growth realizes that this link is weak and vague, thus argues that until the supply side of economy "catches up" with the increased demand, the public sector must increase its investment to fill the interim[9]. In essence the public sector must lead the charge with surge in wages for growth and further investment from private sector.

Based on these theoretical evidence, the case studies examined will be limited to those countries which either fully implemented both short term redistribution policy and government investment in infrastructure. Three of the most prominent success cases of wage-led growth are Brazil, Sweden, and Norway.

3 Success Cases

[7] For instance, in Karl Polanyi Conference (2017), Onaran defines: "wage-led growth theory emphasizes two axis: one led by increasing wage in order to increase consumption, and one backing this (consumption) with expanding public investments."

[8] For instance, in an interview with Song (2017), Stockhammer states 'in the end, productivity… is the key for a long term growth."

[9] Onaran (2017)

3.1 Brazil (2003~2010)

Brazil under President Lula's administration promoted very progressive economic policies. "When money goes to the rich it's called investment, but when it goes to the poor it's a cost," said Lula as he expanded Brazil's welfare for the poorest of the poor[10]. The most famous of these policies were Bolsa Familia, or family allowance which provided financial help to low income Brazilian families in condition of the children's assured attendance to school[11]. Along with expansion of short term welfare, Lula's administration invested over 500 billion Brazilian Real, which is nearly 140 billion US Dollars.

Figure 1: Brazil's GDP (2000~2010)

As visible from the ten year span of data, Brazil successfully turned around the downward trend and experienced great growth.

3.2 Sweden (1956~1970)

After its introduction to the social democratic party of Sweden, Rehn-Meidner Model has been the poster child of Nordic welfare states. With its core target at income equality

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[10] Leahy (2014)

[11] World Bank (2013)

across occupations and full employment, Swedish state quickly increased public sector spending[12]. During this period Swedish GDP steadily experienced growth as depicted in figure 2.

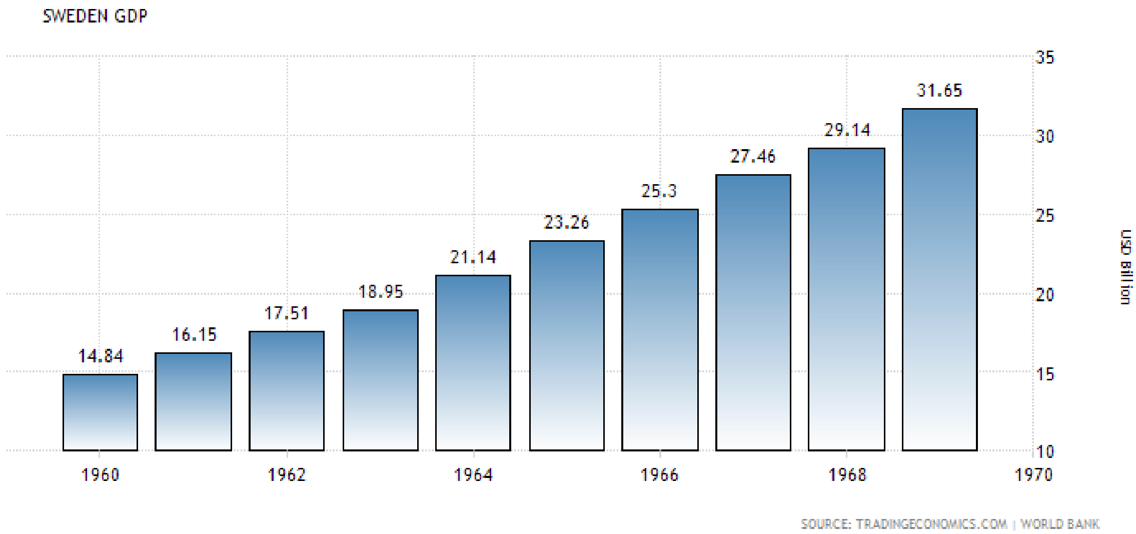

Figure 2: Sweden's GDP (1960~1970)

3.3 Norway (1958~)

Norway is another success case advertised by the proponents of wage-led growth. Since the full establishment of its welfare structure in the late 50s, Norway remained one of the leading welfare states in the world[13]. Through consistent regime under social democrat party Norway slowly and steadily implemented its welfare and invested in its infrastructures. Norwegian growth accelerated during the 60s as shown in Figure 3.

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[12] The Swedish Model (2009)

[13] Research Council of Norway, Business Insider (2016),

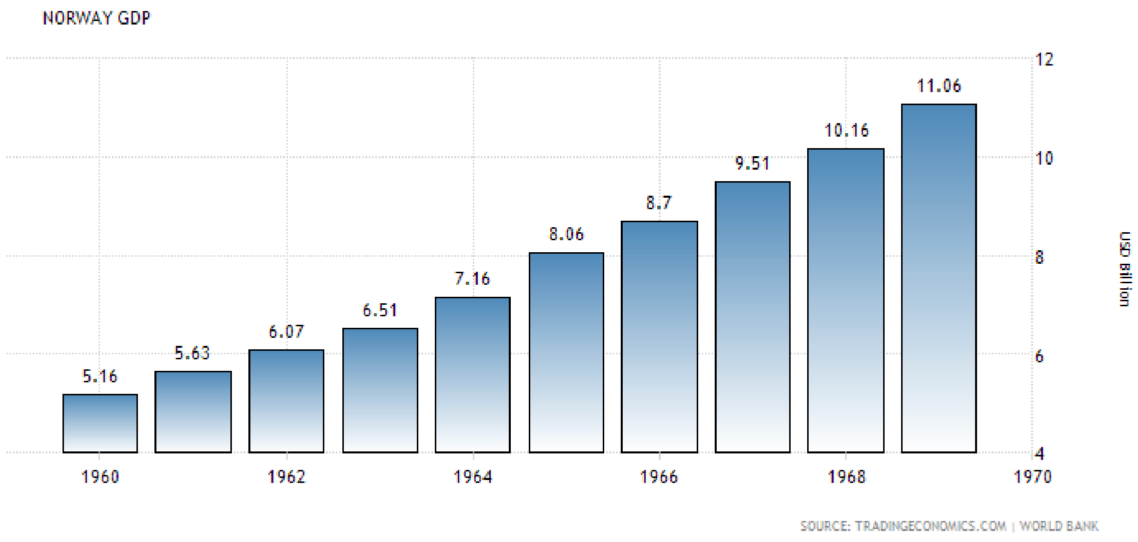

Figure 3: Norway's GDP (1960~1970)

4 Failed Cases

Of course increase in welfare and expansion of public sector does not guarantee economic growth. Some countries expanded the welfare state and poured in public funding to sponsored projects and investments beyond their capabilities. In order to comply with the assumptions of wage-led growth, the failed cases will only include nations with increase in wage or welfare spending and expanded government investments.

4.1 China (2013~)

China's economy is generally not deemed as a failure- in fact it is nominally the second largest economy in the world[14]. However China's growing initiative to reduce inequality which aligns with the principles of wage-led growth did not mend the slowdown in its growth. On 2013, Xi Jinping established the initiative to fix target the growing inequality with specific policies such as tax reduction, growing the share of domestic market, and doubling the labor income by year 2020[15].

[14] IMF (2017)

[15] The Economist (2013)

China has been a diligent student of expanding government investments in infrastructure as well. China's M2 supply has grown at an almost constant rate while manufacturing PMI, indicator of expansion in manufacturing sector has grew at a much slower rate, even decreased at times. With the construction boom that occurred during the same period it's not difficult to infer a significant injection of fund to construction.

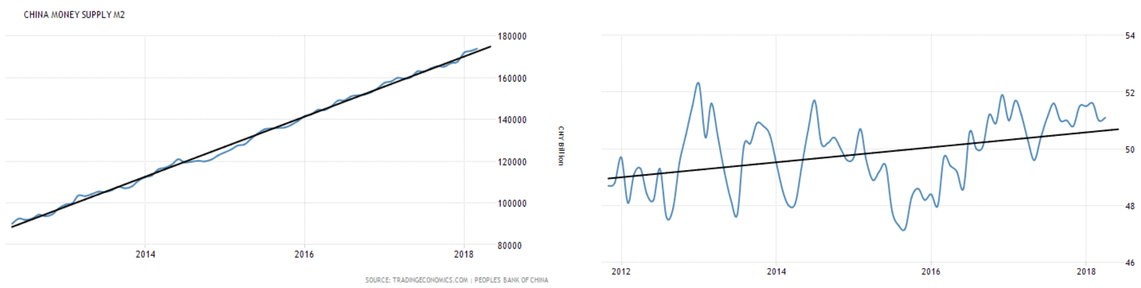

Figure 4: China's M2 growth vs Manufacturing PMI Growth (2012~2017)

While China's GDP still grew during this period, unlike the countries in success cases whom have experienced either acceleration or steady growth, China's growth slowed down.

Figure 5: China's GDP (2010~2017)

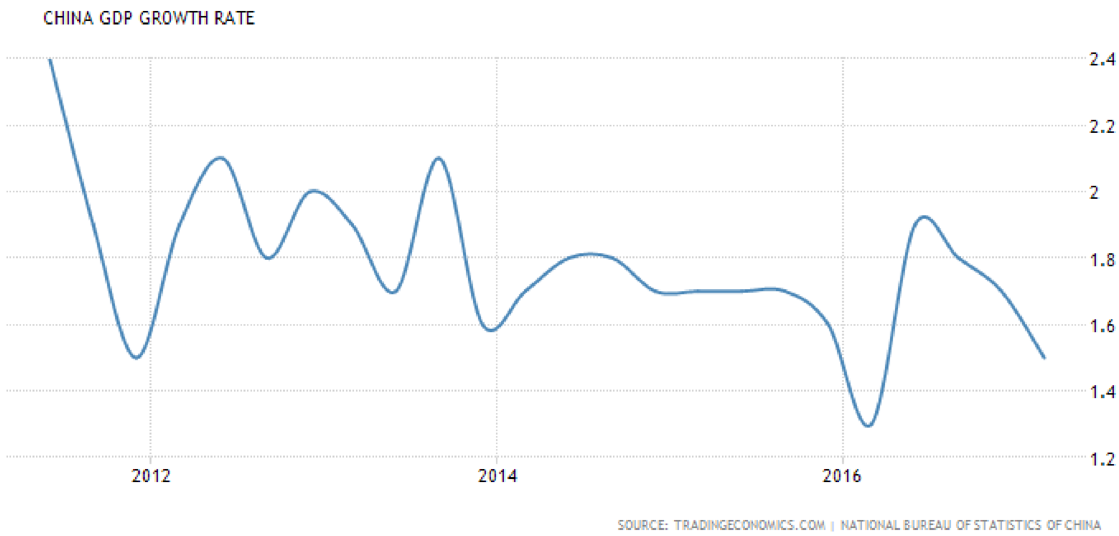

Figure 6: China's GDP Growth Rate (2010~2017)

4.2 Finland (2011~)

Finland has done everything by the book according to wage-led growth theory. To recover from the 2008 crisis and fall of Nokia, Finnish government adopted the adjustable pension payment for workers who worked for longer duration[16]. Moreover even during the crisis when unemployment rate was as high as 9.2%, Finnish government did not make cuts to unemployment benefits. Nevertheless, Finland's economy did not perform well.

Figure 7: Finland's GDP (2008~2017)

Figure 7 describes Finland's situation during the recovery. With injection of

[16] Risku (2012), Ambachtsheer (2013)

government funds and recovery of manufacturing sector Finnish economy experienced increased growth yet these policies could not bear the fall of Nokia and prolonged unemployment for many.

4.3 Greece (1981~2009)

Proponents of wage-led growth would be unhappy with analysis of Greece as a case of wage-led growth. In fact for econometric analysis of European nations, Greece showed a strong negative correlation between investment and wage-led policies that was normalized by fourteen other data points from what's majorly Western European nations[17]. Nonetheless Greece carried out core policies of wage-led growth from the early 80s. When Andreas Papandreou became the prime minister of Greece in 1981, his administration increased minimum wage, expanded health care, and established nationalized scholarship for study abroad programs[18].

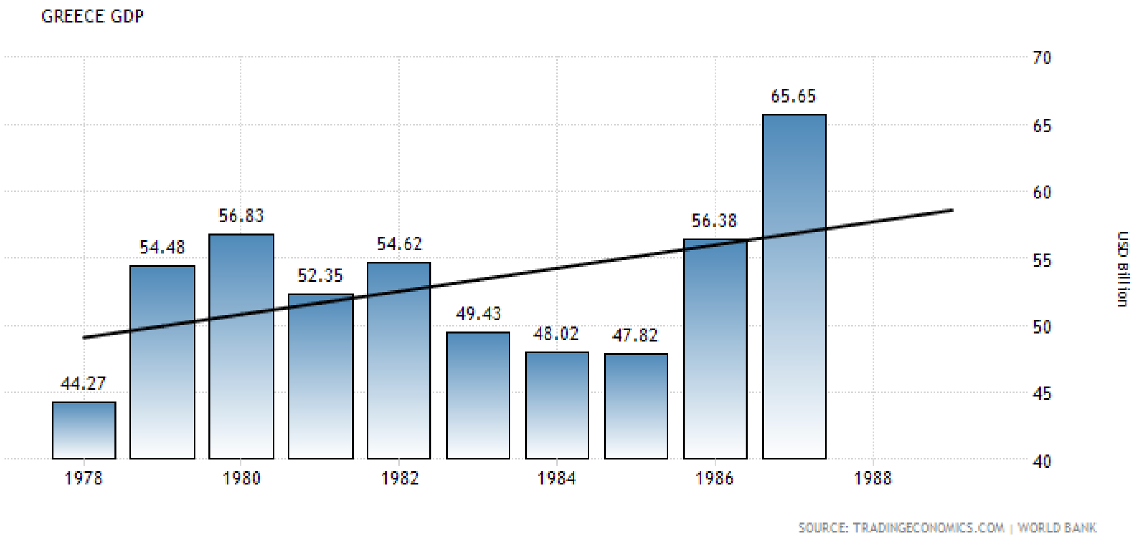

Figure 8: Greece's GDP (1978~1988)

In Figure 8, Greece fails to show an upward trend post to implementing its welfare policies. This is especially notable given that Greece has also joined the European Union in

[17] Onaran and Obst (2016)

[18] Pagedas (2015), Chosun Ilbo (2016)

1981. Now we know what numbers Greece presented was lies and if any factor contributed to its Growth during the late 80s and 90s it was the credibility gained from joining the EU. Now Greece remains as an example of welfare failure.

5 Comparison

In analyzing the common conditions among the two groups, I discovered three large divide between the success cases and failed cases.

5.1 GDP Composition

First major difference between success cases and failed cares is its composition of GDP. For Brazil, Sweden and Norway during the implementation of wage-led growth policies the proportion of its GDP was rather low. Brazil's exports only composed 15.2% of GDP at its peak in 2003, and consistently fell to 10.7% by 2010[19]. For Sweden and Norway, the exports composed 22.6% and 36.3% respectively. Short of Norway, other nations in success cases have lower composition of exports as part of the GDP compared to Finland's 39.2%, China's 26.5%, and Greece's 30.5%.

Increase in wage means increase in cost of production for domestic firms which drives these producers to be less competitive in international commodity market, decreasing the net export. Based on the model for aggregate demand, it can be theorized that countries with high dependency on exports as a portion of its GDP will have hard time seeing growth with the wage-led growth model because the increase in consumption is counteracted and overwhelmed by the decrease in exports.

5.2 Industry Composition

Another noticeable difference came from the composition of industry sectors within

[19] Exports of Goods and Services (2003~2010)

GDP. Major industries of success cases all supply goods with inelastic demand. For Sweden, total of 26.6% of its industries fall under high skilled manufacturing such as automobile and telephone, and among service industry, 19.4% is composed of medical services[20]. Norway's biggest export is petroleum. While Brazil's main exports were natural resources with more elastic demand, between 2003 and 2010 China's incredible growth kept the demand for these resources rather high. On the other hand, China's main export consists of manufactured goods with a lot of substitute. Finland depended heavily on Nokia and when the industry made a shift to smartphones, the demand shock was strong. Greece's main source of foreign reserves was tourism and olives and with global financial crisis these elastic demands shrunk at a quick pace.

This can be explained by the aggregate demand function as well. If a nation's industry contains many goods that are inelastic in demand, increase in prices due to increase in production cost does not drive down the net export as much as goods with elastic demand such as tourism. This also indicates that fall in investment will be smaller than the fall induced from elastic goods. Therefore the increase in domestic consumption can overwhelm the decrease in net export and investment.

5.3 Employment Composition

Lastly the composition of employment is a common factor among the respective group of nations. Below is the figure displaying the self-employment rate of OECD nations.

[20] Nace (2015)

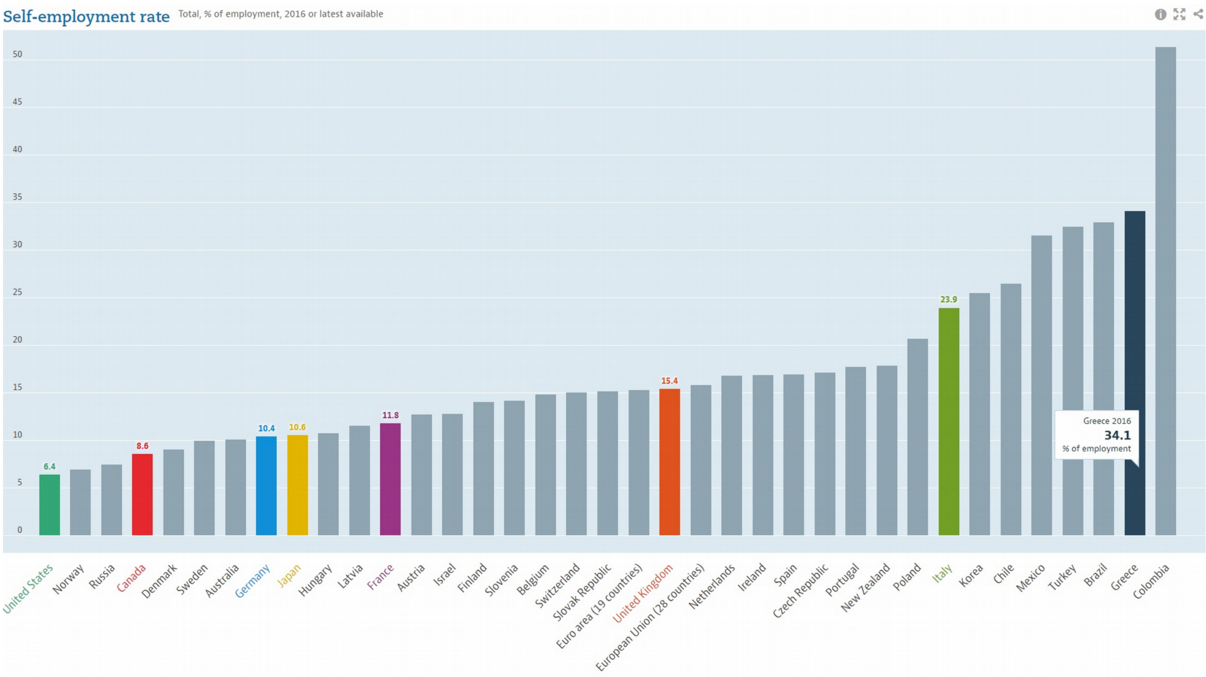

Figure 9: OECD Self-employment rate (2016)

The self-employment serves as most general and consistent divide between success and failure of wage-led growth policy. China is not in OECD, yet its reported self-employment rate in 2016 was 36.4%[21]. Countries investigated by Onaran and Obst's analysis are overwhelmingly on the left side of the chart, generally showing below 20% as its self-employment rate. Notably Brazil which does not fit this frame of division. According to OECD, Brazil's self-employment rate did drop between 2003 and 2010 by 6%, but even at its lowest the self-employment rate was comfortably above 30%.

An interpretation of the relationship between self-employment rate and successfulness of wage-led growth can come from analyzing the composition of the self-employed workers. Many self-employed worker are part of a family owned small businesses such as restaurants and farms. These self-employed workers not only are the main suppliers of minimum wage labor but also the main users of minimum wage labor. It can be assumed that increase in minimum wage can easily drive the cost of operation beyond the affordable

[21] Self-Employed, Total (2016)

limit for each small businesses, thus driving the self-employed to the unemployed without any income, effectively cancelling the impact of minimum wage increase.

6 Conclusion

Wage-led growth theory is a new approach to interpreting economic growth and inequality. It suggests some valid points on current inequality and how it hinders growth. Nevertheless the theory in action has proven to be suboptimal for many economies. Even for the success cases such as Sweden, and Norway, truly notable "growth" generally came as a outcome of reduction in welfare and implementation of neoclassical policies. Brazil which was a model for wage-led growth has suffered a significant slowdown in its economy since importers of the natural resources, mainly China, had reduced the imports.

However the both the success cases and the failed cases can work as a mirror for some governments actively looking for a substitute of neoclassical growth model. If the nation has low dependency on exports and large domestic market, is an exporter of inelastic goods, and have relatively small self-employment option of wage-led growth may be worthwhile to examine as a measure that can mitigate inequality and promote growth.

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