Negative: Semiconductor Cooperation - EU

By “Coach Vance” Trefethen

AFF plan has the US cooperate with the EU through the TTC (Trade & Technology Council, an intergovernmental committee that's supposed to help US/EU trade cooperation but doesn't actually do much) to do training of workers for building semiconductors.

Negative: Semiconductor Cooperation - EU 2

INHERENCY - Status Quo policies will solve 2

1. CIHPS Act solves for labor shortages 2

CHIPS Act contains funding for work force development and Intel is using it to train workers 2

2. Markets solve for semiconductor shortages 2

Government intervention isn't needed and won't solve: Markets will solve for semiconductor shortages 2

3. Corporations solve for geopolitical risk 3

Corporations have every incentive to avoid or solve for geopolitical risk (like "all the chips are made in Taiwan!") and they are solving for it 3

HARMS / SIGNIFICANCE 3

1. Semiconductor supply chain isn't endangered 3

Semiconductor supply chain is much stronger today than it was 5 years ago and continuing to improve 3

"Amazing" rebound in semiconductor supply. Massive growth is happening under Status Quo policies - with no additional funding 4

2. A/T "Labor shortages" - Not the real problem 4

Even if there are labor shortages, other factors are bigger risks and pressures on the semiconductor industry 4

3. Europe doesn't need it 4

Europe doesn't need more advanced semiconductor industry 4

SOLVENCY 5

1. Europeans won't do it 5

Link: AFF can't fiat in their plan that the EU pays for the plan and cooperates with it 5

Failure: EU has already said they don't want to fund any semiconductor initiatives 5

2. TTC (EU/US Trade & Technology Council - the AFF's plan actor) mechanism fails 5

TTC is a failure and it's hard to have confidence it will be around much longer 5

TTC totally fails at coordinating US/EU technology trade 5

3. Already tried & failed 6

US / EU already tried to do a semiconductor chip agreement thru TTC in 2021. Should have worked by now if it were going to work 6

4. Worker training won't solve 6

Heavy competition for workers means training alone won't solve. Immigration policy changes would be needed 6

5. US manufacturing won't solve for import dependence 6

US will still be dependent on Taiwan because (even if they have the labor) they won't manufacture the high end chips here 6

DISADVANTAGES 7

1. Economic damage from deficit spending 7

Link: AFF increases federal government spending 7

Impact: Every increase in the deficit hurts the economy 7

Negative: Semiconductor Cooperation - EU

INHERENCY - Status Quo policies will solve

1. CIHPS Act solves for labor shortages

CHIPS Act contains funding for work force development and Intel is using it to train workers

NEW YORK TIMES 2023. (journalists Don Clark and Ana Swanson) 1 Jan 2023 "U.S. Pours Money Into Chips, but Even Soaring Spending Has Limits" (accessed 16 Apr 2023) https://www.nytimes.com/2023/01/01/technology/us-chip-making-china-invest.html

The CHIPS Act contains funding for work force development. The Commerce Department, which is overseeing the doling out of grant money from the CHIPS Act’s funds, has also made it clear that organizations hoping to obtain funding should come up with plans for training and educating workers. Intel, responding to the issue, plans to invest $100 million to spur training and research at universities, community colleges and other technical educators. Purdue University, which built a new semiconductor laboratory, has set a goal of graduating 1,000 engineers each year and has attracted the chip maker SkyWater Technology to build a $1.8 billion manufacturing plant near its Indiana campus.

2. Markets solve for semiconductor shortages

Government intervention isn't needed and won't solve: Markets will solve for semiconductor shortages

Dr. Carlo Stagnaro 2022 (research and studies director of the Bruno Leoni Institute. Previously he was Head of the Minister's Technical Secretariat at the Ministry of Economic Development. He graduated in Environmental and Territorial Engineering from the University of Genoa and a PhD in Economics, Markets, Institutions from IMT Alti Studi - Lucca. He is part of the editorial staff of the magazines Energia and Aspenia and is a member of the Academic Advisory Council of the Institute of Economic Affairs) "Globalization is still key to end semiconductor crisis" (accessed 16 Apr 2023) (accessed 16 Apr 2023) https://www.infrajournal.com/en/w/globalization-is-still-key-to-end-semiconductor-crisis

The solution to the semiconductor crisis will come as planned and announced investments become effective: this is already happening. The end of the tunnel is in sight. There may be good reasons for Western governments to rein in and support domestic industry, including promoting R&D and stimulating innovation of products that are highly critical to our goals of making the economy more sustainable. But all of the above has little to do with the causes, and will not improve the solution, of the current shortages which will be ended by, surprise surprise, globalization.

3. Corporations solve for geopolitical risk

Corporations have every incentive to avoid or solve for geopolitical risk (like "all the chips are made in Taiwan!") and they are solving for it

Scott Lincicome & Ilana Blumsack 2021 (Lincicome - senior visiting lecturer at Duke University Law School; spent two decades practicing international trade law at White & Case LLP, where he litigated national and multilateral trade disputes. Blumsack - Economics Research Associate, Cato Institute) 17 Dec 2021 "The Top Seven Reasons to Oppose New Semiconductor Subsidies" (accessed 16 Apr 2023) https://www.cato.org/blog/top-seven-reasons-oppose-new-semiconductor-subsidies

Subsidy supporters often justify their position by [pointing](https://www.cnbc.com/2021/10/29/apple-chip-woes-will-end-but-us-china-supply-chain-war-just-starting-.html) to the geopolitical risks that firms incur when buying semiconductors made in China or in neighboring Taiwan. However, it beggars belief that large multinational corporations haven’t already made such calculations when determining their sourcing decisions: geopolitical risk is always a [major factor](https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/how-global-companies-can-manage-geopolitical-risk) that companies consider when making overseas investment and supply chain decisions, and large investment firms such as BlackRock even [operate](https://www.blackrock.com/corporate/insights/blackrock-investment-institute/interactive-charts/geopolitical-risk-dashboard) “Geopolitical Risk” dashboards for their clients. Furthermore, large chip‐​consuming companies such as Ford and Apple [are already moving to adjust](https://www.cnbc.com/2021/11/29/commerce-secretary-says-us-house-needs-to-pass-chips-act-immediately-to-ease-semiconductor-shortage.html) their semiconductor supply chains – for example by partnering with manufacturers for new, “nearshored” supply. Indeed, the Washington Post just recently [reported](https://t.co/Z1eIbynXwU) that U.S.-based GlobalFoundries’ customers “are ready to invest to expand production to secure steady supplies” in the United States. Thus, if large multinational chip consumers deem Taiwan to be too risky and want chip supplies elsewhere, there’s an easy fix: they can pay for it. And that’s just what they’re doing.

HARMS / SIGNIFICANCE

1. Semiconductor supply chain isn't endangered

Semiconductor supply chain is much stronger today than it was 5 years ago and continuing to improve

Dale Ford 2022 (chief analyst for Electronics Components Industry Association; 30 years of expertise in technology trends, competitive analysis, forecasting and supply-demand research of the electronics, semiconductor and electronics components industries) 23 Aug 2022 " Q&A with ECIA chief analyst Dale Ford" (accessed 15 Apr 2023) https://electronics360.globalspec.com/article/18461/q-a-with-ecia-chief-analyst-dale-ford

In my assessment, the supply chain is much stronger today than it was five years ago. Leaders in the industry have continually learned from experience and adopted new practices to improve performance and efficiency. [**END QUOTE**] Certainly, the adoption of digital technology, automation, data analytics, etc. have delivered a great boost. ECIA engaged in many activities that have and will deliver important benefits to players in the supply chain. A partial list of recent contributions by ECIA and its members includes the launch of the Paul Andrews Continuing Education (PACE) program for training new electronics supply chain professionals, business review best practices identification, design registration studies to support greater efficiency and performance, environmental compliance updates, China tariff analysis and cybersecurity and fraud prevention best practices. **[HE CONTINUES LATER IN THE CONTEXT QUOTE**] This is an industry that will continue to deliver improved performance as it works together to optimize the performance of the supply chain.

"Amazing" rebound in semiconductor supply. Massive growth is happening under Status Quo policies - with no additional funding

Dale Ford 2022 (chief analyst for Electronics Components Industry Association; 30 years of expertise in technology trends, competitive analysis, forecasting and supply-demand research of the electronics, semiconductor and electronics components industries) 23 Aug 2022 " Q&A with ECIA chief analyst Dale Ford" (accessed 15 Apr 2023) https://electronics360.globalspec.com/article/18461/q-a-with-ecia-chief-analyst-dale-ford

Since the start of the recovery two years ago, worldwide unit shipments of logic ICs has increased by over 63% according to WSTS statistics. Analog IC unit shipments have jumped by over 50% and discrete semiconductor shipments have expanded by over 30%. Remember that it takes two to three years to bring a new fab online once construction has started. This amazing growth in supply was delivered without the benefit of injections of increased capital investments beyond previous plans. After so many years following the semiconductor industry it is hard to say that I am surprised anymore after seeing its continued success. A more accurate word to describe my experience is “amazed.”

2. A/T "Labor shortages" - Not the real problem

Even if there are labor shortages, other factors are bigger risks and pressures on the semiconductor industry

Dale Ford 2022 (chief analyst for Electronics Components Industry Association; 30 years of expertise in technology trends, competitive analysis, forecasting and supply-demand research of the electronics, semiconductor and electronics components industries) 23 Aug 2022 " Q&A with ECIA chief analyst Dale Ford" (accessed 15 Apr 2023) https://electronics360.globalspec.com/article/18461/q-a-with-ecia-chief-analyst-dale-ford

Factors such as labor shortages and skills gap are just a few of the macro-environmental factors that impact the electronics supply chain. In the past year inflation and the impact on material and labor costs have played an increasing role. Analysis similar to the GDP analysis described above also shows that when the consumer price index passes a certain threshold it signals an eventual downturn in the growth of semiconductor and electronic revenue. In the near term, increased prices may provide a temporary boost to growth, but it eventually clips the wings of growth. I have found the Lehigh University Supply Chain Risk Index to be a helpful barometer of the pressures faced by participants in the electronic components supply chain. While this index measures overall supply chain pressures, in my experience it also accurately reflects those pressures in the electronics industry. In the report for Q2 2022, transportation disruption and economic risk clearly outpaced all other risks.

3. Europe doesn't need it

Europe doesn't need more advanced semiconductor industry

Sam Fleming, Peggy Hollinger and Ben Hall 2021 (journalists) FINANCIAL TIMES 21 July 2021 "Semiconductors: Europe’s expensive plan to reach the top tier of chipmakers" (accessed 16 Apr 2023) <https://www.ft.com/content/d365bfe0-98c4-49b5-8e82-dc4386623ace>

European manufacturers such as carmakers just do not need that many of the highest-end chips, says Jens Drews, an executive at GlobalFoundries, an Abu Dhabi-owned chipmaker that produces the most advanced chips in Europe at its site in Saxony, Germany. “My estimate is that 90 per cent of European chip needs until the end of this decade will be for chips of above 10nm,” says Drews. “My strong recommendation is to move away from chasing nanometres to looking at what our industrial needs are and with what technologies those needs are best addressed. The nanometre is only a single dimension and the industry is much more complex now. The sole focus on nanometres is a core weakness in the European Commission’s strategy.”

SOLVENCY

1. Europeans won't do it

Link: AFF can't fiat in their plan that the EU pays for the plan and cooperates with it

Failure: EU has already said they don't want to fund any semiconductor initiatives

Enrique Feas 2023 (Senior Analyst at the Elcano Royal Institute, independent consultant, Adjunct Professor at the IE University and IE School of Global and Public Affairs) 28 Feb 2023 " The US-China technology war and its effects on Europe" (accessed 15 Apr 2023) https://www.realinstitutoelcano.org/en/analyses/the-us-china-technology-war-and-its-effects-on-europe/

In February 2022 the European Commission proposed its own Chips Act, promising to mobilise over €43 billion to double the EU’s share of semiconductor production (rising from the current figure of 10% to 20%). The drive is centred around three priorities: building capacity in technology and innovation; security of supplies; and monitoring and crisis response measures. Yet, once again, despite the need for an urgent response to the US measures (to avoid the flight of companies across the Atlantic), it appears that Member States are not brave enough to accept the need to finance European public goods, never mind grasping the nettle of agreements to the state aid system. The Dutch Government has already [rejected the use of public funds](https://www.ft.com/content/f1cfc042-2620-453d-b0c0-585c79571d9a). The results are all too predictable: an underprovision of these public goods; and European investment that is tied to relative fiscal balances and debt levels and thus insufficient.

2. TTC (EU/US Trade & Technology Council - the AFF's plan actor) mechanism fails

TTC is a failure and it's hard to have confidence it will be around much longer

Kenneth Propp 2022 (*nonresident senior fellow at the Atlantic Council Europe Center, teaches EU law at Georgetown University Law Center, and is a former legal counselor to the US Mission to the EU in Brussels*) 2 Dec 2022 "The big problems you won’t hear about at the EU-US Trade and Technology Council" (accessed 16 Apr 2023) https://www.atlanticcouncil.org/blogs/new-atlanticist/the-big-problems-you-wont-hear-about-at-the-eu-us-trade-and-technology-council/

Compartmentalizing the big issues in transatlantic trade and technology policy in this fashion has led to a palpable sense of frustration and disappointment in Washington that the TTC is not fulfilling its admirable goals. Diminished expectations were perhaps inevitable: There never was any realistic prospect that Washington or Brussels would slow their respective legislative agendas to accommodate a technocratic coordination process. Nor is the TTC’s elaborate format necessarily the panacea for resolving thorny policy problems. Nonetheless, the TTC’s patent exclusion of the issues of greatest import in transatlantic economic affairs from its deliberations does not inspire confidence that it will prove to be a lasting institution.

TTC totally fails at coordinating US/EU technology trade

Clete R. Williams 2022 (*nonresident senior fellow at the Atlantic Council’s GeoEconomics Center and former deputy director of the National Economic Council in the White House*) 5 Dec 2022 "The US and EU need a sturdier structure to resolve their trade squabbles" (accessed 16 Apr 2023) https://www.atlanticcouncil.org/blogs/new-atlanticist/the-us-and-eu-need-a-sturdier-structure-to-resolve-their-trade-squabbles/

At the moment, US-EU trade relations appear to be on a downward spiral with the TTC’s failure to prevent the adoption of policies that blatantly discriminate against the other side. The United States’ ill-advised EV tax credits, which only provide benefits to vehicles assembled in North America, is the most recent example. But the United States is far from the only offender. The TTC has not even placed a speed bump in the EU’s mission to discriminate against US technology leaders through one-sided digital taxes, imbalanced data disclosure elements in the Digital Marketing Act and Data Act, and the exclusion of US cloud companies from EU and French cloud-security certifications, to name a few. Given the priority that the United States and EU place on joint leadership on climate and digital policies, the fact that both sides are discriminating instead of coordinating with each other is all the more tragic.

3. Already tried & failed

US / EU already tried to do a semiconductor chip agreement thru TTC in 2021. Should have worked by now if it were going to work

[Barbara Moens](https://www.politico.eu/author/barbara-moens/) and [Laurens Cerulus](https://www.politico.eu/author/laurens-cerulus/) 2021. (journalists) 21 Sept 2021 POLITICO "US-EU tech alliance is off to a bad start" (accessed 16 Apr 2023) https://www.politico.eu/article/us-eu-tech-trade-alliance-bad-start/

When it came to more immediate domestic interests in Europe and the U.S., the two sides seemed to struggle to come up with ambitious plans.  Officials wanted to put forward a joint, transatlantic solution to the crisis in the semiconductor industry after supply chain shocks hit European carmakers, U.S. consumer tech makers and many others in the past year. But draft language from earlier this week showed the sides were just as concerned about potential pitfalls as they were about benefits.  The chips partnership “must be balanced and of equal interest for both parties,” officials said, focusing on “avoiding a subsidy race.” The draft statement also looked to ensure export controls of chips technology are designed in ways that avoid a negative “impact on each other’s industries” — an apparent rebuke by EU officials of Washington’s [attempts to ban the sale of high-tech Dutch microchip printing technology](https://www.politico.eu/article/europe-tech-sovereignty-china-peter-wennink-asml/) to China.

4. Worker training won't solve

Heavy competition for workers means training alone won't solve. Immigration policy changes would be needed

NEW YORK TIMES 2023. (journalists Don Clark and Ana Swanson) 1 Jan 2023 "U.S. Pours Money Into Chips, but Even Soaring Spending Has Limits" (accessed 16 Apr 2023) https://www.nytimes.com/2023/01/01/technology/us-chip-making-china-invest.html

Yet training may go only so far, as chip companies compete with other industries that are in dire need of workers. “We’re going to have to build a semiconductor economy that attracts people when they have a lot of other choices,” Mitch Daniels, who was president of Purdue at the time, said at an event in September. Since training efforts may take years to bear fruit, industry executives want to make it easier for highly educated foreign workers to obtain visas to work in the United States or stay after they get their degrees. Officials in Washington are aware that comments encouraging more immigration could invite political fire.

5. US manufacturing won't solve for import dependence

US will still be dependent on Taiwan because (even if they have the labor) they won't manufacture the high end chips here

NEW YORK TIMES 2023. (journalists Don Clark and Ana Swanson) 1 Jan 2023 "U.S. Pours Money Into Chips, but Even Soaring Spending Has Limits" (accessed 16 Apr 2023) https://www.nytimes.com/2023/01/01/technology/us-chip-making-china-invest.html

Still, the ramp-up is unlikely to eliminate U.S. dependence on Taiwan for the most advanced chips. Such chips are the most powerful because they pack the highest number of transistors onto each slice of silicon, and they are often held up as a sign of a nation’s technological progress. Intel long led [the race to shrink the size of transistors](https://www.nytimes.com/2016/05/05/technology/moores-law-running-out-of-room-tech-looks-for-a-successor.html) so more could fit on a chip. That pace of miniaturization is usually described in nanometers, or billionths of a meter, with smaller numbers indicating the most cutting-edge production technology. Then, TSMC surged ahead in recent years.

DISADVANTAGES

1. Economic damage from deficit spending

Link: AFF increases federal government spending

Impact: Every increase in the deficit hurts the economy

Dr William Gale and Benjamin Harris 2010. (Gale - PhD in economics, Stanford Univ.; senior fellow at the Brookings Institution and co-director of the Urban-Brookings Tax Policy Center; former assistant professor of Economics at UCLA, and a senior economist for the Council of Economic Advisers under President George H.W. Bush; Harris - master’s degree in economics from Cornell Univ and master’s degree in quantitative methods from Columbia University; senior research associate with the Economics Studies Program at the Brookings Institution) “A VAT for the United States: Part of the Solution” (notes about the date: This article is one of several in the overall publication at this source. The publication date was 2011, but this article was written in 2010) https://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/1001418-A-Value-Added-Tax-for-the-United-States-Part-of-the-Solution.PDF (accessed 26 Jan 2022)

But even in the absence of a crisis, sustained deficits have deleterious effects, as they translate into lower national savings, higher interest rates, and increased indebtedness to foreign investors, all of which serve to reduce future national income. Gale and Orszag (2004a) estimate that a 1 percent of GDP increase in the deficit will raise interest rates by 25 to 35 basis points and reduce national saving by 0.5 to 0.8 percentage points of GDP.